Cisco IOS System Error Messages
Volume 1 of 2
Release 12.2

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About Cisco IOS Software Documentation

This chapter discusses the objectives, audience, organization, and conventions of Cisco IOS software documentation. It also provides sources for obtaining documentation from Cisco Systems.

Documentation Objectives

Cisco IOS software documentation describes the tasks and commands necessary to configure and maintain Cisco networking devices.

Audience

The Cisco IOS software documentation set is intended primarily for users who configure and maintain Cisco networking devices (such as routers and switches) but who may not be familiar with the tasks, the relationship between tasks, or the Cisco IOS software commands necessary to perform particular tasks. The Cisco IOS software documentation set is also intended for those users experienced with Cisco IOS software who need to know about new features, new configuration options, and new software characteristics in the current Cisco IOS software release.

Documentation Organization

The Cisco IOS software documentation set consists of documentation modules and master indexes. In addition to the main documentation set, there are supporting documents and resources.

Documentation Modules

The Cisco IOS documentation modules consist of configuration guides and corresponding command reference publications. Chapters in a configuration guide describe protocols, configuration tasks, and Cisco IOS software functionality and contain comprehensive configuration examples. Chapters in a command reference publication provide complete Cisco IOS command syntax information. Use each configuration guide in conjunction with its corresponding command reference publication.
Figure 1 shows the Cisco IOS software documentation modules.

**Note**
The abbreviations (for example, FC and FR) next to the book icons are page designators, which are defined in a key in the index of each document to help you with navigation. The bullets under each module list the major technology areas discussed in the corresponding books.

*Figure 1*  
*Cisco IOS Software Documentation Modules*
Master Indexes

Two master indexes provide indexing information for the Cisco IOS software documentation set: an index for the configuration guides and an index for the command references. Individual books also contain book-specific indexes.

The master indexes provide a quick way for you to find a command when you know the command name but not which module contains the command. When you use the online master indexes, you can click the page number for an index entry and go to that page in the online document.

Supporting Documents and Resources

The following documents and resources support the Cisco IOS software documentation set:

- Cisco IOS Command Summary (three volumes)—This publication explains the function and syntax of the Cisco IOS software commands. For more information about defaults and usage guidelines, refer to the Cisco IOS command reference publications.

- Cisco IOS System Error Messages (two volumes)—This publication lists and describes Cisco IOS system error messages. Not all system error 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.

- Cisco IOS Debug Command Reference—This publication contains an alphabetical listing of the debug commands and their descriptions. Documentation for each command includes a brief description of its use, command syntax, usage guidelines, and sample output.

- Dictionary of Internetworking Terms and Acronyms—This Cisco publication compiles and defines the terms and acronyms used in the internetworking industry.

- New feature documentation—The Cisco IOS software documentation set documents the mainline release of Cisco IOS software (for example, Cisco IOS Release 12.2). New software features are introduced in early deployment releases (for example, the Cisco IOS “T” release train for 12.2, 12.2(x)T). Documentation for these new features can be found in standalone documents called “feature modules.” Feature module documentation describes new Cisco IOS software and hardware networking functionality and is available on Cisco.com and the Documentation CD-ROM.

- Release notes—This documentation describes system requirements, provides information about new and changed features, and includes other useful information about specific software releases. See the section “Using Software Release Notes” in the chapter “Using Cisco IOS Software” for more information.

- Caveats documentation—This documentation provides information about Cisco IOS software defects in specific software releases.

- RFCs—RFCs are standards documents maintained by the Internet Engineering Task Force (IETF). Cisco IOS software documentation references supported RFCs when applicable. The full text of referenced RFCs may be obtained on the World Wide Web at http://www.rfc-editor.org/.

- MIBs—MIBs are used for network monitoring. For lists of supported MIBs by platform and release, and to download MIB files, see the Cisco MIB website on Cisco.com at http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml.
New and Changed Information

The following information is new or changed since the last release of the Cisco IOS System Error Messages:

- The Cisco IOS System Error Messages has been divided into two separate documents with the following titles:
  - Cisco IOS System Error Messages, Volume 1 of 2
  - Cisco IOS System Error Messages, Volume 2 of 2
- A new part titled “Glossary of Acronyms” has been added to both volumes of Cisco IOS System Error Messages. This part contains expansions for all acronyms and initialisms included in the documentation. Acronyms and initialisms are not spelled out in the messages unless an expansion is considered necessary for clarity.

Document Conventions

Within Cisco IOS software documentation, the term router is generally used to refer to a variety of Cisco products (for example, routers, access servers, and switches). Routers, access servers, and other networking devices that support Cisco IOS software are shown interchangeably within examples. These products are used only for illustrative purposes; that is, an example that shows one product does not necessarily indicate that other products are not supported.

The Cisco IOS documentation set uses the following conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
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<tbody>
<tr>
<td>^ or Ctrl</td>
<td>The ^ and Ctrl symbols represent the Control key. For example, the key combination ^D or Ctrl-D means hold down the Control key while you press the D key. Keys are indicated in capital letters but are not case sensitive.</td>
</tr>
<tr>
<td>string</td>
<td>A string is a nonquoted set of characters shown in italics. For example, when setting an SNMP community string to public, do not use quotation marks around the string or the string will include the quotation marks.</td>
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</table>

Command syntax descriptions use the following conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
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<tbody>
<tr>
<td>boldface</td>
<td>Boldface text indicates commands and keywords that you enter literally as shown.</td>
</tr>
<tr>
<td>italics</td>
<td>Italic text indicates arguments for which you supply values.</td>
</tr>
<tr>
<td>[x]</td>
<td>Square brackets enclose an optional element (keyword or argument).</td>
</tr>
<tr>
<td>{x</td>
<td>y}</td>
</tr>
<tr>
<td>{x</td>
<td>y}</td>
</tr>
</tbody>
</table>
Nested sets of square brackets or braces indicate optional or required choices within optional or required elements. For example:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ { y</td>
<td>z } ]</td>
</tr>
</tbody>
</table>

Examples use the following conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>screen</td>
<td>Examples of information displayed on the screen are set in Courier font.</td>
</tr>
<tr>
<td>boldface screen</td>
<td>Examples of text that you must enter are set in Courier bold font.</td>
</tr>
<tr>
<td>&lt; &gt;</td>
<td>Angle brackets enclose text that is not printed to the screen, such as passwords.</td>
</tr>
<tr>
<td>!</td>
<td>An exclamation point at the beginning of a line indicates a comment line. (Exclamation points are also displayed by the Cisco IOS software for certain processes.)</td>
</tr>
<tr>
<td>[ ]</td>
<td>Square brackets enclose default responses to system prompts.</td>
</tr>
</tbody>
</table>

The following conventions are used to attract the attention of the reader:

- **Caution**
  Means reader be careful. In this situation, you might do something that could result in equipment damage or loss of data.

- **Note**
  Means reader take note. Notes contain helpful suggestions or references to materials not contained in this manual.

- **Timesaver**
  Means the described action saves time. You can save time by performing the action described in the paragraph.

## Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

### World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following URL:

http://www.cisco.com

Translated documentation is available at the following URL:

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco product documentation from the Networking Products MarketPlace:
  
  http://www.cisco.com/cgi-bin/order/order_root.pl

- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
  
  http://www.cisco.com/go/subscription

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

If you are reading Cisco product documentation on Cisco.com, you can submit technical comments electronically. Click Leave Feedback at the bottom of the Cisco Documentation home page. After you complete the form, print it out and fax it to Cisco at 408 527-0730.

You can e-mail your comments to bug-doc@cisco.com.

To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

Cisco Systems
Attn: Document Resource Connection
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.
Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com is a highly integrated Internet application and a powerful, easy-to-use tool that provides a broad range of features and services to help you to

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

You can self-register on Cisco.com to obtain customized information and service. To access Cisco.com, go to the following URL:

http://www.cisco.com

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available through the Cisco TAC: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Inquiries to Cisco TAC are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Which Cisco TAC resource you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

The Cisco TAC Web Site allows you to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to the following URL:

http://www.cisco.com/tac

All customers, partners, and resellers who have a valid Cisco services contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to the following URL to register:

http://www.cisco.com/register/
If you cannot resolve your technical issues by using the Cisco TAC Web Site, and you are a Cisco.com registered user, you can open a case online by using the TAC Case Open tool at the following URL:
http://www.cisco.com/tac/caseopen
If you have Internet access, it is recommended that you open P3 and P4 cases through the Cisco TAC Web Site.

**Cisco TAC Escalation Center**

The Cisco TAC Escalation Center addresses issues that are classified as priority level 1 or priority level 2; these classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer will automatically open a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to the following URL:

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled; for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). In addition, please have available your service agreement number and your product serial number.
System Error Messages Overview

This publication lists and describes Cisco IOS system error messages. 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, and others may help diagnose problems with communications lines, internal hardware, or the system software.

This manual also includes error messages that appear when the system crashes.

Obtaining Technical Assistance

When the recommended action of an error message advises that you contact Cisco technical support, open a case with the Cisco Technical Assistance Center (TAC). Please see the section “Contacting TAC by Using the Cisco TAC Website” in the preface “About Cisco IOS Software.”

Additional Resources

The Cisco Technical Assistance Center (TAC) has made available to all registered users an online tool, the Cisco IOS Error Message Decoder, for researching and resolving error messages. All you have to do is copy an error message or a 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 IOS Error Message Decoder makes it easy for you to distinguish between error 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 with researching and resolving your Cisco IOS error messages, try out the new Cisco IOS Error Message Decoder tool at http://www.cisco.com/support/Errordecoder/error-decoder.html.
How This Manual Is Organized

This manual contains three chapters:

- The “System Error Messages” chapter provides descriptions of error messages related to the Cisco IOS software, except for the CMCC facility. The messages are organized according to the particular system facility that produces the messages. The facility sections appear in alphabetical order, and within each facility section, messages are listed alphabetically by mnemonic. Each error message is followed by an explanation and a recommended action.

- The “CMCC System Error Messages” chapter in Volume 2, provides descriptions of error messages related to the CMCC product family, which includes:
  - The Channel Interface Processor (CIP)
  - The enhanced CIP (CIP2)
  - The Escon Channel Port Adapter (ECPA)
  - The enhanced ECPA (ECPA4)
  - The Parallel Channel Port Adapter (PCPA)
  - The Channel Port Adapter (CPA).

  The format of CMCC error messages differs from the format of other system error messages. For more information on CMCC message format, see the “CMCC System Error Messages” chapter.

- The “System Failure Error Messages” chapter provides descriptions of error messages that appear when the system image crashes.

The CMCC system error messages appear in a separate index after the index for system error messages. For alphabetizing purposes, lowercase and uppercase letters are treated the same.

The index of error messages is alphabetized as follows:
1. Facility code
2. Mnemonic
3. Severity level

Note: You can also view online system error messages that pertain to Cisco IOS Release 12.2-based releases. See the Cisco IOS System Error Messages for 12.2.

How to Read System Error Messages

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

%FACILITY-SUBFACILITY-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 1 lists the system facility codes.

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 2 lists the severity levels.

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 3 lists the representations of variable fields and the type of information in them.

The following is a sample system error message:

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

Some error messages also indicate the card and slot reporting the error. These error messages 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. VIP and FEIP are possible card types.

**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 reporting the error. It is shown as **SLOT** followed by a number (for example, **SLOT5**).

---

**Note**

The prepended portion of the error message (%CARD-SEVERITY-MSG:SLOT) is not shown in the error message listings in this manual.

---

### Table 1  Facility Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAA</td>
<td>TACACS+ authentication, authorization, and accounting security</td>
</tr>
<tr>
<td>ACLMERGE</td>
<td>Access control list merge</td>
</tr>
<tr>
<td>ADI</td>
<td>Adjacency subsystem</td>
</tr>
<tr>
<td>AIP</td>
<td>ATM Interface Processor</td>
</tr>
<tr>
<td>ALARM</td>
<td>Telco chassis alarm related</td>
</tr>
<tr>
<td>ALC</td>
<td>ATM line card (ALC)</td>
</tr>
<tr>
<td>ALIGN</td>
<td>Memory optimization in Reduced Instruction Set Computer (RISC) processor</td>
</tr>
<tr>
<td>ALPS</td>
<td>Airline Protocol Support</td>
</tr>
<tr>
<td>AMD79C971_FE</td>
<td>Am79C971 Fast Ethernet device driver</td>
</tr>
<tr>
<td>AMDP2_FE</td>
<td>AMDP2 Ethernet and Fast Ethernet</td>
</tr>
<tr>
<td>AP</td>
<td>Authentication Proxy (AP)</td>
</tr>
<tr>
<td>ARAP</td>
<td>Apple Remote Access Protocol (ARAP)</td>
</tr>
<tr>
<td>AS5400</td>
<td>Cisco AS5400 platform</td>
</tr>
<tr>
<td>AS5400_ENVM</td>
<td>Cisco AS5400 environmental monitor</td>
</tr>
<tr>
<td>ASPP</td>
<td>Asynchronous Security Protocol (ASPP)</td>
</tr>
<tr>
<td>AT</td>
<td>AppleTalk (AT)</td>
</tr>
<tr>
<td>ATM</td>
<td>Asynchronous Transfer Mode</td>
</tr>
<tr>
<td>ATMCES</td>
<td>ATM access concentrator PCI port adapter driver</td>
</tr>
</tbody>
</table>
### Table 1 Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMOC3</td>
<td>ATM OC-3 network module</td>
</tr>
<tr>
<td>ATMSSCOP</td>
<td>ATM Service Specific Connection Oriented Protocol (SSCOP)</td>
</tr>
<tr>
<td>AUTORP</td>
<td>PIMv2 AUTORP</td>
</tr>
<tr>
<td>BAP</td>
<td>PPP Bandwidth Allocation Protocol (BAP)</td>
</tr>
<tr>
<td>BCM3220</td>
<td>Cable modem MAC controller interface</td>
</tr>
<tr>
<td>BGP</td>
<td>Border Gateway Protocol</td>
</tr>
<tr>
<td>BIT</td>
<td>Dynamic bitlist</td>
</tr>
<tr>
<td>BRIMUX</td>
<td>Cisco AS5200 BRIMUX board</td>
</tr>
<tr>
<td>BSC</td>
<td>Binary Synchronous Communications protocol</td>
</tr>
<tr>
<td>BSTUN</td>
<td>Block serial tunneling (BSTUN)</td>
</tr>
<tr>
<td>C1400_PCI</td>
<td>Protocol control information (PCI) bus for Cisco 1400 platform</td>
</tr>
<tr>
<td>C1600</td>
<td>Cisco 1600 platform</td>
</tr>
<tr>
<td>C1700</td>
<td>Cisco 1700 platform</td>
</tr>
<tr>
<td>C1700_EM</td>
<td>Cisco 1700 VPN module hardware accelerator for IP security</td>
</tr>
<tr>
<td>C2600</td>
<td>Cisco 2600 platform</td>
</tr>
<tr>
<td>C2600_MAINBOARD_ASYNC_PQUICC</td>
<td>MPC860 quad integrated communications controller for the Cisco 2600 platform</td>
</tr>
<tr>
<td>C29ATM</td>
<td>Catalyst 2900XL ATM module</td>
</tr>
<tr>
<td>C2KATM</td>
<td>Catalyst 2820 ATM module</td>
</tr>
<tr>
<td>C3600</td>
<td>Cisco 3600 platform</td>
</tr>
<tr>
<td>C4GWY_DSPRM</td>
<td>DSP Resource Manager</td>
</tr>
<tr>
<td>C542</td>
<td>Voice driver for modular access routers</td>
</tr>
<tr>
<td>C54X</td>
<td>VoIP driver</td>
</tr>
<tr>
<td>C54x</td>
<td>VoIP DSP driver</td>
</tr>
<tr>
<td>C5RSP</td>
<td>Cisco Catalyst 5000 platform</td>
</tr>
<tr>
<td>C6KENV</td>
<td>Cisco Catalyst 6000 environmental system</td>
</tr>
<tr>
<td>C6KPWR</td>
<td>Cisco Catalyst 6000 power control system</td>
</tr>
<tr>
<td>C6MSFC</td>
<td>C6MSFC (Draco)</td>
</tr>
<tr>
<td>C6SUP</td>
<td>C6SUP-specific</td>
</tr>
<tr>
<td>C7200_TDM</td>
<td>Cisco 7200 midplane TDM bus</td>
</tr>
<tr>
<td>CAIM</td>
<td>Compression Advanced Interface Module (CAIM)</td>
</tr>
<tr>
<td>CALL_CONTROL</td>
<td>Call control</td>
</tr>
<tr>
<td>CALL_MGMT</td>
<td>Call management subsystem</td>
</tr>
</tbody>
</table>
### Table 1  Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALLPROG</td>
<td>Call progress notification subsystem</td>
</tr>
<tr>
<td>CALLRECORD</td>
<td>Modem Call Record</td>
</tr>
<tr>
<td>CALLTRKR</td>
<td>Call Tracker subsystem</td>
</tr>
<tr>
<td>CARRIER</td>
<td>DFC carrier</td>
</tr>
<tr>
<td>CASA</td>
<td>Cisco Appliance and Services Architecture (CASA)</td>
</tr>
<tr>
<td>CBUS</td>
<td>ciscoBus controller</td>
</tr>
<tr>
<td>CCH323</td>
<td>Call Control for H323</td>
</tr>
<tr>
<td>CCPROXY</td>
<td>H323 proxy</td>
</tr>
<tr>
<td>CDM</td>
<td>Cable Data Modem subsystem</td>
</tr>
<tr>
<td>CDP</td>
<td>Cisco Discovery Protocol (CDP)</td>
</tr>
<tr>
<td>CE3</td>
<td>CE3 port adapter (CE3)</td>
</tr>
<tr>
<td>CES</td>
<td>Circuit Emulation Service (CES)</td>
</tr>
<tr>
<td>CHOPIN</td>
<td>Cisco Chopin</td>
</tr>
<tr>
<td>CHOPIN_MAINBOARD_ASYNC_PQII</td>
<td>Chopin Main Board Asynchronous driver</td>
</tr>
<tr>
<td>CI</td>
<td>Cisco 7500 platform chassis interface</td>
</tr>
<tr>
<td>CIPDUMP</td>
<td>CIP core dump</td>
</tr>
<tr>
<td>CIRRUS</td>
<td>CD2430 asynchronous controller</td>
</tr>
<tr>
<td>CIRRUS_PM</td>
<td>Slow-speed asynchronous/synchronous port module</td>
</tr>
<tr>
<td>CLEAR</td>
<td>Clear facility</td>
</tr>
<tr>
<td>CLNS</td>
<td>OSI Connectionless Network Service</td>
</tr>
<tr>
<td>CLOCKSW</td>
<td>Cisco 6400 network clocking</td>
</tr>
<tr>
<td>CLS</td>
<td>Cisco link services (CNS)</td>
</tr>
<tr>
<td>CLSDR</td>
<td>Cisco link services (CNS) driver</td>
</tr>
<tr>
<td>CM622_CM155</td>
<td>ATM OC12 and QOC3 line card driver</td>
</tr>
<tr>
<td>CMAPP</td>
<td>Call Manager application</td>
</tr>
<tr>
<td>CMCC</td>
<td>Cisco Mainframe Channel Connection interfaces</td>
</tr>
<tr>
<td>CM_DSPRM</td>
<td>Digital Signal Processor Resource Manager (DSPRM)</td>
</tr>
<tr>
<td>CM_MONITOR</td>
<td>UBR900 Cable Access Router Personal Monitor</td>
</tr>
<tr>
<td>CNS_AGENT_CFGCHG</td>
<td>Cisco Network Service (CNS) Configuration Change Agent</td>
</tr>
<tr>
<td>CNSES</td>
<td>Cisco Network Services Event Service client</td>
</tr>
<tr>
<td>COMP</td>
<td>Point-to-point compression</td>
</tr>
<tr>
<td>CONTROLLER</td>
<td>Controller</td>
</tr>
<tr>
<td>COT</td>
<td>Continuity test (COT)</td>
</tr>
<tr>
<td>CPAD</td>
<td>Compression service adapter (CSA)</td>
</tr>
</tbody>
</table>
Table 1  Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPM</td>
<td>Combo Port Module (CPM) device driver</td>
</tr>
<tr>
<td>CRYPTO</td>
<td>Encryption</td>
</tr>
<tr>
<td>CSM</td>
<td>Call switching module</td>
</tr>
<tr>
<td>CSM_VOICE</td>
<td>Call switching mode (CSM) voice subsystem</td>
</tr>
<tr>
<td>CT3</td>
<td>Channelized T3 (CT3) port adapter</td>
</tr>
<tr>
<td>CTRC</td>
<td>Cisco Transaction Connection</td>
</tr>
<tr>
<td>CWWAN_ATM</td>
<td>Constellation WAN ATM</td>
</tr>
<tr>
<td>CWWANLC</td>
<td>Constellation WAN line card</td>
</tr>
<tr>
<td>CWWANLC_ATM</td>
<td>Constellation WAN ATM Route Processor driver</td>
</tr>
<tr>
<td>CWWAN_RP</td>
<td>Constellation WAN ATM Route Processor driver</td>
</tr>
<tr>
<td>CWP</td>
<td>Route Processor for Constellation Supervisor router module</td>
</tr>
<tr>
<td>CWTLC</td>
<td>Constellation Supervisor router module line card</td>
</tr>
<tr>
<td>CWTLC_ATM</td>
<td>ATM line card for Constellation Supervisor router module</td>
</tr>
<tr>
<td>DBCONN</td>
<td>Database Connection</td>
</tr>
<tr>
<td>DBUS</td>
<td>Data bus</td>
</tr>
<tr>
<td>DCU</td>
<td>ATM access concentrator PCI port adapter</td>
</tr>
<tr>
<td>DEC21140</td>
<td>DEC21140 Fast Ethernet controller</td>
</tr>
<tr>
<td>DFC</td>
<td>Dial feature card</td>
</tr>
<tr>
<td>DFC_CARRIER</td>
<td>Dial feature card carrier</td>
</tr>
<tr>
<td>DHCPD</td>
<td>Dynamic Host Configuration Protocol (DHCP) server</td>
</tr>
<tr>
<td>DIALER</td>
<td>Dial-on-demand routing</td>
</tr>
<tr>
<td>DIALPEER_DB</td>
<td>Dial peer configuration</td>
</tr>
<tr>
<td>DIALSHELF</td>
<td>Dial shelf messages</td>
</tr>
<tr>
<td>DIRECTOR</td>
<td>Director server</td>
</tr>
<tr>
<td>DLC</td>
<td>Data-link control</td>
</tr>
<tr>
<td>DLSWC</td>
<td>Data-link switching (DLSw)</td>
</tr>
<tr>
<td>DLSWMasterSlave</td>
<td>Data-link switching (DLSw) core</td>
</tr>
<tr>
<td>DLSWP</td>
<td>Data-link switching (DLSw) peer module</td>
</tr>
<tr>
<td>DMA</td>
<td>Direct memory access</td>
</tr>
<tr>
<td>DMTDSL</td>
<td>Digital/discrete multitone digital subscriber line (DMTDSL)</td>
</tr>
<tr>
<td>DNET</td>
<td>DECnet</td>
</tr>
<tr>
<td>DNSSERVER</td>
<td>Domain Name System (DNS) server</td>
</tr>
<tr>
<td>DPM</td>
<td>AS5200 T1 BRIMUX</td>
</tr>
<tr>
<td>DRIP</td>
<td>Duplicate Ring Protocol</td>
</tr>
<tr>
<td>DRP</td>
<td>Director Response Protocol</td>
</tr>
<tr>
<td>DRVGRP</td>
<td>Interface driver</td>
</tr>
</tbody>
</table>
### Table 1  Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSC</td>
<td>Dial shelf controller (DSC)</td>
</tr>
<tr>
<td>DSCC4</td>
<td>DSCEC4 driver</td>
</tr>
<tr>
<td>DSC_CLOCK</td>
<td>Dial shelf controller (DSC) clock</td>
</tr>
<tr>
<td>DSC_ENV</td>
<td>Cisco AS5800 environment monitor</td>
</tr>
<tr>
<td>DSCCLOCK</td>
<td>Dial shelf controller (DSC) clock</td>
</tr>
<tr>
<td>DSCEXTCLOCK</td>
<td>Dial shelf controller (DSC) clock</td>
</tr>
<tr>
<td>DSC_REDUNDANCY</td>
<td>Cisco AS5800 dial shelf controller (DSC) redundancy</td>
</tr>
<tr>
<td>DSI</td>
<td>Cisco AS5800 dial shelf interconnect board</td>
</tr>
<tr>
<td>DSIP</td>
<td>Distributed system interconnect protocol</td>
</tr>
<tr>
<td>DSIPPF</td>
<td>Nitro Interconnect Protocol</td>
</tr>
<tr>
<td>DS__MODEM</td>
<td>FB modem card</td>
</tr>
<tr>
<td>DSPDD</td>
<td>Digital Signal Processor Device Driver (DSPDD)</td>
</tr>
<tr>
<td>DSPRM</td>
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<td>CT1 RBS time slot status</td>
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<td>Channelized E1 (Europe) and T1 (US) telephony standard</td>
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<td>Feature board core dump</td>
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<td>Cisco AS5800 feature board crash information subsystem</td>
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<td>Fiber Distributed Data Interface (FDDI)</td>
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<td>Fast Ethernet (FE) Combination Port Module (CPM) device driver</td>
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<td>Frame Relay Fragmentation</td>
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<td>Frame Relay Local Management Interface</td>
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<td>Gigabit Route Processor</td>
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<td>POS Route Processor</td>
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<td>Cisco Ethernet hub</td>
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<td>Route Processor (RP) interprocess communication (IPC)</td>
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<td>Interprocess communication ciscoBus (CBUS)</td>
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<td>IP flow</td>
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<td>Voice over IP (VoIP) driver</td>
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<td>Cisco 12000 Series Internet router line card IP multicast</td>
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<td>IPM_DSPRM</td>
<td>Digital Signal Processor (DSP) Resource Manager</td>
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Table 1  Facility Codes (continued)
### Table 1 Facility Codes (continued)

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<td>Novelle Internetwork Packet Exchange Protocol (IPX)</td>
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<td>Integrated Services Adapter (ISA)</td>
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<td>ISDN</td>
<td>Integrated Services Digital Network (ISDN)</td>
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<td>Interactive Voice Response (IVR)</td>
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<td>Voice over IP (VoIP) for Cisco AS5800</td>
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<td>KINEPAK</td>
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<td>LAN Emulation</td>
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<td>IBM LAN Network Manager</td>
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<td>X.25 Link Access Procedure, Balanced</td>
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<td>Fax offramp calls</td>
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<td>LAPP_ON_MSGS</td>
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<td>Line card core dump subsystems</td>
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<td>Gigabit Ethernet line card (LC) driver</td>
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<td>Line card crash information subsystem</td>
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### Table 1  Facility Codes (continued)

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<td>LPD</td>
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<td>LS Switching error message definition</td>
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<td>M32X Basic Rate Interface trunk card</td>
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<td>Maintenance bus (MBus) system</td>
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<td>Multicast distributed switching</td>
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<td>PCI MC68840 FDDI port adapter</td>
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### Table 1 Facility Codes (continued)

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<td>Network Routing Processor (NRP)</td>
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<td>Network services engine</td>
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<td>Network Switch Processor (NSP)</td>
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<td>X.25 packet assembler/disassembler</td>
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### Table 1  Facility Codes (continued)

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<td>POT1E1</td>
<td>Versatile Interface Processor (VIP) multichannel port adapter</td>
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<td>Plain old telephone service (POTS)</td>
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<td>Point-to-Point Protocol (PPP)</td>
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<td>Asynchronous MPC860 quad integrated communications controller</td>
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<td>Integrated Port Module Asynchronous Driver</td>
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<td>Ethernet MPC860 quad integrated communications controller</td>
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<td>Ethernet MPC860 quad integrated communications controller</td>
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<td>Fast Ethernet MPC860 quad integrated communications controller</td>
</tr>
<tr>
<td>PQUICC_SERIAL</td>
<td>Serial MPC860 quad integrated communications controller</td>
</tr>
<tr>
<td>PS</td>
<td>Power supply</td>
</tr>
<tr>
<td>PV</td>
<td>Private VLAN</td>
</tr>
<tr>
<td>PW_WATCHER</td>
<td>Portware Watcher</td>
</tr>
<tr>
<td>PXF</td>
<td>Parallel eXpress Forwarding</td>
</tr>
<tr>
<td>QA</td>
<td>Queue and accumulator</td>
</tr>
<tr>
<td>QEM</td>
<td>QEM driver</td>
</tr>
<tr>
<td>QLLC</td>
<td>Qualified Logical Link Control</td>
</tr>
<tr>
<td>QM</td>
<td>Quality of service</td>
</tr>
<tr>
<td>QUICC</td>
<td>MC68360 quad integrated communications controller</td>
</tr>
<tr>
<td>QUICC_ASYNC</td>
<td>Asynchronous MC68360 quad integrated communications controller</td>
</tr>
<tr>
<td>QUICC_ETHETERN</td>
<td>Ethernet MC68360 quad integrated communications controller</td>
</tr>
<tr>
<td>QUICC_SERIAL</td>
<td>Serial MC68360 quad integrated communications controller</td>
</tr>
<tr>
<td>RAC</td>
<td>Ring Access Controller</td>
</tr>
<tr>
<td>RADIO</td>
<td>Radio driver</td>
</tr>
<tr>
<td>RADIO_DRIVER</td>
<td>Radio driver</td>
</tr>
<tr>
<td>RADIUS</td>
<td>RADIUS</td>
</tr>
<tr>
<td>RADIX</td>
<td>Radix</td>
</tr>
<tr>
<td>RAIKO</td>
<td>RAIKO-based feature board</td>
</tr>
<tr>
<td>RCMD</td>
<td>Remote command</td>
</tr>
<tr>
<td>Regen</td>
<td>Cisco optical regenerator</td>
</tr>
</tbody>
</table>
### Table 1 Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regen_MAINBOARD_ASYNC_PQUICC</td>
<td>Asynchronous MPC860 quad integrated communications controller for the Cisco optical regenerator</td>
</tr>
<tr>
<td>REGISTRY</td>
<td>Registry</td>
</tr>
<tr>
<td>RESOURCE_MON</td>
<td>Resource monitor subsystem</td>
</tr>
<tr>
<td>RESYNCH</td>
<td>Route Processor Module (RPM) resynchronization process</td>
</tr>
<tr>
<td>RIP</td>
<td>IP Routing Information Protocol (RIP)</td>
</tr>
<tr>
<td>RLM</td>
<td>Redundant Link Manager (RLM)</td>
</tr>
<tr>
<td>RM</td>
<td>Resource Manager</td>
</tr>
<tr>
<td>ROUTEMAP_IPC</td>
<td>Route map interprocess communication (IPC)</td>
</tr>
<tr>
<td>RPA</td>
<td>Resource Pool Allocation (RPA)</td>
</tr>
<tr>
<td>RPC</td>
<td>Remote Procedure Call</td>
</tr>
<tr>
<td>RPM</td>
<td>Route Processor Module (RPM)</td>
</tr>
<tr>
<td>RP_MLP</td>
<td>Distributed Point-to-Point Protocol (PPP) Multilink</td>
</tr>
<tr>
<td>RPM_VIRTUAL_PORT</td>
<td>RPM virtual port</td>
</tr>
<tr>
<td>RPS</td>
<td>Redundant power system</td>
</tr>
<tr>
<td>RSP</td>
<td>Route Switch Processor</td>
</tr>
<tr>
<td>S6R</td>
<td>Remote source-route bridging</td>
</tr>
<tr>
<td>RS_TDM</td>
<td>Router shelf time-division multiplexing</td>
</tr>
<tr>
<td>RTT</td>
<td>Round trip time monitor</td>
</tr>
<tr>
<td>RUDP</td>
<td>Reliable User Datagram Protocol</td>
</tr>
<tr>
<td>S4T68360</td>
<td>Four-port synchronous serial adapter based on the 68360 processor</td>
</tr>
<tr>
<td>SARMGR</td>
<td>Segmentation and reassembly (SARMGR)</td>
</tr>
<tr>
<td>SCCP</td>
<td>Signaling connection control part</td>
</tr>
<tr>
<td>SCHED</td>
<td>Scheduler</td>
</tr>
<tr>
<td>SCP</td>
<td>Downstream physical unit (DSPU)</td>
</tr>
<tr>
<td>SDL</td>
<td>Synchronous Data Link Control</td>
</tr>
<tr>
<td>SDLLC</td>
<td>Synchronous Data Logical Link Control (SDLLC) Logical Link Control Type 2 (LLC2) translation</td>
</tr>
<tr>
<td>SEC</td>
<td>IP security</td>
</tr>
<tr>
<td>SERVICE_MODULE</td>
<td>Service module</td>
</tr>
<tr>
<td>SGBP</td>
<td>Stack Group Bidding Protocol</td>
</tr>
<tr>
<td>SGCP</td>
<td>Simple Gateway Control Protocol (SGCP)</td>
</tr>
<tr>
<td>SGCP_APP</td>
<td>Simple Gateway Control Protocol (SGCP) application-related</td>
</tr>
<tr>
<td>SHELF</td>
<td>Router shelf</td>
</tr>
<tr>
<td>SIGSM</td>
<td>Signaling Service Manager</td>
</tr>
<tr>
<td>SLB</td>
<td>Server load balancing</td>
</tr>
</tbody>
</table>
### Table 1  Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLB_DFP</td>
<td>Server Load Balancing Dynamic Feedback Protocol agent</td>
</tr>
<tr>
<td>SLIP</td>
<td>Serial Line Internet Protocol</td>
</tr>
<tr>
<td>SLOTDUMP</td>
<td>Slot dump</td>
</tr>
<tr>
<td>SM</td>
<td>State machine (SM)</td>
</tr>
<tr>
<td>SMF</td>
<td>Software MAC Filter</td>
</tr>
<tr>
<td>SMRP</td>
<td>Simple Multicast Routing Protocol</td>
</tr>
<tr>
<td>SNAPSHOT</td>
<td>Snapshot dial-on-demand routing</td>
</tr>
<tr>
<td>SNASW</td>
<td>Systems Network Architecture (SNA) Switching Services</td>
</tr>
<tr>
<td>SNMP</td>
<td>Simple Network Management Protocol (SNMP)</td>
</tr>
<tr>
<td>SNMP_MGR</td>
<td>Simple Network Management Protocol (SNMP) proxy</td>
</tr>
<tr>
<td>SOI</td>
<td>Simple Network Management Protocol (SNMP) over interprocess communication (IPC)</td>
</tr>
<tr>
<td>SONET</td>
<td>Synchronous Optical Network</td>
</tr>
<tr>
<td>SONETMIB</td>
<td>Synchronous Optical Network Management Information Base</td>
</tr>
<tr>
<td>SONICT</td>
<td>SONIC Ethernet interface-related</td>
</tr>
<tr>
<td>SPAN</td>
<td>Spanning Tree Protocol</td>
</tr>
<tr>
<td>SPANTREE</td>
<td>Spanning Tree</td>
</tr>
<tr>
<td>SPANTREE_FAST</td>
<td>Spanning Tree Fast Convergence</td>
</tr>
<tr>
<td>SPE</td>
<td>Service Processing Element (SPE)</td>
</tr>
<tr>
<td>SRCP_APP</td>
<td>Simple Resource Coordination Protocol (SRCP) application</td>
</tr>
<tr>
<td>SRP</td>
<td>Spatial Reuse Protocol (SRP)</td>
</tr>
<tr>
<td>SSE</td>
<td>Silicon switching engine</td>
</tr>
<tr>
<td>SSH</td>
<td>Secure Shell (SSH) Protocol</td>
</tr>
<tr>
<td>SSRP</td>
<td>SONET/SDH based SRP Double Wide PCI port adapter driver</td>
</tr>
<tr>
<td>STANDBY</td>
<td>Hot Standby Router Protocol (HSRP)</td>
</tr>
<tr>
<td>STUN</td>
<td>Serial tunneling</td>
</tr>
<tr>
<td>SUBSYS</td>
<td>Software subsystems</td>
</tr>
<tr>
<td>SW56</td>
<td>Switch 56K</td>
</tr>
<tr>
<td>SWITCH</td>
<td>Switch interface</td>
</tr>
<tr>
<td>SW_VLAN</td>
<td>Virtual LAN (VLAN) manager</td>
</tr>
<tr>
<td>SYS</td>
<td>Operating system</td>
</tr>
<tr>
<td>SYSCTRL</td>
<td>System controller subsystem</td>
</tr>
<tr>
<td>SYSLOG_SERVER</td>
<td>Syslog-server file system routines</td>
</tr>
<tr>
<td>SYSTMGT_RPC</td>
<td>System management</td>
</tr>
<tr>
<td>T1E1SUNI</td>
<td>PAM port driver</td>
</tr>
<tr>
<td>TAC</td>
<td>Terminal Access Controller Access Control System</td>
</tr>
</tbody>
</table>
### Table 1 Facility Codes (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAGCON</td>
<td>Tag distribution and control</td>
</tr>
<tr>
<td>TAGCOS</td>
<td>Tag switching class of service</td>
</tr>
<tr>
<td>TB RIDGE</td>
<td>Transparent bridging</td>
</tr>
<tr>
<td>TCATM</td>
<td>ATM TAG control</td>
</tr>
<tr>
<td>TCP</td>
<td>Transmission Control Protocol</td>
</tr>
<tr>
<td>TDM</td>
<td>Time-division multiplexing (TDM)</td>
</tr>
<tr>
<td>TDM_CLOCK_SYNCHRONIZATION</td>
<td>Time-division multiplexing (TDM) frame clock</td>
</tr>
<tr>
<td>TDP</td>
<td>Tag Distribution Protocol</td>
</tr>
<tr>
<td>TESTPA</td>
<td>TestPA port adapter</td>
</tr>
<tr>
<td>TFIB</td>
<td>Tag Forwarding Information Base</td>
</tr>
<tr>
<td>T11570</td>
<td>PCI/T11570-based ATM port adapter</td>
</tr>
<tr>
<td>TIB</td>
<td>Tag Information Base</td>
</tr>
<tr>
<td>TIGER</td>
<td>Error-correcting code (ECC) and parity-related</td>
</tr>
<tr>
<td>TLV</td>
<td>EEPROM</td>
</tr>
<tr>
<td>TMQ</td>
<td>Inbound terminal port queuing</td>
</tr>
<tr>
<td>TN</td>
<td>Telnet</td>
</tr>
<tr>
<td>TN3270</td>
<td>TN3270 protocol</td>
</tr>
<tr>
<td>TR</td>
<td>Token Ring</td>
</tr>
<tr>
<td>TRUNK</td>
<td>E1/T1 trunk card</td>
</tr>
<tr>
<td>TRUNK_CLOCK</td>
<td>AS5400 clocking</td>
</tr>
<tr>
<td>TRUNK_DFC</td>
<td>Trunk dial feature card</td>
</tr>
<tr>
<td>TSP</td>
<td>Tag-switched path (TSP)</td>
</tr>
<tr>
<td>TTY</td>
<td>Tty-related for all platforms</td>
</tr>
<tr>
<td>TTYDRIVER</td>
<td>Router shelf asynchronous driver</td>
</tr>
<tr>
<td>TUN</td>
<td>Tunnel</td>
</tr>
<tr>
<td>TXCONN</td>
<td>Cisco Transaction Connection (CTRC)</td>
</tr>
<tr>
<td>UBR7200</td>
<td>Cable modem termination system</td>
</tr>
<tr>
<td>UCODE</td>
<td>Microcode</td>
</tr>
<tr>
<td>UDLD</td>
<td>UniDirectional Link Detection (UDLD) protocol</td>
</tr>
<tr>
<td>UNIX</td>
<td>UNIX</td>
</tr>
<tr>
<td>UTIL</td>
<td>Utility</td>
</tr>
<tr>
<td>VFC</td>
<td>Voice over IP (VoIP)</td>
</tr>
<tr>
<td>VINES</td>
<td>Banyan VINES</td>
</tr>
<tr>
<td>VIP</td>
<td>Versatile Interface Processor</td>
</tr>
<tr>
<td>VIPMLP</td>
<td>Multilink PPP</td>
</tr>
<tr>
<td>VOICE_FSM</td>
<td>MC3810 voice FSM subsystem</td>
</tr>
</tbody>
</table>
System Error Messages Overview

How to Read System Error Messages

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). For more information, see the system configuration chapter and descriptions of the `logging` command in the appropriate Cisco IOS configuration guide and command reference publications.

<table>
<thead>
<tr>
<th>Table 1 Facility Codes (continued)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOICE_RC</td>
<td>MC3810 voice resource subsystem</td>
</tr>
<tr>
<td>VOIPAAA</td>
<td>VoIP AAA</td>
</tr>
<tr>
<td>VPA</td>
<td>Voice port adapter</td>
</tr>
<tr>
<td>VPD</td>
<td>ATM CES (Voice Processor Deck) driver</td>
</tr>
<tr>
<td>VPDN</td>
<td>Virtual Private Dialup Networking</td>
</tr>
<tr>
<td>VSI_M</td>
<td>Virtual Switch Interface (VSI) master</td>
</tr>
<tr>
<td>VTSP</td>
<td>Voice Telephony security parameter index (SPI)</td>
</tr>
<tr>
<td>WCCP</td>
<td>Web Cache Communication Protocol (WCCP)</td>
</tr>
<tr>
<td>X25</td>
<td>X.25</td>
</tr>
<tr>
<td>XCTSP_VOICE</td>
<td>External Call Control Telephony Service Provider</td>
</tr>
<tr>
<td>XCPA</td>
<td>Mainframe Channel Port Adapter</td>
</tr>
<tr>
<td>XTAGATM</td>
<td>Extended Tag ATM (XTagATM)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2 Error Message Severity Levels</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – emergency</td>
<td>System unusable</td>
</tr>
<tr>
<td>1 – alert</td>
<td>Immediate action needed</td>
</tr>
<tr>
<td>2 – critical</td>
<td>Critical condition</td>
</tr>
<tr>
<td>3 – error</td>
<td>Error condition</td>
</tr>
<tr>
<td>4 – warning</td>
<td>Warning condition</td>
</tr>
<tr>
<td>5 – notification</td>
<td>Normal but significant condition</td>
</tr>
<tr>
<td>6 – informational</td>
<td>Informational message only</td>
</tr>
<tr>
<td>7 – debugging</td>
<td>Appears during debugging only</td>
</tr>
</tbody>
</table>

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). For more information, see the system configuration chapter and descriptions of the `logging` command in the appropriate Cisco IOS configuration guide and command reference publications.

<table>
<thead>
<tr>
<th>Table 3 Representation of Variable Fields in Error Messages</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Representation</th>
<th>Type of Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>[atalk_address]</td>
<td>AppleTalk address</td>
</tr>
<tr>
<td>[atalk_net]</td>
<td>AppleTalk network, either 600 or 600-601</td>
</tr>
<tr>
<td>[char]</td>
<td>Single character</td>
</tr>
<tr>
<td>[chars]</td>
<td>Character string</td>
</tr>
<tr>
<td>[dec]</td>
<td>Decimal number</td>
</tr>
</tbody>
</table>
Table 3  
**Representation of Variable Fields in Error Messages (continued)**

<table>
<thead>
<tr>
<th>Representation</th>
<th>Type of Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>[enet]</td>
<td>Ethernet address (for example, 0000.FEED.00C0)</td>
</tr>
<tr>
<td>[hex]</td>
<td>Hexadecimal number</td>
</tr>
<tr>
<td>[inet]</td>
<td>Internet address (for example, 10.0.2.16)</td>
</tr>
<tr>
<td>[int]</td>
<td>Integer</td>
</tr>
<tr>
<td>[node]</td>
<td>Address or node name</td>
</tr>
<tr>
<td>[sci_notation]</td>
<td>Scientific notation</td>
</tr>
<tr>
<td>[t-line]</td>
<td>Terminal line number in octal (or decimal if the decimal-TTY service is enabled)</td>
</tr>
<tr>
<td>[v-name]</td>
<td>VINES name; or number (hex or decimal)</td>
</tr>
</tbody>
</table>

**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
```
## AAAA Messages

The following are TACACS+ authentication, authorization, and accounting (AAA) security accounting error messages.

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Explanation</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>%AAAA-6-ACCTSTART: [chars]</td>
<td>This message is an AAA accounting start message.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>%AAAA-6-ACCTSTOP: [chars]</td>
<td>This message is an AAA accounting stop message.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>%AAAA-6-ACCTWATCH: [chars]</td>
<td>This message is an AAA accounting watchdog/update message.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>%AAAA-6-ADMINMSG: [chars] [chars]: [chars]</td>
<td>This administrative message was passed to the NAS from the AAA server.</td>
<td>No action is required, but the message may contain useful information regarding an event on the server.</td>
</tr>
</tbody>
</table>
Error Message
%AAAA-3-BADARG: % AAA: bad argument ([hex])

Explanation NVGEN was attempted on a nonexistent AAA command.

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

Error Message
%AAAA-3-BADCOMM: Trying config command but should not be.

Explanation An internal error has occurred.

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

Error Message
%AAAA-3-BADLIST: % AAA: bad [chars] list [chars]

Explanation One of the AAA methods does not seem to have a list associated with it.

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

Error Message
%AAAA-4-BADMETHNAME: Bad [chars] method-list name "[chars]" (this is only a warning)

Explanation A method list name should not be the same as a method name.

Recommended Action Choose a different method list name that is not also a method name.

Error Message
%AAAA-3-BADREG: Illegal registry call.

Explanation An internal error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%AAAA-4-BADSGNAME: Bad server-group name [chars] (type [chars]).

Explanation Either the given server-group name does not exist or the given type does not match the defined server group.

Recommended Action Verify that the group exists and that the type is accurate.

Error Message
%AAAA-3-BADSTATE: % AAA: Bad state for [chars] list name ([dec])

Explanation A AAA method list is neither named nor supplied by default.

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

Error Message
%AAAA-3-BADSTR: Bad accounting data: [chars]

Explanation During AAA accounting operations, the internal database of accounting information for a user was found to be corrupt. An internal software error has occurred, and the accounting information for this user session has been lost.

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

Error Message
%AAAA-3-DLRFORKFAIL: Failed to fork process for [chars].

Explanation A possible memory loss has occurred.

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

Error Message
%AAAA-4-DNISGPUNDEF: Warning: DNIS group [chars] is not defined.

Explanation The DNIS group was used without being defined.

Recommended Action Define the DNIS group before using it.
Error Message

%AAAA-3-DROPACCTLOWMEM: accounting record dropped due to low memory: [chars]-[chars] [chars] [chars]

Explanation  An accounting record has been dropped because of low memory.

Recommended Action  Disable periodic accounting if it is activated. Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%AAAA-3-DROPACCTSNDFAIL: accounting record dropped, send to server failed: [chars]-[chars] [chars] [chars]

Explanation  An attempt to send an accounting record to a server has failed.

Recommended Action  Check that the server (TACACS+ or RADIUS) is operational and that the NAS is configured properly. Ensure that the NAS can communicate with the server.

Error Message

%AAAA-3-ILLEGALNAME: Illegal [chars] [chars] name "[chars]" rejected

Explanation  A method list name should not be the same as a method name.

Recommended Action  Choose a different method list name that is not also a method name.

Error Message

%AAAA-3-ILLSGNAME: Illegal server-group name [chars] (type [chars]).

Explanation  The given server-group name is a name that could conflict with internally chosen lists.

Recommended Action  Choose a different server-group name.

Error Message

%AAAA-3-INTERNAL_ERROR: [chars]

Explanation  An internal software error has occurred.

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

%AAAA-3-INVALIDLIST: % AAA: invalid [chars] list [dec].

**Explanation**  One of the AAA methods lists has inconsistent settings.

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

---

**Error Message**

%AAAA-3-INVSTATE: [chars] AUTHOR/[chars]: Internal state is invalid: astruct [hex] ustruct [hex]

**Explanation**  One of the two mentioned data structures is not set but is needed. An internal software error has occurred.

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

---

**Error Message**

%AAAA-3-LISTCREATE: The list [dec] for [chars] is NULL. This should never be.

**Explanation**  One of the method lists to be created at startup was not created. This may cause a reload.

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

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**Error Message**

%AAAA-3-LOSTTIMER: Lost periodic accounting timer for user [chars]. Restarting timer...

**Explanation**  The periodic timer associated with the specified user has been lost.

**Recommended Action**  Reallocate and restart a timer.

---

**Error Message**

%AAAA-3-MKTIMERFAIL: Failed to create periodic accounting timer for user [chars]. This user may not generate periodic accounting records.

**Explanation**  The system failed to allocate memory for a periodic accounting timer.

**Recommended Action**  Free up some memory and have the user reauthenticate.
Error Message
%AAAA-3-NOADMINPROC: [chars]

Explanation  An administrative process has been enabled but could not run.

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

Error Message
%AAAA-3-NOFREELISTS: % AAA: No free [chars] lists for "[chars]"

Explanation  You have reached the maximum number of possible authentication lists for this method.

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

Error Message
%AAAA-3-NOLIST: [chars]: no method list-name.

Explanation  An internal software error has occurred.

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

Error Message
%AAAA-3-NOREG: [chars] method [dec] has no registry!

Explanation  An internal software error has occurred.

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

Error Message
%AAAA-3-NOSERV: No name for servergroup in method [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**
%AAAA-4-NOSERVER: Warning: Server [IP_address] is not defined.

**Explanation**  The specified server is not on the master list and should be defined, or unexpected results may occur.

**Recommended Action**  Define the server on the appropriate master list as soon as possible.

**Error Message**
%AAAA-3-NOSG: No server-group passed through parser.

**Explanation**  An internal software error has occurred.

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

**Error Message**
%AAAA-3-NULUSR: accounting for null user

**Explanation**  An internal software error has occurred. During shutdown of a line or interface, the system tried to send accounting information via AAA, but could not find the user to which the accounting information belonged. The error was probably caused by the system trying to do accounting twice for the same event. This error message can occur without any loss of accounting information.

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

**Error Message**
%AAAA-3-OVERWRITE: Overwrote internal buffer space [chars]

**Explanation**  An internal software error has occurred.

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

**Error Message**
%AAAA-3-PERIODICFORKFAIL: Failed to start periodic accounting process. Periodic accounting records may not be sent.

**Explanation**  An attempt to create the periodic accounting process has failed.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message

%AAAA-3-PERNOTIMER: AAA/ACCT/TIMER: Periodic update but no timer.

Explanation  An attempt was made to free a timer, and the method is PERIODIC, but no timer seems to exist.

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

Error Message

%AAAA-3-RELOGIN: sanity check in re-login [chars] to [chars]

Explanation  A software or hardware error has occurred.

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

Error Message

%AAAA-6-SERVERMSG: [chars] [chars]: [chars]

Explanation  This error message was passed to the NAS from the AAA server.

Recommended Action  No action is required, but the message may contain useful information regarding an event on the server.

Error Message

%AAAA-4-SERVUNDEF: The server-group "[chars]" is not defined. Please define it.

Explanation  A given server group was listed in a method list without first being defined.

Recommended Action  Define the server group before using it.

Error Message

%AAAA-3-STRCREATE: str_create overwrote its internal buffer.

Explanation  An internal buffer used to assemble a string was exceeded, possibly corrupting other memory.

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

%AAAA-3-SUBTYPE: Bad Subtype [dec] for "[chars]" ([dec])

Explanation  An internal software error has occurred.

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

Error Message

%AAAA-3-TIMERNOPER: AAA/ACCT/TIMER: No periodic update but timer set.

Explanation  An attempt to free a timer was unsuccessful. The update method was not PERIODIC, and therefore no timer will exist.

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

ACLMERGE Messages

The following are access control list (ACL) merge error messages.

Error Message

%ACLMERGE-3-CUDDERROR: A CUDD Library error was detected in [chars]

Explanation  An error was detected by the CUDD library, and the ACL merge has failed. The failed ACL merge may cause more traffic to be switched by the software, resulting in lower performance for the interface on which the ACL merge had failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information, along with the ACL configuration of this device.

Error Message

%ACLMERGE-3-CUDDWARN: A CUDD Library warning message for interest in this event in [chars]

Explanation  A CUDD library warning message for the specified event has been received.

Recommended Action  This is a debug message only. No action is required.
ADJ Messages

The following are adjacency subsystem error messages.

**Error Message**

%ADJ-3-ADJDELMG: Invalid delete message length [dec]

**Explanation**  An internal software error has occurred.

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

**Error Message**

%ADJ-3-ADJFIBIDB: Adjacency update with invalid fibidb([dec])

**Explanation**  An internal software error has occurred.

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

**Error Message**

%ADJ-3-NULLFIBHWIDB: Add [chars] with null cef hwidb([chars])

**Explanation**  An internal software error has occurred.

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

**Error Message**

%ADJ-3-NULLFIBIDB: Add [chars] with null cef idb

**Explanation**  An internal software error has occurred.

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

The following are ATM Interface Processor (AIP) error messages.

**Error Message**

%AIP-3-AIPFAILSETUPVC: [chars] Failed to setup vc [dec] (Cause: [chars])

**Explanation**  The AIP driver has failed to set up a VC.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%AIP-3-AIPFAILSETUPVCAVG: Interface [chars], Failed to setup vc [dec] (Cause: [chars]) Expected range [[dec] .. [dec]]Kbps for AIP Average Rate Metering. Average Rate=Peak Rate= [dec] Kbps turns Average Rate Metering OFF

**Explanation**  A software or hardware error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

ALARM Messages

The following are Telco chassis alarm related error messages.

**Error Message**

%ALARM-1-CRITICAL_ALARM: CRITICAL alarm condition detected

**Explanation**  A critical alarm event that needs immediate attention has occurred. The system will shut down within two minutes.

**Recommended Action**  Check the source of the critical alarm to take any corresponding action. Do not power on unless the situation is corrected. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%ALARM-2-MAJOR_ALARM: Major alarm condition detected

Explanation  A major alarm event that will affect system service has occurred.

Recommended Action  Check the source of the major alarm in order to take corresponding actions. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%ALARM-3-MINOR_ALARM: Minor alarm condition detected

Explanation  A minor alarm event that does not affect system service has occurred.

Recommended Action  Check the source of the minor alarm to avoid a worsening of the situation. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%ALARM-3-NOCLASS: Unknown Alarm Severity Class

Explanation  The alarm status tables contain an alarm entry of unknown alarm severity.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ALARM-3-NOMESSAGES: No alarm messages left

Explanation  No more alarm messages are available in the message cache.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%ALARM-3-NOSOURCE: Attempt to set alarm status for undefined source

Explanation The alarm subsystem has no record of this alarm source. Either the source has not been registered or it has been deleted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ALARM-3-NOTYPE: Attempt to change alarm status for undefined type

Explanation The alarm subsystem has no record of this type of alarm. Either the alarm type has not been registered or it has been deleted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ALARM-3-TOOMANYOURCES: Max number of alarm sources exceeded

Explanation Too many alarm sources have been added by the system.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
The following are ATM line card error messages.

**Error Message**

%ALC-3-CMDERR: ([dec]/[dec]) Interface ([chars]): [chars] IPC command fails
(cause: [hex])

**Explanation** The ATM RP driver has experienced an IPC command error.

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

**Error Message**

%ALC-3-EVENT: ([dec]/[dec]) Interface ([chars]): unknown IPC event ([int]) from linecard

**Explanation** The ATM RP driver has received a unknown event from the line card.

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

**Error Message**

%ALC-4-HIRATE: ([dec]/[dec]) Interface ([chars]): SAR limits VBR VC PCR to [dec] kbps, opening UBR VC instead

**Explanation** The SAR sublayer limits VBR VC PCR to one-half of the link bandwidth.

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

**Error Message**

%ALC-3-INIT: ATM driver ([int]/[int]) initialization [chars].

**Explanation** The ATM RP driver has experienced a software initialization error.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ALC-4-NULLCEFIDB: ([dec]/[dec]) Interface ([chars])

Explanation  CEF IDB is missing from this interface.

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

Error Message
%ALC-4-UNSUP: ([dec]/[dec]) Interface ([chars]): unsupported feature: [chars]

Explanation  This feature is not supported by Internet router ATM RP.

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

Error Message
%ALC-3-VCADJ: ([dec]/[dec]) Per-VC adjacency error: VC:[int] [chars]

Explanation  The ATM RP driver has experienced a per-VC adjacency software error.

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

Error Message
%ALC-3-VCENCSTYPE: ([dec]/[dec]) VC:[int] unknown VC encapsulation type ([int])

Explanation  The ATM RP driver has experienced an unknown VC encapsulation software error.

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

The ALIGN facility controls a feature in RISC-processor-based Cisco products that identifies software in need of memory use optimization. The following are memory optimization in RISC processor error messages.

**Error Message**

%ALIGN-3-CORRECT: Alignment correction made at [hex] [chars]ing [hex]

**Explanation** An alignment error has been detected and corrected. Alignment errors are due to misaligned reads and writes caused by a software failure. Correcting alignment errors consumes processor resources and may result in a performance penalty. If there are recurring alignment errors, CPU utilization may be seriously affected.

**Recommended Action** To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If this message recurs, enter the `show log`, `show alignment` and `show tech-support` commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ALIGN-1-FATAL: [chars]

**Explanation** An alignment error has occurred. Alignment errors are caused by misaligned reads and writes. For example, a two-byte read of a memory address that is not a multiple of two bytes is an alignment error. Alignment errors are caused by internal software failures. The system will be reloaded, often with a bus error.

**Recommended Action** This message is caused by a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If this message recurs, copy the error message text exactly as it appears on the console or in the system log, enter the `show log`, `show alignment` and `show tech-support` commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ALIGN-3-FULL: Alignment log is full - no new entries will be recorded

**Explanation** The router identified more software components in need of memory optimization than it can record.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ALIGN-3-READEXCEPTION: Warning : read access failed at [chars], still continuing

Explanation  In Is1010, read access failures prevent the router from reloading. The failures can be caused by either a bad register value in release 3.3 of the ASP or a problem in the hardware.

Recommended Action  If the ASP version is 3.3 or later, contact your Cisco technical support representative.

Error Message
%ALIGN-3-SPURIOUS: Spurious memory access made at [hex] reading [hex]

Explanation  A spurious access occurs when a process attempts to read from the lowest region of memory. This portion of memory is reserved and should never be accessed. An attempted read operation to this region of memory is usually caused by the return of a nonexistent value to a function in the software.

Recommended Action  The system has detected the illegal access and was able to correct it without a system failure. This condition indicates a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If this message recurs, enter the show log, show alignment and show tech-support commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%ALIGN-3-TRACE: -Traceback= [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

Explanation  This tracing message provides information about a previous ALIGN error.

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

Error Message
%ALIGN-3-TRACEX: [chars]

Explanation  This tracing message provides information about a memory optimization error that involves the RISC processor.

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

The following are Airline Protocol Support (ALPS) error messages.

**Error Message**
%ALPS-3-ALPSFAIL: ALPS: Assertion failed: [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**
%ALPS-5-ASCU_DISABLED_ASCU_STUCK: ASCU [hex] on interface [chars] has been disabled since 4 consecutive messages were received from same SID.

**Explanation** An ALPS ASCU has been automatically disabled.

**Recommended Action** No action is required.

**Error Message**
%ALPS-5-ASCU_DOWN: ASCU [hex] on interface [chars] is down.

**Explanation** An ALPS ASCU has transitioned from up to down.

**Recommended Action** No action is required.

**Error Message**
%ALPS-3-ASCU_FSM_ERR: ASCU [hex] on interface [chars] has an internal FSM error.

**Explanation** An internal software error has occurred.

**Recommended Action** Turn debug flags on, capture traces, and contact Cisco technical support.

**Error Message**
%ALPS-3-ASCU_IF_STUCK: Polling for ASCU [hex] on interface [chars] is stalled.

**Explanation** The polling mechanism for an ALPS interface has become stuck.

**Recommended Action** No action is required.
Error Message
%ALPS-5-ASCU_UP: ASCU [hex] on interface [chars] is up.

Explanation  An ALPS ASCU has transitioned from down to up.

Recommended Action  No action is required.

Error Message
%ALPS-6-CIRCUIT_ASCU_REJECT: Circuit [chars] received a Circuit Open Confirm with a list of rejected ascus

Explanation  An ALPS circuit sent a “circuit open request” message and received a “circuit open confirm” message with a list of rejected ASCUs.

Recommended Action  No action is required.

Error Message
%ALPS-7-CIRCUIT_BUSY_END: Circuit [chars] has exited a congested state.

Explanation  An ALPS circuit is no longer experiencing congestion.

Recommended Action  No action is required.

Error Message
%ALPS-6-CIRCUIT_BUSY_START: Circuit [chars] has entered a congested state.

Explanation  An ALPS circuit is experiencing congestion.

Recommended Action  No action is required.

Error Message
%ALPS-5-CIRCUIT_CLOSED: Circuit [chars] changed state to closed, rsn = [chars].

Explanation  An ALPS circuit has transitioned from open to closed.

Recommended Action  No action is required.

Error Message
%ALPS-7-CIRCUIT_DROPS_CKT_DISABLED: Threshold exceeded for circuit disabled drops for circuit [chars]

Explanation  The number of ALPS circuit drops caused by a disabled circuit exceeds the ALPS circuit threshold value.

Recommended Action  No action is required.
Error Message
%ALPS-7-CIRCUIT_DROPS_INVALID_ASCU: Threshold exceeded for invalid ASCU drops for circuit [chars]

Explanation The number of ALPS circuit drops caused by an invalid ASCU identifier exceeds the ALPS circuit threshold value.

Recommended Action No action is required.

Error Message
%ALPS-7-CIRCUIT_DROPS_LIFETIME_EXPIRED: Threshold exceeded for lifetime timer expiration drops for circuit [chars]

Explanation The number of ALPS circuit drops caused by a lifetime timer expiration exceeds the ALPS circuit threshold value.

Recommended Action No action is required.

Error Message
%ALPS-7-CIRCUIT_DROPS_QUEUE_OVERFLOW: Threshold exceeded for queue overflow drops for circuit [chars]

Explanation The number of ALPS circuit drops caused by queue overflow exceeds the ALPS circuit threshold value.

Recommended Action No action is required.

Error Message
%ALPS-7-CIRCUIT_DROPS_VC_RESET: Threshold exceeded for X.25 VC Reset drops for circuit [chars]

Explanation The number of ALPS circuit drops caused by an X.25 VC reset exceeds the ALPS circuit threshold value.

Recommended Action No action is required.

Error Message
%ALPS-5-CIRCUIT_OPEN: Circuit [chars] changed state to open.

Explanation An ALPS circuit has transitioned from closed to open.

Recommended Action No action is required.
Error Message
%ALPS-6-CIRCUIT_OPEN_FAILED: Circuit [chars] received a Circuit Open Failed message, rsn = [chars].

Explanation An ALPS circuit sent a “circuit open request” message and received a “circuit open failed” message as a reply.

Recommended Action No action is required.

Error Message
%ALPS-6-CIRCUIT_UPDATE_FAILED: Circuit [chars] received a Circuit Open Failed message, rsn = [chars].

Explanation An ALPS circuit sent a “circuit update” message and received a “circuit open failed” message as a reply.

Recommended Action No action is required.

Error Message
%ALPS-6-CIRCUIT_X25_VC_STUCK: Host unresponsive on X.25 VC for circuit [chars]

Explanation The X.25 or EMTOX host is not advancing the transmit window for extended periods of time. This delay may indicate a temporary problem with the host application. An X.25 reset is sent to reset the transmit and receive windows to allow communication to proceed.

Recommended Action No action is required.

Error Message
%ALPS-6-PEER_BUSY_END: Peer ([IP_address], [chars]) has exited a congested state.

Explanation An ALPS peer connection is no longer experiencing congestion.

Recommended Action No action is required.

Error Message
%ALPS-6-PEER_BUSY_START: Peer ([IP_address], [chars]) has entered a congested state.

Explanation An ALPS peer connection is experiencing congestion.

Recommended Action No action is required.

Error Message
%ALPS-5-PEER_CLOSED: Peer ([IP_address], [chars]) changed state to closed.

Explanation An ALPS peer connection is now closed.

Recommended Action No action is required.
Error Message

%ALPS-5-PEER_CLOSED_DYNAMIC_INACTIVITY: Peer ([IP_address], [chars]) closed due to inactivity.

**Explanation**  An ALPS peer connection is now closed because of inactivity.

**Recommended Action**  No action is required.

Error Message

%ALPS-5-PEER_CONN_ID_CHANGE: Peer ([IP_address], [chars]) ID modified to ([IP_address], [chars]).

**Explanation**  An ALPS peer connection identifier has changed.

**Recommended Action**  No action is required.

Error Message

%ALPS-7-PEER_DROPS_MAX_SIZE_EXCEEDED: Threshold exceeded for maximum size exceeded drops for peer ([IP_address], [chars]).

**Explanation**  The number of ALPS peer drops caused by surpassing maximum size exceeds the ALPS peer threshold value.

**Recommended Action**  No action is required.

Error Message

%ALPS-7-PEER_DROPS_PEER_UNREACHABLE: Threshold exceeded for peer unreachable peer drops for peer ([IP_address], [chars]).

**Explanation**  The number of ALPS peer drops caused by a peer unreachable condition exceeds the ALPS peer threshold value.

**Recommended Action**  No action is required.

Error Message

%ALPS-7-PEER_DROPS_QUEUE_OVERFLOW: Threshold exceeded for TCP Queue overflow peer drops for peer ([IP_address], [chars]).

**Explanation**  The number of ALPS peer drops caused by a queue overflow exceeds the ALPS peer threshold value.

**Recommended Action**  No action is required.
Error Message
%ALPS-7-PEER_DROPS_VERSION_MISMATCH: Threshold exceeded for version mismatch peer drops for peer ([IP_address], [chars]).

Explanation  The number of ALPS peer drops caused by a version mismatch exceeds the ALPS peer threshold value.

Recommended Action  No action is required.

Error Message
%ALPS-5-PEER_OPEN: Peer ([IP_address], [chars]) changed state to open.

Explanation  An ALPS peer connection is now open.

Recommended Action  No action is required.

Error Message
%ALPS-6-PEER_OPEN_FAIL: Peer ([IP_address], [chars]) open failed, rsn = [chars]

Explanation  An attempt to open an ALPS peer connection has failed.

Recommended Action  No action is required.

AMD79C971_FE Messages
The following are Am79C971 Fast Ethernet device driver error messages.

Error Message
%AMD79C971_FE-5-FAILED_SUSPEND: Failed to suspend the amd79c971 chip

Explanation  An attempt to suspend the AMD Am79C971 chip has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
AMDP2_FE Messages

The following are AMDP2 Ethernet and Fast Ethernet error messages.

Error Message
%AMDP2_FE-4-BABBLE: [chars], transmit problem, CSR0=[hex]

Explanation The transmitter has been on the channel longer than the time it has taken to transmit the largest frame. This error also indicates that 1519 or more bytes are transmitted.

Recommended Action The system should recover. No action is required.

Error Message
%AMDP2_FE-5-COLL: [chars], Excessive collisions, TDR=[dec], TRC=[dec].

Explanation Ethernet or Fast Ethernet is seeing multiple collisions. This problem may occur under heavy loads. The system should recover.

Recommended Action No action is required.

Error Message
%AMDP2_FE-5-CONSIGNOT: The Internal Ethernet Interface is not configurable

Explanation The internal Ethernet is for system use only.

Recommended Action No action is required.

Error Message
%AMDP2_FE-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation The software could not identify the interface card.

Recommended Action Power down, reseat the interface card, and reboot. If the message recurs, contact your Cisco technical support representative for assistance.

Error Message
%AMDP2_FE-5-EXCESSCOLL: [chars] TDR=[dec], TRC=[dec]

Explanation Ethernet or Fast Ethernet is seeing multiple collisions. This condition may occur under heavy loads. If an interface fails to allocate a slot in which it can transmit its frame without another collision for 16 times, it will not retry the operation. The frame is not transmitted and is marked as an excessive collision.

Recommended Action The system should recover. No action is required.
**Error Message**

%AMDP2_FE-6-EXCESSCOLL: [chars] TDR=[dec], TRC=[dec]

**Explanation** Ethernet or Fast Ethernet is seeing multiple collisions. This condition may occur under heavy loads. If an interface fails to allocate a slot in which it can transmit its frame without another collision for 16 times, it will not retry the operation. The frame is not transmitted and is marked as an excessive collision.

**Recommended Action** The system should recover. No action is required.

**Error Message**

%AMDP2_FE-1-INITFAIL: [chars], Init failed, CSR[dec]=[hex]

**Explanation** The software has failed to initialize or restart an Ethernet or Fast Ethernet interface.

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

**Error Message**

%AMDP2_FE-5-LATECOLL: [chars], transmit error

**Explanation** Late collisions have occurred on the Ethernet or Fast Ethernet interface. When a collision is detected by a station after it has sent the 512th bit of its frame, it is counted as a late collision.

**Recommended Action** If the interface is a Fast Ethernet interface, verify that both peers are in the same duplex mode. For regular Ethernet, the system should recover. No action is required.

**Error Message**

%AMDP2_FE-5-LOSTCARR: [chars], lost carrier. cable/transceiver problem?

**Explanation** The cable or transceiver is not connected.

**Recommended Action** Connect the cable or transceiver.

**Error Message**

%AMDP2_FE-1-MEMERR: [chars], Memory error, CSR[dec]=[hex]

**Explanation** The interface could not access system resources for a long time. This condition may occur under very heavy loads.

**Recommended Action** The system should recover. No action is required.
Error Message
%AMDP2_FE-2-MISS: [chars], [chars] receive problem, CSR0=[hex]

Explanation The interface lost an incoming receive frame because a receive descriptor was not available.

Recommended Action The system should recover. No action is required.

Error Message
%AMDP2_FE-2-NOISL: Interface [chars] does not support ISL

Explanation The interface cannot be configured as an ISL trunk.

Recommended Action Check the configuration.

Error Message
%AMDP2_FE-1-NOMII: [chars] MII transceiver not connected

Explanation The MII transceiver was disconnected while the MII port was selected.

Recommended Action Connect the transceiver, and enter the shutdown and no shutdown commands for the interface in the configuration menu.

Error Message
%AMDP2_FE-3-NOTAMDP2: Slot [dec] device ID seen as [hex], expected [hex]

Explanation The software could not recognize the interface chips.

Recommended Action Power down, reseat the interface card, and reboot the system. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%AMDP2_FE-1-NOTSUPPORTED: 2FE PA not supported on NPE100, shutting down bay

Explanation A 2FE PA is not supported on a Cisco 7200 series router with NPE100.

Recommended Action Upgrade to NPE150 or higher.

Error Message
%AMDP2_FE-3-OWNERR: [chars], packet buffer, pak=[hex]

Explanation The software has detected an error in descriptor ownership.

Recommended Action Upgrade to a more recent version of the software. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%AMDP2_FE-3-SPURIDON: [chars], Spurious chip interrupt, CSR[dec]=[hex]

Explanation An illegal condition has occurred, indicating that initialization has been done.

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

Error Message
%AMDP2_FE-4-SPURIOUS: [chars], Spurious interrupt error, CSR0=[hex]

Explanation An illegal condition has been encountered during initialization. The system should recover.

Recommended Action No action is required.

Error Message
%AMDP2_FE-3-TOOMANYPART: Bad packet with [dec] particles, pak=[hex]

Explanation The software has detected an invalid packet.

Recommended Action Try a more recent version of the software. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%AMDP2_FE-3-UNDERFLO: [chars], transmit error

Explanation While transmitting a frame, the local buffer of the controller chip received insufficient data because data could not be transferred to the chip fast enough to keep pace with its output rate. Normally, such a problem is temporary, depending on transient peak loads within the system. The system should recover.

Recommended Action No action is required.
AP Messages

The following are Authentication Proxy error messages.

Error Message

%AP-6-AUTH_PROXY_AUDIT_START: initiator ([IP_address]) start

Explanation  This message documents the transaction log of AP network activities. The message is issued at the start of each AP cache, recording the source addresses.

Recommended Action  This message is for informational purposes only and can be used to collect the basic accounting data for the proxied caches.

Error Message

%AP-6-AUTH_PROXY_AUDIT_STOP: initiator ([IP_address]) send [int] packets [int] bytes; duration time [chars]

Explanation  This message documents the transaction log of AP network activities. The message is issued at the stop of each AP cache, recording the source addresses, the number of bytes transmitted by the client, and the cache duration time.

Recommended Action  This message is for informational purposes only and can be used to collect the basic accounting data for the proxied caches.

ARAP Messages

The following are Apple Remote Access Protocol (ARAP) error messages.

Error Message

%ARAP-3-ABORTED: TTY [dec]: arap callback aborted

Explanation  An unexpected message was received during the MNP4 link setup.

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

Error Message

%ARAP-6-ADDRFREE: TTY [dec]: ARAP ended for user [chars]; address [atalk_net]; [dec] seconds connected

Explanation  This message appears only when ARA protocol logging is configured. The message notes that an ARA protocol user has logged out.

Recommended Action  No action is required.
Error Message
%ARAP-6-ADDRUSED: TTY [dec]: ARAP started for user [chars]; address [dec].[dec]

Explanation This message appears only when ARA protocol logging is configured. The message notes that an ARA protocol user has logged in.

Recommended Action No action is required.

Error Message
%ARAP-3-BADCONFIG: TTY [dec]: unhandled configuration command

Explanation A configuration command was not recognized.

Recommended Action Check the configuration file on the server for any invalid configuration commands.

Error Message
%ARAP-6-BADEXIT: TTY [dec]: exited user [chars]: [chars]

Explanation A user was disconnected from ARA protocol unexpectedly. The disconnection may be caused by dropped modems, server error, client problems, or other difficulties.

Recommended Action To determine the cause of the disconnection, correlate the receipt of this message with the user problem reports.

Error Message
%ARAP-3-BADPAK: TTY [dec]: Bad packet type in arap_send_msg

Explanation Internal data structures are corrupted.

Recommended Action Check for abnormally high CPU usage.

Error Message
%ARAP-4-CONFAILED: TTY [dec]: ARAP connection failed: [chars]

Explanation The ARA protocol client was denied access, probably because of a configuration problem on the server. The error message should indicate the problem. This message does not indicate access denials caused by the use of bad passwords.

Recommended Action Investigate the problem reported in the error message.
Error Message
%ARAP-0-DEFAULT: TTY [dec]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ARAP-5-INITCONFUSED: TTY [dec]: ARAP unexpected initialization packet [chars]

Explanation  The startup negotiation between a client and the ARA protocol server fell out of order. If this message is received sporadically, it indicates line noise.

Recommended Action  If this message recurs, reinstall the ARA client software.

Error Message
%ARAP-6-LRPHASERROR: TTY [dec]: Received LT in CONNECTION PHASE

Explanation  The router received an invalid packet during the ARA protocol connection setup phase.

Recommended Action  Check for excessive line noise. Check the ARA client software configuration for possible problems.

Error Message
%ARAP-6-MAXRESENGS: TTY [dec]

Explanation  The router resent MNP4 packets the maximum number of times without receiving an acknowledgment.

Recommended Action  To determine the cause of the disconnection, correlate the receipt of this message with the user problem reports.

Error Message
%ARAP-6-MNP4RCVDISC: TTY [dec]: MNP4 input disconnect

Explanation  The router has received a disconnect request from the remote Macintosh client.

Recommended Action  No action is required.
**Error Message**
%ARAP-6-MNP4T401: TTY [dec]: T401 [dec] baud rate [dec]

**Explanation** The router has received a MNP4 connection request. The MNP4 acknowledgment timer value is also indicated.

**Recommended Action** No action is required.

**Error Message**
%ARAP-4-NOEXTTACACS: TTY [dec]: arap TACACS is configured but extended TACACS is not.

**Explanation** TACACS authentication has failed because extended TACACS is not configured.

**Recommended Action** Configure extended TACACS.

**Error Message**
%ARAP-2-NOLOG: TTY [dec]: Could not malloc log

**Explanation** Sufficient memory is not available for internal MNP4 logging.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**
%ARAP-0-NOTNULLRESEND: TTY [dec]

**Explanation** An internal software error has occurred.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**
%ARAP-0-NULLRESEND: TTY [dec]

**Explanation** An internal software error has occurred.

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

%ARAP-5-PAKINVALID: TTY [dec]: ARAP invalid packet received

Explanation: A corrupted packet has reached the ARA protocol code.

Recommended Action: Check for excessive CPU usage or excessive line noise.

Error Message

%ARAP-6-RCVGIANT: TTY [dec]: Rcv giant. dropping frame

Explanation: The router has received an oversized MNP4 frame.

Recommended Action: Check for excessive line noise. Check the ARAP client software configuration for possible problems.

Error Message

%ARAP-6-RCVNOPAK: TTY [dec]: Receive getbuffer failure. dropping frame

Explanation: No buffer exists for an incoming packet.

Recommended Action: Examine buffer usage statistics. Possibly more memory is required.

Error Message

%ARAP-3-REMOTEERROR: TTY [dec]: arap input error

Explanation: ARAP connection was terminated without a known cause.

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

Error Message

%ARAP-6-RESENDLOW: TTY [dec]

Explanation: The router repeated resending of MNP4 packets because the Macintosh client failed to acknowledge previously resent packets.

Recommended Action: If this error message persists for several ARAP connections, report it to your Cisco technical support representative.

Error Message

%ARAP-3-TIMEOUT: TTY [dec]: arap expected message timeout

Explanation: The software timed out during the MNP4 link setup.

Recommended Action: Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ARAP-6-TIMERERROR: TTY [dec]: MNP4 timeout error

Explanation  The router is dropping the connection after doing the maximum number of resends.

Recommended Action  To determine the cause of the disconnection, correlate the receipt of this message with the user problem reports.

Error Message
%ARAP-0-VSERROR: TTY [dec]: VS queued error

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ARAP-0-WAITBADMSG: TTY [dec]: arg msg bad [hex]

Explanation  The router received an invalid packet during the ARAP MNP4 connection setup phase.

Recommended Action  Check for excessive line noise. Check the ARAP client software configuration for possible problems.

Error Message
%ARAP-6-XTICKLE: TTY [dec]: exited user [chars]: Other side stopped answering ARAP tickles (mnp4 pak resent [dec] mnp4 pak sent [dec] last [dec] now [dec])

Explanation  The router disconnected as the remote Macintosh client stopped sending ARAP tickle or data packets.

Recommended Action  To determine the cause of the disconnection, correlate the receipt of this message with the user problem reports.
AS5400 Messages

The following are Cisco AS5400 platform error messages.

Error Message

%AS5400-1-DFC_ERR: DFC [dec]: Detected PCI [chars] Error, CSR=[hex]

Explanation  A PCI error that was caused by a hardware failure has been detected on the DFC. The Cisco IOS software will power down this DFC and clean up the associated system data structures.

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

Error Message

%AS5400-3-HW_ERROR: [chars]

Explanation  A DFC hardware error has been detected. The Cisco IOS software will power down this DFC and cleanup the system data structures associated with it.

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

Error Message

%AS5400-1-OLD_FIRMWARE: [chars]

Explanation  The specified component should have the latest hardware revision. If this hardware revision is not the latest, it must to be updated to the version specified in this message.

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

Error Message

%AS5400-1-UNKNOWN_DFC_INT: Unknown DFC interrupt: DFC slot no [dec], interrupt [dec]

Explanation  An unknown DFC interrupt has been detected.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
AS5400_ENVM Messages

The following are Cisco AS5400 environmental monitor error messages.

Error Message
%AS5400-ENVM-1-CAN_NOT_POWER_ON_DFC: Can’t power on DFC on slot [dec] for unknown reason.

Explanation  An attempt to power on a DFC has failed.

Recommended Action  Check the power plug to the DFC on the slot. If the DFC still fails to power on, unplug the DFC and run diagnostics on it.

Error Message
%AS5400-ENVM-1-DFC_BUSYOUT: All DFCs are busy out due to board over temperature.

Explanation  The system has become overheated. The DFCs have busied out so that they can cool and avoid being damaged.

Recommended Action  Check the air conditioning in the area in which the Cisco AS5400 router is kept. Enter the `show environment` command to display temperature data. Compare the data with the temperature meter to verify the recovery. If the system fails, contact your Cisco technical support representative to replace the temperature sensor.

Error Message
%AS5400-ENVM-1-DFC_POWER_DOWN: A DFC is powered down due to board over-temperature. Slot: [dec], Type: [chars]

Explanation  The system has become overheated. A DFC has powered down to lower the temperature.

Recommended Action  Check the air conditioning in the area in which the Cisco AS5400 router is kept. Enter the `show environment` command to display temperature data. Compare the data with the temperature meter to verify the recovery. If the system fails, contact your Cisco technical support representative to replace the temperature sensor.
Error Message

%AS5400_ENVM-1-DFC_POWER_ON: A DFC is powered on due to board temperature cooling down. Slot: [dec], Type: [chars]

Explanation The temperature in the system has cooled. A DFC has powered on, and the system returns to normal functionality.

Recommended Action Enter the show environment command to display temperature data. Compare the data with the temperature meter to verify the recovery.

Error Message

%AS5400_ENVM-1-DFC_UNBUSYOUT: All DFCs are unbusy out due to board temperature cooling down.

Explanation The system had become overheated and has now cooled. All DFCs return to normal functionality.

Recommended Action Enter the show environment command to display the temperature data. Compare the data with the temperature meter to verify the recovery.

Error Message

%AS5400_ENVM-1-DROP_FAN_MONITOR: Environmental Monitor of Fans is dropped.

Explanation The environmental monitoring of the fans has been dropped. This condition can occur if a temperature sensor at the inlet or outlet fails to work.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.
Error Message

%AS5400_ENVM-1-DROP_TEMP_MONITOR: Environmental Monitor of Temperature is dropped.

Explanation  Environmental temperature monitoring has been dropped. This condition can occur if all temperature sensors fail to work.

Recommended Action  Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.

Error Message

%AS5400_ENVM-3-ENABLE_ENVM: AS5400 Environmental Monitor is enabled.

Explanation  The Cisco AS5400 environmental monitor has been enabled. In certain situations, a configuration command can enable Cisco AS5400 environmental monitor after it was disabled.

Recommended Action  No action is required.

Error Message

%AS5400_ENVM-3-FAN_FAIL: [chars] fail to work.

Explanation  Some cooling fans have failed to work. This error was detected by the temperature delta between the inlet and outlet. A large delta indicates a fan failure.

Recommended Action  Replace the fan as soon as possible. If this is not done, the system may shut itself down or fail to operate properly.

Error Message

%AS5400_ENVM-3-FAN_OK: [chars] recovered to work.

Explanation  Some cooling fans have recovered after a failure. This situation is detected by the temperature delta between the inlet and outlet. A small delta indicates a fan recovery.

Recommended Action  Verify that the fan is working properly by checking all four fans. Enter the `show environment` command to display temperature delta data and verify the recovery.

Error Message

%AS5400_ENVM-1-OIR_POWER_DOWN: Environmental monitor is trying to power down a DFC by simulating OIR removal. Slot: [dec], Type: [chars]

Explanation  The system has become overheated. A DFC has powered down to lower the temperature. The environmental monitor uses OIR to power down the DFC.

Recommended Action  Ensure that the room temperature is not too high and that air flow to the card is not blocked. Check the air conditioning surrounding the Cisco AS5400 router.
Error Message
%AS5400_ENVM-1-OIR_POWER_ON: Environmental monitor is trying to power on a DFC by simulating OIR insertion. Slot: [dec], Type: [chars]

Explanation The temperature has cooled down inside the chassis after overheating. When the board temperature cools, a DFC is powered on and resumes functionality. The environmental monitor uses OIR to power on the DFC.

Recommended Action No action is required.

Error Message
%AS5400_ENVM-1-OK_FAN_MONITOR: Environmental Monitor of Fans is recovered.

Explanation Environmental monitoring of the fans has recovered. This condition can occur if the temperature sensors at either the inlet or outlet recover. A console message is sent out, and the alarm is disabled. The fan state is set to normal.

Recommended Action Enter the show environment command to display temperature data. Compare the data with the temperature meter to verify the recovery.

Error Message
%AS5400_ENVM-1-OK_TEMP_MONITOR: Environmental Monitor of Temperature is recovered.

Explanation Environmental monitor of temperature has recovered. This condition can occur if a temperature sensor has recovered to work.

Recommended Action No action is required.

Error Message
%AS5400_ENVM-1-TEMP_SENSOR_FAIL: Temperature sensor #[dec] fails to work.

Explanation The health of each temperature sensor is monitored. There are three situations in which a sensor fails to operate normally: a sensor generates extraordinary data, such as higher than 200 degrees Celsius; a temperature change exceeds the maximum temperature in one minute, such as 25 degrees Celsius; or a temperature differential between sensors in the same box is greater than the limit, such as 25 degrees Celsius. When the failure of a temperature sensor is detected, ENVMON will set the temperature state of that sensor as disabled and send out console message. The temperature data from that sensor is ignored.

Recommended Action Enter the show environment command to display temperature data. Compare the data with the temperature meter. If the sensor fails, contact your Cisco technical support representative to replace the temperature sensor.

Error Message
%AS5400_ENVM-1-TEMP_SENSOR_OK: Temperature sensor #[dec] recovers to work.

Explanation The health of each temperature sensor is monitored. There are three situations in which a sensor fails to operate normally: a sensor generates extraordinary data, such as higher than 200 degrees Celsius; a temperature change exceeds the maximum temperature in one minute, such as 25
degrees Celsius; or a temperature differential between sensors in the same box is greater than the limit, such as 25 degrees Celsius. Once the recovery of a temperature sensor is detected, ENVMON will set the state of that sensor as normal and send out console messages. The temperature data from that sensor is read again.

**Recommended Action** Enter the `show environment` command to display temperature data and compare with the temperature meter to verify the recovery.

**Error Message**

%AS5400_ENVM-1-TEMP_STATE: System detected that temperature is in [chars] condition.

**Explanation** The environmental monitor has detected a temperature change that is either a failure or a recovery.

**Recommended Action** Ensure that the room temperature is not too high and that air flow to the card is not blocked. If this condition persists, the environmental monitor might shut down the system. Check air conditioning and the surroundings of the Cisco AS5400 router. Contact your Cisco technical support representative for assistance if necessary.

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**ASPP Messages**

The following are Asynchronous Security Protocol error messages.

**Error Message**

%ASPP-3-NOTTY: [chars]: Unable to set Rx/Tx tty async service hooks.

**Explanation** This message occurs only when ASP is configured. The serial interface using ASP is configured incorrectly or does not support asynchronous mode.

**Recommended Action** Verify that the correct hardware interface type is being used.
AT Messages

The following are AppleTalk (AT) error messages.

Error Message
%AT-6-ACQUIREMODE: [chars]: AppleTalk interface initializing; acquiring [chars]

Explanation The interface is determining the correct configuration. This message is displayed when discovery mode is enabled and no other router is detected.

Recommended Action No action is required.

Error Message
%AT-5-ADDRINUSE: [chars]: AppleTalk node warning; address [atalk_net] already in use

Explanation The hint address initially specified was in use. A search will be made for a valid address.

Recommended Action No action is required.

Error Message
%AT-5-ADDRINVALID: [chars]: AppleTalk node warning; address [atalk_net] is invalid

Explanation The hint address specified for the interface was not valid for the current configuration.

Recommended Action The hint address is ignored and a random valid hint address is automatically computed. No action is required.

Error Message
%AT-6-ADDRUSED: [chars]: AppleTalk node up; using address [atalk_net]

Explanation No hint address or a bad hint address was specified. This message indicates which AppleTalk address will be used for the interface.

Recommended Action No action is required.

Error Message
%AT-2-ASSERTFAILED: AppleTalk assertion failed: [chars]

Explanation The software detected an inconsistency. Although this error is serious, the router will attempt to continue. AppleTalk processing might be impaired.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, note any AppleTalk problems you experience, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%AT-5-BADNEIGHBOR: [chars]: AppleTalk neighbor ignored; [atalk_address] is misconfigured

Explanation  The AppleTalk configuration of a neighboring router does not agree with the AppleTalk configuration of this router. This condition can result from a mismatch between the network range of the neighbor and the network range of this router.

Recommended Action  Modify the configuration of either this router or the neighboring router so that the network ranges agree.

Error Message

%AT-6-BADROUTE: Route to [atalk_net] has gone bad

Explanation  The system did not detect a route within the required timeout period. Therefore, the route is marked as bad. A network might have become unreachable for some reason, perhaps because of a broken connection. This message does not necessarily indicate an error condition.

Recommended Action  No action is required.

Error Message

%AT-7-BUGREPORT: AppleTalk bug: [chars]

Explanation  The software has detected an unexpected condition. The router takes corrective action and continues.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, note any AppleTalk problems you experience, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%AT-3-CANTDEL: Cannot delete [chars] route [dec] by clearing; remove it by reconfiguring

Explanation  The user attempted to remove a route from the routing table by issuing the clear appletalk route command. The command failed because the route was on a directly connected interface that was created when the user configured the router.

Recommended Action  Remove the route by reconfiguring the directly connected interface with which it is associated.

Error Message

%AT-5-COMPATERR1: [chars]: AppleTalk internet compatibility mode required by [atalk_address]

Explanation  A neighboring router supports only extended AppleTalk networks with a cable range of 1 and with one assigned zone; for example, 25-25.

Recommended Action  Upgrade the routers that support only the original AppleTalk specification. In the meantime, observe the compatibility rules for AppleTalk Phase 1 and Phase 2 routers.
Error Message
%AT-5-COMPATERR2: AppleTalk neighbor incompatibility; [atalk_net] has multiple zones

Explanation  Although this router has neighbors that require your internetwork to observe compatibility rules, AppleTalk has learned of a route that has multiple zone names defined. This condition can cause node inconsistencies on your AppleTalk network.

Recommended Action  Upgrade the routers that support only the original AppleTalk specification. In the meantime, observe the compatibility rules for AppleTalk Phase 1 and Phase 2 routers.

Error Message
%AT-5-COMPATERR3: AppleTalk neighbor incompatibility; [atalk_net] has wide cable range

Explanation  Although this router has neighbors that require your internetwork to observe compatibility rules, AppleTalk has learned of a route that has a cable range greater than 1. This condition can cause node inconsistencies on your AppleTalk network.

Recommended Action  Upgrade the routers that support only the original AppleTalk specification. In the meantime, observe the compatibility rules for AppleTalk Phase 1 and Phase 2 routers.

Error Message
%AT-5-COMPATERR4: AppleTalk EIGRP neighbor incompatibility; [atalk_address] has same router ID ([dec])

Explanation  Two routers on the network have the same router ID.

Recommended Action  Reconfigure the router to have a unique router ID. If the problem recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%AT-6-CONFIGOK: [chars]: AppleTalk interface enabled; verified by [atalk_address]

Explanation  The AppleTalk configuration has been verified by consulting the indicated router.

Recommended Action  No action is required.

Error Message
%AT-7-DEBUGMSG: AppleTalk debug: [chars]

Explanation  This message is generated by a debug command and provides additional information about an AppleTalk condition.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, note any AppleTalk problems you experience, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%AT-3-DEFZONEERR: [chars]: AppleTalk interface warning; default zone differs from [atalk_address]

Explanation  During the verification startup process, a disagreement occurred between the default zone (the first zone defined after the appletalk cable-range command) and the router that confirmed the configuration. When an AppleTalk end node is first connected to a network, it joins the default zone until it is overridden.

Recommended Action  Use the appletalk zone command to correct the configuration so that all routers are advertising the same default zone. Note that several router implementations are known to mismanage the default zone.

Error Message

%AT-6-DELRROUTE: AppleTalk network deleted; [atalk_net] removed from routing table

Explanation  A route on the AppleTalk network has aged out.

Recommended Action  No action is required.

Error Message

%AT-3-DISCOFF: [chars]: AppleTalk node warning; discovery mode disabled

Explanation  A hardware or software error has occurred.

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

Error Message

%AT-3-DOMLOOP: Loop detected on domain [dec] [[chars]]

Explanation  The domain router has detected a routing loop. Routing loops are not allowed. The domain router runs a background loop detection process. The domain router starts this process when it receives a new zone list from a domain that is identical to the list in the main routing table and whose network range length matches that in this list. The loop detection process sends several AppleTalk NBP loopback packets. When one of these packets is received on an interface that does not belong to the original domain, the domain router first shuts off all the domains involved in the loop and then shuts off all the interfaces in these domains. The loop detection does not catch all types of loops. The user must ensure that no loop exists.

Recommended Action  Disable the cause of the routing loop. Then use the clear appletalk command to restart the interfaces involved.
Error Message
%AT-3-DOMOVERFLOW: Remap range overflow for [chars] domain [dec]

Explanation The remap range has overflowed. If a network (range) cannot fit inside the remapping range, the network or cable range being advertised by a neighboring router is not accepted. When an overflow occurs, all interfaces in the domain are disabled.

Recommended Action Use the `appletalk domain remap-range` command to increase the remapping range. Then restart the interfaces.

Error Message
%AT-5-DUPADDR: [chars]: AppleTalk interface restarting; node address taken by [enet]

Explanation Another AppleTalk node on a common network interface has claimed the same AppleTalk address that this router was using. This error indicates a serious, unexpected problem. If it recurs, there might be a physical network problem in which the nodes cannot communicate with each other.

Recommended Action The interface on this router restarts AppleTalk processing on the common network interface to resolve the address conflict. No action is required.

Error Message
%AT-6-EIGRPLINKDN: AppleTalk EIGRP link down: [chars]

Explanation An AppleTalk hardware interface has been disabled.

Recommended Action No action is required.

Error Message
%AT-6-EIGRPLINKUP: Appletalk EIGRP link up: [chars]

Explanation An AppleTalk Enhanced IGRP interface that was previously shut down has been restarted.

Recommended Action No action is required.

Error Message
%AT-6-EIGRPLLOG: EIGRP logging: [chars] from [atalk_address] ([int]) on [chars] for network [atalk_net], metric [int] / [int]

Explanation A new AppleTalk Enhanced IGRP path has been learned. The message indicates the source of the path, its distance in hops, its metric, and the type of path.

Recommended Action No action is required.
Error Message

%AT-4-EIGRPLOTSOWORK: AppleTalk EIGRP WorkQ processed [int] entries, required [int] ms, did [chars] suspend

Explanation AppleTalk Enhanced IGRP did not have enough time to process packets.

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

Error Message

%AT-6-EIGRPPEERDN: AppleTalk EIGRP peer down: [atalk_address], router ID: [int], just lost on [chars]

Explanation A peer router is unreachable.

Recommended Action No action is required.

Error Message

%AT-6-EIGRPPEERUP: AppleTalk EIGRP peer up: [atalk_address], router ID: [int], newly heard on [chars]

Explanation A new neighbor has appeared on the network.

Recommended Action No action is required.

Error Message

%AT-5-FDDICOMPAT: AppleTalk FDDI neighbor [atalk_address] using obsolete FDDI addressing

Explanation Another AppleTalk router on the FDDI ring is running a release of the router software earlier than Release 9.0(2). Routers running these early software releases use an encapsulation for AppleTalk on FDDI rings that is not compatible with the Apple FDDITalk implementation.

Recommended Action Upgrade the routers running the software releases that use the pre-FDDITalk encapsulation for AppleTalk on FDDI rings.

Error Message

%AT-3-IFCONFLICT: [chars]: AppleTalk interface disabled; conflicts with interface [chars]

Explanation An attempt has been made to configure an interface to have the same AppleTalk address or cable range as another interface on the same router or a conflicting address.

Recommended Action Verify that you are not specifying an AppleTalk address or cable range used previously on this router, and reconfigure the interface.
Error Message
%AT-5-INTCLEARED: [chars]: AppleTalk interface restarting; interface cleared

   Explanation  A clear interface command has been issued on an interface that is currently routing AppleTalk.

   Recommended Action  No action is required.

Error Message
%AT-5-INTDOWN: [chars]: AppleTalk node down; line protocol down

   Explanation  An AppleTalk hardware interface has been disabled because of a bad serial line, a configuration command, or a bad interface. If the interface was not disabled intentionally, this message indicates a hardware problem.

   Recommended Action  Repair or replace the affected hardware.

Error Message
%AT-5-INTRESTART: [chars]: AppleTalk interface restarting; protocol restarted

   Explanation  The hardware interface was reset because of a configuration change. After the reset, AppleTalk automatically reinitialized the interface.

   Recommended Action  No action is required.

Error Message
%AT-6-INTUP: [chars]: AppleTalk interface restarting; line protocol came up

   Explanation  An AppleTalk interface that was previously shut down has been restarted.

   Recommended Action  No action is required.

Error Message
%AT-3-INVNBPCMD: Invalid NBPtest command [chars]

   Explanation  An unrecognized command was specified in the NBP test facility.

   Recommended Action  Enter a valid command.

Error Message
%AT-5-LOSTNEIGHBOR: [chars]: AppleTalk neighbor down; lost contact with [atalk_address]

   Explanation  A peer router is unreachable.

   Recommended Action  No action is required.
Error Message

%AT-6-MACIPDOWN: [chars]: MacIP server shutting down, [IP_address]

Explanation  If the appletalk event-logging command is configured, this message appears on the console when a MacIP server is no longer operational for any reason. MacIP servers shut down in response to MacIP configuration changes or errors or to a change in the condition or configuration of an AppleTalk or IP interface for which the MacIP server is providing service. The AppleTalk zone served by the MacIP server replaces the zone specified in the appletalk zone command. The IP address configured on the MacIP server replaces the IP address configured by the ip address command.

Recommended Action  No action is required.

Error Message

%AT-4-MACIPNOCABLE: [chars]: MacIP inoperable IP interface, [IP_address]

Explanation  If the appletalk event-logging command is configured, this message appears on the console when a MacIP server can no longer operate because of a change in the condition of the IP interface it serves. This condition can occur if IP routing is shut down on the interface or if the IP address of the interface is changed so that the IP address of MacIP server is no longer valid on the same cable. The AppleTalk zone served by the MacIP server replaces the zone specified in the appletalk zone command. The IP address configured on the MacIP server replaces the IP address configured by the ip address command.

Recommended Action  No action is required.

Error Message

%AT-6-MACIPUP: [chars]: MacIP server operational, [IP_address]

Explanation  If the appletalk event-logging command is configured, this message appears on the console when a MacIP server is fully initialized and is ready to accept client requests. The AppleTalk zone served by the MacIP server replaces the zone specified in the appletalk zone command. The IP address configured on the MacIP server replaces the IP address configured by the ip address command.

Recommended Action  No action is required.

Error Message

%AT-3-MCMISMATCH: [chars]: AppleTalk interface warning; zone multicast [enet] differs from our multicast [enet]

Explanation  A computed multicast address disagrees with that provided by another AppleTalk router. The other AppleTalk router may be misconfigured or faulty.

Recommended Action  Correct the problem at the other router.
Error Message
%AT-6-NBRDELETED: Neighbor entry for [atalk_address] deleted

Explanation  The clear appletalk neighbor command displays this message when it is completed.

Recommended Action  No action is required.

Error Message
%AT-6-NEIGHBORUP: [chars]: AppleTalk neighbor up; [atalk_address] has restarted

Explanation  A neighboring router to which this router previously lost connectivity has reappeared on the network.

Recommended Action  No action is required.

Error Message
%AT-3-NETDISAGREES: [chars]: AppleTalk interface disabled; network incompatible with [atalk_address]

Explanation  The interface has been disabled because the configured AppleTalk address or cable range for the interface conflicts with that of another router on the attached network.

Recommended Action  Reconfigure the affected routers so that there are no conflicting addresses or cable ranges on the attached network.

Error Message
%AT-4-NETINVALID: [chars]: AppleTalk node down; conflicts with active internet

Explanation  The configuration specified for the interface conflicts with the active AppleTalk internetwork. For example, a cable range might be configured in a way that overlaps an existing route but does not match the entry exactly.

Recommended Action  Use the appletalk cable-range command to reconfigure the interface so that there are no conflicts with the existing AppleTalk network, or take any other actions necessary to resolve the conflict. AppleTalk will periodically attempt to restart the interface.

Error Message
%AT-6-NEWNEIGHBOR: [chars]: AppleTalk neighbor added; [atalk_address] is operational

Explanation  The router has discovered a new AppleTalk router on the network.

Recommended Action  No action is required.
Error Message
%AT-6-NEWROUTE: [chars]: AppleTalk network added; [atalk_net] via [atalk_address]
([dec] hop [chars])

Explanation  A new AppleTalk route has been learned. The message indicates the source of the route
and its distance in hops.

Recommended Action  No action is required.

Error Message
%AT-6-NEWZONE: AppleTalk zone added; zone [chars] defined

Explanation  A new AppleTalk zone has been created.

Recommended Action  No action is required.

Error Message
%AT-3-NOADDRSAVAIL: [chars]: AppleTalk node down; no addresses available

Explanation  A free node could not be found on the interface.

Recommended Action  If your AppleTalk network has fewer than 250 nodes, issue the debug appletalk
errors command and then call your Cisco technical support representative. If your AppleTalk
network has more than 250 nodes, split it into smaller networks by creating new segments and
moving some nodes into the new segments.

Error Message
%AT-3-NOBESTPATH: Could not compute best path for network [atalk_net]

Explanation  A path to the specified network could not be found.

Recommended Action  Use the show appletalk route command to verify that a path to the specified
network exists. If it does, copy the error message exactly as it appears, and report it along with the
output of the show appletalk route command to your technical support representative.

Error Message
%AT-6-NODEWRONG: [chars]: AppleTalk node [atalk_address] misconfigured; reply has been broadcast

Explanation  An AppleTalk node has sent a GetNet Info request to this router specifying an invalid
network number for the source of the GetNet Info request. This situation occurs when an AppleTalk
end node is moved to another network and is therefore misconfigured for the current network.

Recommended Action  No action is required.
Error Message

%AT-1-NOMEM: Could not allocate memory for [chars] at line [dec] in [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%AT-6-NOPROXY: AppleTalk proxy deleted; zone [chars] freed network [atalk_net]

Explanation  A previously configured NBP proxy has been deleted. The router can no longer convert NBP requests to a format understood by routers that support only the original AppleTalk specification.

Recommended Action  No action is required.

Error Message

%AT-3-NOROUTE: No route to destination [atalk_address]

Explanation  The router could not deliver a packet to a destination because it did not know where to send it.

Recommended Action  Use the `show appletalk route` command to verify that a path to the destination exists. If it does, copy the error message exactly as it appears, and report it with the output of the `show appletalk route` command to your Cisco technical support representative.

Error Message

%AT-3-NOSRCADDR: [chars]: AppleTalk packet error; no source address available

Explanation  The router could not generate an AppleTalk packet because no valid AppleTalk source address was available to identify this router in the packet.

Recommended Action  Configure an interface to have an address or cable range. Use the `show appletalk` command to verify that the interface is operational.

Error Message

%AT-3-NOSUCHNBR: No such neighbor, [atalk_address]

Explanation  The user has specified a nonexistent neighbor address in a `show appletalk neighbor` or `clear appletalk neighbor` command.

Recommended Action  Specify a valid neighbor address that appears in the output of the `show appletalk neighbor` command.
Error Message
%AT-5-NOSUCHROUTE: No such route [dec]

Explanation  The user has specified a nonexistent route in a show appletalk route or clear appletalk route command.

Recommended Action  Specify a valid route that appears in the output of the show appletalk route command.

Error Message
%AT-3-NOTRUNNING: AppleTalk not running

Explanation  The user tried to show or change the AppleTalk configuration when AppleTalk routing was not turned on.

Recommended Action  Issue the appletalk routing command before issuing any other AppleTalk configuration or display command.

Error Message
%AT-5-NOTSUPPORTED: [chars]: AppleTalk node down; line protocol not supported

Explanation  An encapsulation method on the specified interface does not support AppleTalk.

Recommended Action  No action is required.

Error Message
%AT-3-NOVIRTUAL: [chars]: client tried to connect, but no virtual network is declared

Explanation  A hardware or software error has occurred.

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

Error Message
%AT-5-OLDMCI: [chars]: AppleTalk route cache disabled; firmware is obsolete

Explanation  The firmware on the MCI controller card does not support AppleTalk fast switching.

Recommended Action  No corrective action is required. Normal AppleTalk operation continues, but the fast-switching cache is disabled for the interface associated with the MCI card. If this message is unexpected, verify that the MCI firmware for the interface specified in the error message is at level 1.7 or higher.
Error Message
%AT-6-ONLYROUTER: [chars]: AppleTalk interface enabled; no neighbors found

Explanation No other AppleTalk routers were found on the network attached to the interface.

Recommended Action No action is required.

Error Message
%AT-3-OUTOFSYNC: [chars]: AURP connection out of sync...terminating

Explanation AURP has detected packets that were out of sequence. This situation might be caused by a lost connection.

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

Error Message
%AT-6-PATHADD: [chars]: AppleTalk [chars] path to network [atalk_net] added; via [atalk_address] (metric [dec])

Explanation A new AppleTalk path has been learned. The message indicates the source of the path, its distance in hops, its metric, and the type of path.

Recommended Action No action is required.

Error Message
%AT-5-PATHCHANGE: Route to [atalk_net] is now using path of type [chars] on [chars] via [atalk_address]

Explanation The path to a network has changed because either the old path went down or a better path has been found.

Recommended Action No action is required.

Error Message
%AT-6-PATHDEL: [chars]: AppleTalk [chars] path to [atalk_net] via [atalk_address] has been deleted

Explanation A path on the AppleTalk network has aged out.

Recommended Action No action is required.
Error Message
%AT-6-PATHNOTIFY: [chars]: AppleTalk [chars] path to [atalk_net] down; reported bad by [atalk_address]

Explanation  A router has gone down somewhere on the AppleTalk network. The indicated peer notified this router of the change.

Recommended Action  No action is required.

Error Message
%AT-4-PATHREJECTED: AURP path [atalk_net] rejected; conflict detected

Explanation  The router has detected a conflicting cable range. A router is configured to have a cable range that overlaps with an existing range but does not match the entry exactly.

Recommended Action  Use the show appletalk command to identify the overlapped cable range, and then reconfigure the misconfigured router.

Error Message
%AT-6-REGPENDING: NBP registration of [chars] at [[chars]] pending

Explanation  A name registration call is being performed.

Recommended Action  No action is required.

Error Message
%AT-6-ROUTEDOWN: [chars]: AppleTalk network down; interface to [atalk_net] disabled

Explanation  A connected route is being advertised as down (“notify neighbor”) because the configured interface is no longer operational.

Recommended Action  No action is required.

Error Message
%AT-6-ROUTENOTIFY: [chars]: AppleTalk network down; [atalk_net] reported bad by [atalk_address]

Explanation  A router has gone down somewhere on the AppleTalk network. The indicated peer notified this router of the change.

Recommended Action  No action is required.

Error Message
%AT-6-ROUTEOK: [chars]: AppleTalk network up; [atalk_net] via [atalk_address] ([dec] hop [chars])

Explanation  A routing update has been received for a previously suspect route.

Recommended Action  No action is required.
Error Message

%AT-5-RTMPSTATE: [chars]: RTMP path to [atalk_net] via [atalk_address] now in [chars] state (metric [dec], [dec] hops)

**Explanation** The state of a path has changed.

**Recommended Action** No action is required.

Error Message

%AT-3-SUBROUTINE_ERROR: AppleTalk error: [chars]

**Explanation** An internal error has occurred. Specifically, a programming assertion in the AppleTalk networking code was violated.

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

Error Message

%AT-3-ZONEDISAGREES: [chars]: AppleTalk interface disabled; zone list incompatible with [atalk_address]

**Explanation** The zone list of the configured interface is inconsistent with the zone list of other routers.

**Recommended Action** Reconfigure the zone list on the router so that it does not conflict with the zone lists on other routers.

Error Message

%AT-6-ZONEGC: AppleTalk zone deleted; zone [chars] released

**Explanation** The router has removed an unused zone from the zone table.

**Recommended Action** No action is required.

Error Message

%AT-6-ZONEPROXY: AppleTalk proxy defined; zone [chars] using network [atalk_net]

**Explanation** This message reports the zone name and network number that are being advertised to support the **appletalk nbp-proxy command**. When proxy service is initiated, this message is generated each time the **appletalk nbp-proxy** command is issued.

**Recommended Action** No action is required.
ATM Messages

The following are Asynchronous Transfer Mode (ATM) error messages.

Error Message

%ATM-5-ATMSOFTSTART: Restarting ATM signalling and ILMI on [chars].

**Explanation** The command just entered causes ATM soft restart.

**Recommended Action** Wait for ATM signaling and ILMI to restart.

Error Message

%ATM-2-FAILATMSWDB: Fail malloc atm_swdb at [chars]

**Explanation** System memory exhaustion has caused an internal software error in the ATM subsystem.

**Recommended Action** If the system exhibits any unexpected behavior as a result of this memory exhaustion, it may have to be reset to clear the error. Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%ATM-3-FAILCREATEVC: ATM failed to create VC(VCD=[dec], VPI=[dec], VCI=[dec]) on Interface [chars], (Cause of the failure: [chars])

**Explanation** This message can occur for the following unrelated reasons. Each reason is accompanied by a recommended action.

- The VCD exceeded the maximum available memory. Use a smaller VCD number.
- ARP is allowed only on AAL5-SNAP virtual circuits. Change the encapsulation to AAL5SNAP.
- The VPI-VCI pair or the VCD is already in use. Use a different VPI-VCI or VCD number.
- Only one VCC is allowed on a point-to-point interface. Use a different subinterface.
- AAL3/4-SMDS virtual circuit must be the only virtual circuit on an interface. Turn off AAL3/4.
- AAL3/4-SMDS MID exceeds the maximum. Use a smaller MID value.
- SMDS is not enabled. Enable SMDS.
- The driver failed to accept the virtual circuit. Initiate the virtual circuit again.

**Recommended Action** If none of the listed actions fixes the problem, copy the error message exactly as it appears and report it to your Cisco technical support representative.
Error Message
%ATM-5-ILMIACCFILTER: New access filter setting will be applied to registration of new addresses on [chars].

Explanation The command just entered sets up new ILMI access filter for address registration. It affects only new addresses to be registered. The addresses already registered will not be affected.

Recommended Action Enter the `shutdown` command followed by the `no shutdown` command on this interface to restart address registration if you need to remove addresses already registered but not permitted by the new access filter.

Error Message
%ATM-5-ILMIADDREG: Address registration on [chars] is enabled. It will be initiated at next interface restart.

Explanation The command just entered enables ATM address registration.

Recommended Action Enter the `shutdown` command followed by the `no shutdown` command on this interface if you must start address registration immediately; otherwise, wait for the next interface restart.

Error Message
%ATM-6-ILMIAUTOCFGALREADY: ILMI([chars]): Auto-configuration already enabled.

Explanation ATM autoconfiguration has already been enabled. The `atm auto-configuration` command just entered is ignored.

Recommended Action No action is required.

Error Message
%ATM-4-ILMICONFIGCHANGE: ILMI([chars]): Restarting ATM signalling and ILMI. Peer Configuration change detected.

Explanation The configuration of an adjacent peer device has been changed.

Recommended Action Wait for the interface to restart itself.

Error Message
%ATM-5-ILMIDEFACCFILTER: New global default access filter setting will be applied to registration of new addresses on interfaces using global default access filter.

Explanation The command just entered sets up a new global default access filter for address registration. It affects only new addresses to be registered on interfaces using the global default. The addresses that are already registered will not be affected.

Recommended Action Enter the `shutdown` command followed by the `no shutdown` command on the desired interfaces to restart address registration if you must remove addresses already registered but not permitted by the new global default access filter.
**Error Message**

%ATM-4-ILMIKEEPALIVEFAIL: ILMI([chars]): Restarting ATM signalling and ILMI. Keepalive failure detected.

**Explanation**  The adjacent peer device is not responding to ILMI keepalive polling.

**Recommended Action**  Check the connection of the ATM interface and the status of the adjacent peer device. Correct them if necessary. Monitor the system to check if ILMI keepalive comes up again. If this 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**

%ATM-6-ILMINOAUTOCFG: ILMI([chars]): Auto-configuration is disabled, current interface parameters will be used at next interface restart.

**Explanation**  The command just entered causes autoconfiguration to be disabled. The most recently entered interface parameters will be used at the next interface restart.

**Recommended Action**  Note which parameters have been configured.

**Error Message**

%ATM-6-ILMINOAUTOCFGALREADY: ILMI([chars]): Auto configuration already disabled.

**Explanation**  ATM autoconfiguration has been enabled already. The `no atm auto-configuration` command just entered is ignored.

**Recommended Action**  No action is required.

**Error Message**

%ATM-4-MTUCALLMISMATCH: Call from:
ATM NSAP - [chars]
has mismatched PDU size - forward size is [dec] - backward size is [dec],
int [chars] PDU size [chars] [chars]

**Explanation**  The calling or called party has an MTU size configured that is different from the MTU size on the current interface.

**Recommended Action**  Either change the configured MTU size on the current interface to that of the calling or called party’s interface or change the calling or called party’s interface to match the current interface.
Error Message

%ATM-1-NOPUSRAM: Unit [dec], not enough interface memory

Explanation  The specified ATM interface hardware has run out of interface memory.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ATM-3-OUT_OF_VCDS: ATM failed to create VC on Interface [chars]

Explanation  The ATM subsystem has run out of the internal resources necessary to create a new virtual circuit. This situation may indicate a software error.

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

Error Message

%ATM-3-OVERSUBSCRIBED: Interface [chars]: Total [chars] allocation [int][chars] exceeded maximum [chars] of [int][chars].

Explanation  A software or hardware error has occurred.

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

Error Message

%ATM-4-UNMATCHUNIVERSION: ([dec]/[dec]/[dec]): [chars]. Please verify peer UNI version

Explanation  The ATM peer equipment appears to be running an old version of ATM UNI and communication with it is not possible.

Recommended Action  The peer equipment needs to be upgraded in order to communicate with this system.

Error Message

%ATM-3-UNSUPPORTED_QOS_PARAMS: ATM failed to create VC on Interface [chars]

Explanation  Either the configuration contains invalid traffic shaping parameters or the software has run out of rate queues.

Recommended Action  Check the configuration for errors.
Error Message

%ATM-5-UPDOWN: Changing VC [dec]/[dec] VC-state to [chars]

Explanation  The ATM VC is either created, removed, activated, or deactivated.

Recommended Action  No action is required if the status change is intended; otherwise, note the cause for the status change. Entering the **shutdown** command followed by the **no shutdown** CLI command deactivates and activates the VC.

Error Message

%ATM-4-VPIVCIRANGE: VPI/VCI range parameters are dis-joint on [chars]

Explanation  The MinSvcVci is greater than the MaxVci, after negotiation with the peer through ILMI.

Recommended Action  Disable autoconfiguration on both sides and change the port configuration appropriately so that SVCCs can be set up.

ATMCES Messages

The following are ATM access concentrator protocol control information (PCI) port adapter driver error messages.

Error Message

%ATMCES-1-BAD1575: The 1575 device could not be initialized on bay [dec], shutting down bay

Explanation  The port adapter has failed its initialization.

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

Error Message

%ATMCES-3-BADALTERACONFIG: Couldn’t configure the Altera, DIO not reset

Explanation  The port adapter has failed its initialization.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ATMCES-3-BADALTERAINIT: Couldn’t initialize the Altera, DIO not set

Explanation The port adapter has failed its initialization.

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

Error Message
%ATMCES-3-BADBRDGCFG: Couldn’t get bridge configuration: [chars]

Explanation The bridge configuration has failed.

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

Error Message
%ATMCES-1-BADDATATYPE: Invalid Port Adapter Hardware Type Type=[dec]

Explanation The port adapter ID is incorrect.

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

Error Message
%ATMCES-1-BADSLAVE: The Slave device could not be initialized on bay [dec], shutting down bay

Explanation The port adapter has failed its initialization.

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

Error Message
%ATMCES-1-ERRCREATEVC: The 1575 device failed to create VC [dec], file:[chars] line:[dec]

Explanation The port adapter has encountered errors in setting up the VC.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ATMCES-1-ERRRMVC: The 1575 device not totally clean in removing VC [dec], file:[chars] line:[dec]

**Explanation**  The port adapter has encountered errors in shutting down the VC. This may affect future VC creation.

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

Error Message
%ATMCES-3-NOTATMCESDEV: Device reported [hex]

**Explanation**  The PCI device ID was not correct.

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

**ATMCORE Messages**

The following are ATM core error messages.

Error Message
%ATMCORE-4-ATM_SYS_ERROR: [chars]

**Explanation**  The ATM core subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMCORE-2-INTERNAL_CRITICAL: [chars]

**Explanation**  The ATM core subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
ATMOC3 Messages

Error Message

%ATMCORE-3-INTERNAL_ERROR: [chars]

**Explanation**  The ATM core subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ATMCORE-4-INTERNAL_WARNING: [chars]

**Explanation**  The ATM core subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

ATMOC3 Messages

The following are ATM OC-3 network module error messages.

Error Message

%ATMOC3-1-DISCOVER: The Network Module in slot [dec] did not initialize.

**Explanation**  The network module has failed its initialization.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ATMOC3-1-GENERAL: [chars] error.

**Explanation**  A nonrecoverable error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%ATMOC3-1-INITFAIL: The Network Module in slot [dec] failed to initialize (cause [chars]).

Explanation The network module has failed its initialization.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMOC3-1-INVALID_PCI_ID: The network module hardware reports an invalid [chars] device id of [hex].

Explanation The ATMOC3 network module hardware may have failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMOC3-1-PCMCIA: The ATM Network Module in slot [dec] is incompatible with the PCMCIA controller in the router.

Explanation The PCMCIA controller contains downlevel software.

Recommended Action Copy the error message exactly as it appears on the console or in the system log and contact your Cisco technical support representative for upgrade information.

Error Message
%ATMOC3-1-PVP: [chars] traffic type not allowed in a PVP.

Explanation The specified traffic type cannot be configured in a PVP.

Recommended Action Either change the traffic type of this VC or remove it from the PVP.

Error Message
%ATMOC3-1-PVP_VC: Failed to activate F4 [chars] VC. PVP [dec].

Explanation The required control VC was not established.

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

%AATMOC3-1-TOOBIG: [chars], packet(size [dec]) too big.

**Explanation** A packet greater than 256 bytes has been received on this interface.

**Recommended Action** The system should recover. No action is required. If the problem recurs, the error might be related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**ATMPA Messages**

The following are ATM port adapter error messages.

**Error Message**

%AATMPA-3-BADPARTICLE: [chars]: bad rx particle [hex] flags [hex] index [dec]

**Explanation** The PA host driver has detected a duplicate Rx host buffer returned.

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

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**Error Message**

%AATMPA-3-BADVCD: [chars] bad vcd [dec] packet [hex] [hex] [hex] [hex] [hex] [hex]

**Explanation** The port adapter has received a packet on a nonexistent VC.

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

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**Error Message**

%AATMPA-5-BADVSETUP: ti1570_vc_setup failed. (vci [dec] of the lastvpi [dec] exceeds (vc-per-vp - 3)).

**Explanation** The TI1570 chip reserves three Rx DMA channels for OAM cells. As a result, the last three VCIs of the last VPI block cannot be used for regular traffic.

**Recommended Action** Do not try different VCI and VPI combinations.
Error Message

%ATMPA-3-CMDFAIL: [chars] Command Failed at [chars] - line [dec], arg [dec]

Explanation  The port adapter has failed to process a command.

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

Error Message

%ATMPA-1-CTRLMEMFAIL: [chars] control memory bad [dec]

Explanation  A memory test failed within the PCI control memory. This error probably indicates a memory chip has failed.

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

Error Message

%ATMPA-7-CWREG00: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

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

Error Message

%ATMPA-7-CWREG01: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

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

Error Message

%ATMPA-7-CWREG02: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ATMPA-7-CWREG03: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

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

Error Message
%ATMPA-7-CWREG04: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

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

Error Message
%ATMPA-7-CWREG05: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

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

Error Message
%ATMPA-7-CWREG06: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

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

Error Message
%ATMPA-7-CWREG07: [chars] [hex], [chars] [hex], [chars] [hex], [chars] [hex]

Explanation  This message indicates that a SAR CW4010 registers dump has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ATMPA-3-DISCOVER: found [dec] interfaces on bay [dec] (device ID [hex])

Explanation  The software could not identify the interface card.

Recommended Action  Power down the system, reseat the interface card, and reboot. If the error message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%ATMPA-1-GIANTPAK: [chars] vc [dec] received a giant packet size [dec] - [hex] [hex] [hex] [hex] [hex] [hex]

Explanation  The port adapter has received a packet that is larger than the maximum size allowed (a giant packet).

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

Error Message
%ATMPA-3-INITFAIL: ATMPA (bay [dec]), Init Failed at [chars] - line [dec]

Explanation  The port adapter has failed to complete hardware initialization.

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

Error Message
%ATMPA-1-INVALIDCONFIG: VIP2-40 and below only supports one OC-3 ATM PA. The other PA bay needs to be emptied in order for the ATM PA to function.

Explanation  The bandwidth requirements of the installed port adapters exceed the rated capability of the processor.

Recommended Action  Either remove one of the port adapters or upgrade the VIP.
Error Message

%ATMPA-2-INVDEVICE: Slot [dec] device is invalid (ID [hex])

Explanation  The ATM Deluxe PCI driver found an incorrect PCI device ID during initialization. This message could indicate that a hardware failure has caused an actual failure to read the ID, or that the software needs to be upgraded to support hardware that did not exist yet when the software was written.

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

Error Message

%ATMPA-7-MISC0: 00 [hex], 01 [hex], 02 [hex], 03 [hex]

Explanation  This message indicates that a SAR miscellaneous dump has occurred.

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

Error Message

%ATMPA-7-MISC1: 04 [hex], 05 [hex], 06 [hex], 07 [hex]

Explanation  This message indicates that a SAR miscellaneous dump has occurred.

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

Error Message

%ATMPA-7-MISC2: 08 [hex], 09 [hex], 10 [hex], 11 [hex]

Explanation  This message indicates that a SAR miscellaneous dump has occurred.

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

Error Message

%ATMPA-7-MISC3: 12 [hex], 13 [hex], 14 [hex], 15 [hex]

Explanation  This message indicates that a SAR miscellaneous dump has occurred.

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

%ATMPA-3-NOTTI1570: Slot [dec] device is not TI1570 (ID [hex])

Explanation The driver has found an unexpected device type in the specified PCI slot. If the device is a TI1570, then a hardware failure may have occurred.

Recommended Action Power down the system, reseat the interface card, and reboot. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%ATMPA-3-NOTXDESCSPACE: [chars] No tx descriptor space in buffer, data block [hex], data start [hex]

Explanation The driver could not allocate memory for a packet. This message is probably caused by memory exhaustion.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%ATMPA-3-PCIMEMNOTENOUGH: Only [hex] bytes of memory available for [chars]

Explanation The port adapter needs more PCI memory. The installed amount is less than the amount required by the drivers for packet buffers.

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

Error Message

%ATMPA-3-PCI_PERROR: TI1570 unit [dec]: PCI parity error ([hex])

Explanation A parity error has occurred on the PCI bus. This message probably indicates an existing or developing hardware failure.

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

Error Message

%ATMPA-7-REG00: [chars] [hex], [chars] [hex], [chars] [hex]

Explanation This message indicates that a SAR APU registers dump has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ATMPA-7-REG01: [chars] [hex], [chars] [hex], [chars] [hex]

Explanation This message indicates that a SAR APU registers dump has occurred.

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

Error Message
%ATMPA-7-REG02: [chars] [hex], [chars] [hex], [chars] [hex]

Explanation This message indicates that a SAR APU registers dump has occurred.

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

Error Message
%ATMPA-7-REG03: [chars] [hex], [chars] [hex], [chars] [hex]

Explanation This message indicates that a SAR APU registers dump has occurred.

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

Error Message
%ATMPA-1-REGFAIL: register [hex] write value [hex] but read [hex]

Explanation The port adapter has failed to write a register.

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

Error Message

Explanation The port adapter has failed to send a report from the VIP.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ATMPA-3-RXDMANOTINACT: RX DMA entry [hex] not going inactive

Explanation  A receive DMA channel failed to deactivate during the shutdown of a virtual circuit. This failure could originate in either the hardware or software.

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

Error Message
%ATMPA-3-RXFREEZE: [chars]: receive freeze [dec]

Explanation  Excessive traffic congestion on the ATM interface may have resulted in cell loss. The cell buffers of the PCI-ATM interface were full when a cell arrived on the interface, resulting in a receive freeze condition.

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

Error Message
%ATMPA-3-SARCRASH: [chars]: SAR[dec] Chip Crashdump:

Explanation  The SAR chip has crashed, and the interface is being reset.

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

Error Message
%ATMPA-3-TXDMANOTFLUSHED: TX DMA not flushed

Explanation  A transmit DMA channel has failed to flush its buffers during the shutdown of an ATM interface. This failure could originate in either the hardware or software.

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

Error Message
%ATMPA-3-TXFREEZE: [chars]: transmit freeze [dec]

Explanation  The PCI-ATM interface had to stop the transmitter while waiting for data.

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

%ATMPA-3-UNSUPPORTED: [chars]: Non supported command

**Explanation** An attempt was made to configure a rate queue on an ATM Lite port adapter that does not support rate queues.

**Recommended Action** Check the configuration and try again, avoiding unsupported features.

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**ATMSIG Messages**

The following are ATM signaling subsystem error messages

**Error Message**

%ATMSIG-3-ATMSIG_CUG_DELETE_FAILED: ATMSIG([chars])

**Explanation** A software error occurred during the removal of a member from a closed user group. Other error messages appearing immediately prior to this one may be related.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%ATMSIG-3-ATMSIG_CUG_INSERT_FAILED: ATMSIG([chars])

**Explanation** A software error has occurred during the addition of a member to a closed user group. Other error messages appearing immediately prior to this one may be related.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%ATMSIG-3-ATMSIG_LISTEN_FAILED_DUP: Duplicate LISTEN by [chars] for existing NSAP [chars] owned by [chars]

**Explanation** An application attempted either to LISTEN on an NSAP owned by another application or to LISTEN for the same NSAP twice.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%ATMSIG-3-ATMSIG_PRTY_DELETE_FAILED: ATMSIG([chars] [dec],[dec] - [dec]/[dec])
avl prty del failed:svc [hex] party [hex]

Explanation  A software error occurred during the removal of a party from a point-to-multipoint call. Other error messages appearing immediately prior to this one may be related.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-3-ATMSIG_PRTY_INSERT_FAILED: ATMSIG([chars] [dec],[dec] - [dec]/[dec])
avl prty ins failed:svc [hex] party [hex]

Explanation  A software error occurred during the addition of a party to a point-to-multipoint call. Other error messages appearing immediately prior to this one may be related.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-3-ATMSIG_SVC_DELETE_FAILED: ATMSIG([chars] [dec],[dec] - [dec]/[dec])
svc wavl del failed:svc [hex]

Explanation  A software error occurred during the closure of an SVC. Other error messages appearing immediately prior to this one may be related.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%ATMSIG-3-ATMSIG_SVC_INSERT_FAILED: ATMSIG([chars] [dec],[dec] - [dec]/[dec]) SVC wavl ins failed:svc [hex]

Explanation A software error occurred during the creation of an SVC. Other error messages appearing immediately prior to this one may be related.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-4-CONFIG_ERROR: Configuration Error: [chars] [chars]

Explanation This message indicates that a configuration error has occurred in the ATM Signaling subsystem. The message will display more specific information about the problem location.

Recommended Action Change the configuration to correct the error.

Error Message
%ATMSIG-3-DBINITFAIL: Signalling control block initialization failure, [chars]

Explanation An internal software or resource error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-3-ENQFAIL: process_enqueue failed, [chars]

Explanation An internal software error occurred while a user request was being handled.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%ATMSIG-3-FAIL1STHALFLEG: 1st halfLeg failed, [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-3-FAIL2NDHALFLEG: 2nd halfLeg failed, [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-3-FAILASSERT: Assertion failed: [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ATMSIG-3-FAILHALFLEGREM: halfLeg removal failed, [chars]

Explanation  An internal software error has occurred. This message should be displayed only when verbose debugging is enabled for an SVC.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
**Error Message**

%ATMSIG-3-FAILXCONN: Xconnect failed, [chars]

**Explanation**  
An internal software error occurred during the installation of an SVC cross-connect.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%ATMSIG-3-INVPNNIMSG: Invalid msg from routing/pnni : [chars]

**Explanation**  
This message indicates that an error has occurred in the PNNI routing subsystem. It could be caused by an internal software error or by bad control information received from the peer equipment. The message will contain additional information that can help locate the cause. Any message with “NULL” probably indicates a problem with this system; other messages probably indicate a problem with the peer equipment.

**Recommended Action**  
Check this system and the peer equipment for any obvious errors. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ATMSIG-3-NOCALLREF: Cannot find a Callref value to allocate: [chars]

**Explanation**  
An internal software error, probably including memory exhaustion, has occurred.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%ATMSIG-3-NOSVC: no SVC, [chars]

**Explanation**  
An internal software error has occurred.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
ATMSSCOP Messages

The following are ATM Service Specific Connection Oriented Protocol (SSCOP) error messages.

Error Message

%ATMSSCOP-3-SSCOPERR: INIT SSCOP -
Intf: [chars], Event: [chars], State: [chars].

Explanation A software error has occurred in the ATM SSCOP subsystem.

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

Error Message

%ATMSSCOP-5-SSCOPINIT: - Intf: [chars], Event: [chars], State: [chars].

Explanation This message indicates a routine step of the ATM SSCOP initialization sequence.

Recommended Action No action is required.

Error Message

%ATMSSCOP-4-UNMATCHUNIVER: ([chars]): [chars]. Please verify peer UNI version

Explanation The ATM peer equipment appears to be running an old version of ATM UNI. Communication with it is not possible.

Recommended Action The ATM peer equipment may need attention. Verify that the version of ATM UNI is at least Version 3.1 and upgrade if necessary.

AUTORP Messages

The following are Protocol Independent Multicast version 2 (PIMv2) Auto-Rendezvous Point error messages.

Error Message

%AUTORP-4-MANY_RPS: Many items in learned RP queue: [dec]

Explanation There is an abnormally large number of items in the RP queue. This could indicate that the system CPU is overloaded.

Recommended Action Reduce other system activity to ease processor demands. If conditions warrant, consider changes to the network architecture to handle more volume, including upgrading to a larger router.
Error Message

%AUTORP-5-MAPPING: RP for [IP_address]/[dec] is now [IP_address]

Explanation A new RP has been elected for the subject group prefix.

Recommended Action No action is required.

Error Message

%AUTORP-4-PRM_DEL: Error expiring semi-static RP-mapping entry ([IP_address]/[dec], RP:[IP_address])

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%AUTORP-2-RADIXINIT: Error initializing the Auto-RP radix tree

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%AUTORP-4-RADIXINSERT: Error inserting a new entry into the RP-mapping radix tree

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
BAP Messages

The following are Point-to-Point Protocol (PPP) Bandwidth Allocation Protocol (BAP) error messages.

Error Message
%BAP-4-NOSTATE: [chars] [chars] [chars] in illegal state [dec]

Explanation  An internal software error has occurred.

Recommended Action  Contact your Cisco technical support representative and report the error message, the system version, and the router configuration. (Use the show version command to obtain the software version.)

Error Message
%BAP-4-WAVL: Failed to initialize AVL tree, BAP not started

Explanation  BAP will not be operational and will not be negotiated.

Recommended Action  Contact your Cisco technical support representative and report the error message, the system version, and the router configuration. (Use the show version command to obtain the software version.)

BCM3220 Messages

The following are cable modem MAC controlled interface error messages.

Error Message
%BCM3220-3-BADUNIT: Bad unit number [dec]

Explanation  An internal software error has occurred.

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

Error Message
%BCM3220-1-INITFAIL: Unit [dec], initialization timeout failure, csr[dec]=[hex]

Explanation  The hardware has failed to initialize correctly.

Recommended Action  Repair or replace the controller.

Error Message
%BCM3220-3-OWNERR: Unit [dec], buffer ownership error, pak = [hex]

Explanation  An Ethernet interface is malfunctioning, or an internal software error has occurred.

Recommended Action  Repair or replace the controller.
BGP Messages

The following are Border Gateway Protocol (BGP) error messages.

Error Message
%BGP-3-ADDOPT: Unable to add route for [chars] to radix trie

Explanation An addition to the radix trie could not be completed because an error has occurred.

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

Error Message
%BGP-5-ADJCHANGE: neighbor [IP_address] [chars] [chars]

Explanation A BGP neighbor has either come up or gone down. The message describes the change that has occurred. This message appears only if the log-neighbor-changes command is configured for the BGP process.

Recommended Action This informational message normally appears as routers and BGP neighbors go up or down. However, unexpected neighbor loss might indicate high error rates or high packet loss in the network and should be investigated.

Error Message
%BGP-6-ASPATH: [chars] AS path [chars] received from [IP_address]: [chars]

Explanation The remote BGP peer has sent in an update with an invalid AS path.

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

Error Message
%BGP-3-BADMASK: Attempt to install route for [IP_address] without valid mask in [chars]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%BGP-3-BADROUTEMAP: Bad parameters in the route-map [chars] applied for [chars]

Explanation The route map contains parameters that are incompatible with the intended operation.

Recommended Action Correct the route map definition.

Error Message
%BGP-3-BGP_INCONSISTENT: [IP_address] Inconsistent [chars]

Explanation An inconsistency in the data structures has been detected.

Recommended Action This is a rare situation and is the result of an internal problem. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%BGP-3-DELPATH: Attempted to delete path from an empty net for [chars]

Explanation A BGP path could not be deleted because an error was encountered.

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

Error Message
%BGP-3-DELROUTE: Unable to remove route for [chars] from radix trie

Explanation A deletion from the radix trie could not be completed because an error was encountered.

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

Error Message
%BGP-3-INSUFCHUNKS: Insufficient chunk pools for [chars], requested size [dec]

Explanation The size of the static chunk pools is not defined correctly.

Recommended Action Collect chunk and BGP summary information. This message probably indicates an internal problem. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%BGP-2-INSUFMEM: Insufficient memory for [chars] entry

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%BGP-3-MARTIAN_IP: [IP_address] Martian prefix [chars] in [chars]

Explanation  An invalid IP address has been detected.

Recommended Action  Verify the configuration, IP address, and prefix defined on the remote router and make any appropriate corrections.

Error Message
%BGP-3-MAXPATHS: Too many parallel paths for [IP_address][IP_netmask], maximum is [dec]

Explanation  The number of parallel paths has exceeded the configured limit.

Recommended Action  Increase the number of parallel paths allowed.

Error Message
%BGP-4-MAXPFX: No. of prefix received from [IP_address] (afi [dec]) reaches [dec], max [dec]

Explanation  The number of prefixes received from a neighbor has reached the warning limit.

Recommended Action  Verify the number of prefixes received from the neighbor and determine whether the limit should be increased.

Error Message
%BGP-3-MAXPFXEXCEED: No. of prefix received from [IP_address] (afi [dec]) exceeds limit [dec]

Explanation  The number of prefixes received from a neighbor has exceeded the configured limit.

Recommended Action  Verify the number of prefixes received from the neighbor and determine whether the limit should be increased.
Error Message

%BGP-3-NEGCOUNTER: Prefix-accepted counter negative for peer [IP_address], prefix [chars]

Explanation The counter value for accepted prefixes is incorrect and is less than zero.

Recommended Action This is a rare situation and is a result of an internal problem. Reset the session to correct the problem.

Error Message

%BGP-6-NEXTHOP: Invalid next hop ([IP_address]) received from [IP_address]: [chars]

Explanation The remote BGP peer has sent this peer a route with an illegal next hop. The given route was ignored.

Recommended Action No action is required.

Error Message

%BGP-3-NOBITFIELD: Could not allocate bitfield. Cannot open session to [chars]

Explanation The allocation of the neighbor index for this neighbor has failed because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%BGP-3-NOTIFICATION: [chars] neighbor [IP_address] [dec]/[dec] ([chars]) [dec] bytes [chars]

Explanation An error condition has been detected in the BGP session. A notification packet is being sent or received, and the session will be reset. This message appears only if the log-neighbor-changes command is configured for the BGP process.

Recommended Action This message represents an error in the session. Its origin should be investigated. If the error occurs periodically, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%BGP-3-RADIXINIT: Radix trie initialization failed

Explanation Initialization of the radix trie could not be accomplished because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%BGP-5-VERSION_WRAP: bgp version wrapped of [chars]

Explanation  The BGP table version has reached its maximum value and has wrapped around. The message describes this event.

Recommended Action  This message is informational. However, frequent occurrences of such an event might indicate high error rates or high packet loss in the network and should be investigated.

Error Message
%BGP-4-VPNV4NH_IF: Nexthop [IP_address] may not be reachable from neighbor [IP_address] - not a loopback

Explanation  A VPNv4 route is being sent to the IBGP neighbor indicated in the messages. The next hop is one of the directly connected physical interfaces. It is possible that the label for the address of the next hop is being removed in the MPLS cloud one hop too soon. Because the provider (P) routers do not store VPN information, they do not know where to forward packets that carry the BGP label. If the address is not available at the correct hop, it could break connectivity between VPN sites.

Recommended Action  Use loopback interfaces as the next hops for VPNv4 IBGP neighbors.

Error Message
%BGP-4-VPNV4NH_MASK: Nexthop [IP_address] may not be reachable from neighbor [IP_address] - not /32 mask

Explanation  A VPNv4 route is being sent to the IBGP neighbor. The address of the next hop is a loopback interface that does not have a /32 mask defined. OSPF is being used on this loopback interface, and the OSPF network type of this interface is LOOPBACK. OSPF advertises this IP address as a host route (with mask /32), regardless of what mask is configured. This advertising conflicts with TDP, which uses configured masks, so the TDP neighbors may not receive a tag for the route indicated in this error message. This condition could break connectivity between sites that belong to the same VPN.

Recommended Action  Configure the loopback that is being used as the next-hop loopback to use a 32-bit network mask (/32), or set the network type to point-to-point by entering the `ip ospf network point-to-point` command.
BIT Messages

The following are dynamic bitlist error messages.

Error Message

%BIT-4-OUTOF RANGE: bit [dec] is not in the expected range of [dec] to [dec]

Explanation  An invalid request was detected by the bit list subsystem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

BRI Messages

The following are ISDN Basic Rate Interface (BRI) error messages.

Error Message

%BRI-1-INITFAIL: Unit [dec], initialization timeout failure, csr[dec]=[hex]

Explanation  The hardware has failed to initialize correctly.

Recommended Action  Repair or replace the controller indicated in the error message.

Error Message

%BRI-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%BRI-4-NOSWITCH: Unit [dec], initialization timeout failure, csr[dec]=[hex]

Explanation  The ISDN leased line requires that an ISDN switch type be configured.

Recommended Action  Choose and configure a BRI switch type. If you are unsure of the switch type, choose any switch.
BRIMUX Messages

The following are Cisco AS5200 BRIMUX board error messages.

Error Message
%BRIMUX-3-BADBRIMUX: Slot [dec] [chars]

Explanation  A BRIMUX firmware problem may be present.

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

Error Message
%BRIMUX-1-BADCODE: Software error: [chars]

Explanation  An internal software error has occurred.

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

Error Message
%BRIMUX-3-BADDLACK: Slot [dec] BRIC, failed to acknowledge download data block [dec]

Explanation  A BRIMUX firmware problem may be present.

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

Error Message
%BRIMUX-3-BADDPM: Slot [dec] DPM, test failed at offset [hex], expect [hex], read [hex]

Explanation  A BRIMUX board hardware problem may be present.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%BRIMUX-3-BADULADDR: Slot [dec] BRIC, wrong upload address received [hex], requested [hex]

Explanation  A BRIMUX firmware problem may be present.

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

Error Message
%BRIMUX-3-BADULBLK: Slot [dec] BRIC, wrong block [dec] for data upload, expect [dec]

Explanation  A BRIMUX firmware problem may be present.

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

Error Message
%BRIMUX-3-BADULLEN: Slot [dec] BRIC, upload data length read [dec], truncate to [dec] bytes

Explanation  A BRIMUX firmware problem may be present.

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

Error Message
%BRIMUX-3-BADULREQ: Slot [dec] BRIC, failed to send upload data block [dec]

Explanation  A BRIMUX firmware problem may be present.

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

Error Message

Explanation  A state change has occurred on a B channel of the BRIMUX board.

Recommended Action  No action is required.
Error Message
%BRIMUX-4-HEARTBEAT: Slot [dec] BRIC, lost heartbeat for [dec] seconds

Explanation A BRIMUX board hardware or firmware problem may be present.

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

Error Message
%BRIMUX-5-PORTUPDOWN: BRI[dec] on slot [dec] BRIC, changed state to [chars]

Explanation A state change has occurred on a port on the BRIMUX board.

Recommended Action No action is required.

Error Message
%BRIMUX-5-UPDOWN: Slot [dec] BRIC, changed state to [chars]

Explanation A state change has occurred on the BRIMUX board.

Recommended Action No action is required.

BSC Messages

The following are Binary Synchronous Communications (BSC) protocol error messages.

Error Message
%BSC-3-BADLINESTATE: Line state Tx when receiving [chars] on line [chars]

Explanation An unexpected receive operation occurred during a transmission.

Recommended Action Verify that the line has been consistently defined in relation to the carrier. If a message report was sent, perform a hard stop and start the bisynchronous interface in question.

Error Message
%BSC-3-BADPEERTYPE: Peer [chars] is incorrect type

Explanation This message occurs only when BSC local acknowledgment is configured. It indicates that the serial interfaces that are using the BSTUN tunnel are configured incorrectly; that is, both interfaces have been configured as secondary.

Recommended Action Reconfigure the serial interfaces correctly so that they form a primary and secondary pair.
Error Message
%BSC-2-NOMEM: No buffers available on interface [chars].

Explanation Memory in the router has been exhausted.

Recommended Action Perform diagnostics on the router to locate the subsystem or interface responsible for consuming memory. The only method that will clear this situation is to reload the router.

BSTUN Messages

The following are block serial tunneling (BSTUN) error messages.

Error Message
%BSTUN-3-BADCONN: CONN: bad connection ([dec]), peer: [chars]

Explanation An internal software error has occurred. A packet was queued to the background process to establish an active connection, but the peer structure has not been initialized properly. This situation should never occur.

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

Error Message
%BSTUN-3-BADLENOP: [chars]: bad len or unknown op, op [dec], len [dec]

Explanation An internal software error has occurred. A BSTUN packet was received on the direct interface with a length of zero, which is an abnormal length.

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

Error Message
%BSTUN-3-BADMAGIC: [chars]: wrong magic, mine [hex], theirs [hex] ([dec])

Explanation An internal software error has occurred. The identifier from the received packet does not match the packet header information received from a peer tunnel.

Recommended Action Verify that the configuration is correct and that the peer is configured correctly and try again. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%BSTUN-3-BADPASSIVEOPEN: passive open from [IP_address](decimal) -> [decimal] failed

Explanation An internal software error has occurred. BSTUN received notice of an incoming connection, but the connection attempt failed and the peer returned a failure code. The remote peer could be unavailable or the configuration could be incorrect.

Recommended Action Verify that both the local and remote configurations are correct and try again. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%BSTUN-3-CONNILLSTATE: CONN: Peer [chars], illegal state [decimal]

Explanation An internal software error has occurred.

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

Error Message
%BSTUN-6-CONNOPENFAIL: CONN: peer [chars] open failed, [chars] [integer]

Explanation An attempt to connect to a remote outbound TCP BSTUN peer was not successful.

Recommended Action Verify that the remote peer is accessible from this router, that it is running software capable of supporting BSTUN, and that it is configured correctly.

Error Message
%BSTUN-4-DUPROUTE: Cannot define duplicate route on the same group

Explanation This route command is defined on another interface belonging to the same group. Duplicate routes cannot be defined for the same group.

Recommended Action Define a new group and verify that the route information for each BSTUN route is unique.
Error Message
%BSTUN-6-ERR.: [chars]: [chars]: [chars], op [hex], len [dec]

Explanation  An internal software error has occurred. The remote BSTUN partner has sent an error operation code indicating that it has detected an error on its receive processing. The sense codes are as follows:
- 0x81—The partner has received an invalid operation code. Verify that the right level of software is running to support the operation.
- 0x82—Data has been received for an unknown peer.

Recommended Action  If sense code 0x82 is received, verify that the head and tail routers are configured properly. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%BSTUN-3-IFNOTSETUP: Could not setup interface for protocol [chars]

Explanation  Even though BSTUN is configured on the interface, it could not start the interface to handle the specified protocol traffic.

Recommended Action  If this message appears while you are configuring BSTUN, check for other system errors. Possible problems include a lack of available memory in the router and a shutdown. If no obvious problem can be detected, record all the displayed values and any other BSTUN error messages, copy the error messages exactly as they appear on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%BSTUN-2-NOBUF: Interface [chars], no buffer available to [chars]

Explanation  A memory shortage existed at the time that the configuration command was issued. This condition is rare and, under normal conditions, is temporary.

Recommended Action  Reconfigure the BSTUN group. If memory shortages persist, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%BSTUN-3-NOGRPDEF: No bstun group defined on interface [chars]

Explanation  An action was taken that requires the previous definition of a BSTUN group number.

Recommended Action  Verify that the BSTUN definitions are complete, make any necessary corrections, and try again.
Error Message
%BSTUN-3-NOPEER: No peer configured to route frame with destination address [chars] (bstun group [dec])

Explanation A BSTUN route has not been configured for the frame being received. The destination address of the frame is indicated in the error message. If this message appears while you are debugging BSTUN, it indicates that no specific BSTUN route has been configured for the frames being received; the device address for those frames is listed in the packet debug trace.

Recommended Action You may choose to configure a BSTUN route or ignore this message.

Error Message
%BSTUN-6-OPENED: [chars]: peer [chars] opened, [previous state [chars]]

Explanation An attempt to connect to a remote peer has been either completed successfully or is in the process of being opened. This activity indicates that BSTUN is working as expected.

Recommended Action No action is required.

Error Message
%BSTUN-6-OPENING: CONN: opening peer [chars], [dec]

Explanation An attempt to connect to a remote peer has been either completed successfully or is in the process of being opened. This activity indicates that BSTUN is working as expected.

Recommended Action No action is required.

Error Message
%BSTUN-6-PASSIVEOPEN: passive open [IP_address]([dec]) -> [dec]

Explanation An attempt to connect to a remote peer has been either completed successfully or is in the process of being opened. This activity indicates that BSTUN is working as expected.

Recommended Action No action is required.

Error Message
%BSTUN-6-PEERSHUTDOWN: shutting down peer [chars] on [chars]

Explanation A connection to a remote peer is being shut down. This is typically the result of user intervention during a BSTUN reconfiguring or disabling process. This activity indicates that BSTUN is working as expected.

Recommended Action No action is required.
Error Message
%BSTUN-4-PEERSTATE: Peer [chars], wrong state [dec] ([dec])

Explanation  An internal software error has occurred.

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

Error Message
%BSTUN-6-PROCEXIT: Process terminating. Due to signal [dec]. Subcode [dec]. Address [hex].

Explanation  The BSTUN background process is terminating.

Recommended Action  If this message appears while you are disabling BSTUN, no action is required. Otherwise, record all the displayed values and any other BSTUN error messages, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%BSTUN-6-RECONNECT: PHDR: reconnect from peer [chars]

Explanation  A remote peer has reestablished a connection to this router as indicated in the error message.

Recommended Action  No action is required.

Error Message
%BSTUN-3-SENDPUNT: [chars]: sent [chars] to [chars]

Explanation  An internal software error has occurred.

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

Error Message
%BSTUN-4-SENDPUNNTCP: [chars]: sent [chars] to ([[int]])[IP_address]

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%BSTUN-6-TCPFINI: peer [chars] closed [previous state [chars]]

Explanation  A remote peer has closed a BSTUN connection with this router.

Recommended Action  Examine the remote router to determine why it closed the connection with the specified peer. The closing of the connection can be caused by normal events, such as reconfiguration.

Error Message
%BSTUN-6-TCPPEERSHUT: [chars] [chars], [IP_address]([dec])

Explanation  This router has closed a BSTUN connection with a remote peer.

Recommended Action  Examine this router to determine why it closed the connection with the remote peer. This action can be caused by normal events, such as reconfiguration.

Error Message
%BSTUN-3-UNKPROTOEV: Unknown protocol event [dec] on interface [chars]

Explanation  An event that was passed to the BSTUN layer for processing could not be decoded.

Recommended Action  Perform a hard restart on the indicated interface.

C1400_PCI Messages

The following are protocol control information (PCI) bus error messages for the Cisco 1400 platform.

Error Message
%C1400_PCI-3-BADADDR: c1400_little_endian_addr: Attempted conversion of invalid address ([hex])

Explanation  A software error occurred in trying to determine PCI device addressing.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%C1400_PCI-3-BADADDR: c1400_big_endian_addr: Attempted conversion of invalid
address ([hex])

Explanation  A software error occurred in trying to determine PCI device addressing.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%C1400_PCI-3-BADPCIRD: PCI Configuration Read Cycle Failed for bus [dec], Device
[dec], function [dec],
register [dec]

Explanation  The system could not read from the PCI Bus. It may be necessary to replace the board.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%C1400_PCI-3-BADPCIWR: PCI Configuration Write Failed for bus [dec], Device [dec],
function [dec],
register [dec]

Explanation  The device initialization code was unable to write to the PCI Bus. It may be necessary to replace the board.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%C1400_PCI-3-BIG_ENDIAN_ADDR: qspan_little_endian_addr: Address ([hex]) operation
is not supported

Explanation  Conversion of an address to an equivalent big endian address is not supported by the QSpan PCI device.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
C1600 Messages

The following are Cisco 1600 platform error messages.

Error Message
%C1400_PCI-3-LITTLE_ENDIAN_ADDR: qspan_little_endian_addr: Address ([hex])
operation is not supported

Explanation Conversion of an address to an equivalent little endian address is not supported by the QSpan PCI device.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%C1400_PCI-3-PCI_NOT_EXIST: PCI Bus bridge does not exist

Explanation The device initialization code was unable to locate the PCI Bus bridge. It may be necessary to replace the board.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

C1600 Messages

The following are Cisco 1600 platform error messages.

Error Message
%C1600-4-BADINTFC: Interface [dec], (0-1 Onboard interfaces 2=WIC)
Invalid interface (Unknown, Uninitialized or Bad Cookie value read)

Explanation The router is functional; however, there is an interface that the software does not recognize.

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

Error Message
%C1600-4-INTFCNOFLH: Unable to load images or communicate over interface

Explanation Access to the interface might have failed because of a transient network problem.

Recommended Action Retry the operation. If the problem persists, call your technical support representative for assistance.
C1700 Messages

The following are Cisco 1700 platform error messages.

**Error Message**

```
%C1700-3-BADIMAGE: The IOS image loaded supports voice. The platform you are running is not voice capable.
```

**Explanation** The voice-capable Cisco IOS software detects that it is running on a platform that does not support voice features.

**Recommended Action** Check the image and the platform. If you need to use voice features, you should get a Cisco 1750 router. If you do not need voice, you should load an image that does not include voice features.

**Error Message**

```
%C1700-3-BADPA: Invalid Port Adaptor type ([dec]) reported for mainboard
```

**Explanation** The virtual port adapter type derived from the main board type is not one of the supported types. It may be that this main board is a new main board type and the software release you are running does not support the new main board type.

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

**Error Message**

```
%C1700-3-NOCONFIG: Could not download startup configuration from the tftp server.
```

**Explanation** A startup configuration could not be downloaded from the TFTP server. The specified file might not be available, or the server might be unreachable.

**Recommended Action** Check the filename and availability on the server. Verify that the network is up and the TFTP server can be reached.

**Error Message**

```
%C1700-1-OVERTEMP: System detected OVERTEMPERATURE condition. Putting the system in Power save mode and going to rommon. Please resolve cooling problem and restart system!
```

**Explanation** The environmental monitor has detected a high-temperature condition.

**Recommended Action** Verify that the room temperature is low enough and that air flow to the card is not blocked. If this condition persists, the environmental monitor might shut down the system. Contact your Cisco technical support representative for assistance if necessary.
Error Message
%C1700-3-TDMMODIFUNKNOWN: TDM Module does not support WAN Interface module [hex] in slot [dec]

Explanation  The WAN interface card was not recognized by the TDM module. Internal connections required for this WAN interface card to function were not made.

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

Error Message
%C1700-5-WRITEMEM: NVRAM configuration is not supported.\n
Explanation  A startup configuration could not be stored in NVRAM. It is stored in the single-board computer.

Recommended Action  The configuration is automatically saved by the management application. You can also save the configuration by copying the running configuration file to a server using the FTP function.

C1700_EM Messages

The following are Cisco 1700 VPN module hardware accelerator for IP security error messages.

Error Message
%C1700_EM-1-ALIGN: Alignment failure on packet buffer: [hex]

Explanation  A software error has occurred. The VPN module driver detected that the buffer is not aligned correctly.

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

Error Message
%C1700_EM-3-BADBOOTSTATUS: VPN Module returned bad boot status: ([dec])

Explanation  A VPN module boot sequence error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C1700_EM-1-BADSEMAPHORE: VPN Module cannot lock semaphore sem=[dec]

Explanation The VPN module is not responding correctly.

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

Error Message
%C1700_EM-3-DOWNLOADFAIL: VPN Module firmware download failed: [chars]

Explanation An attempt to download firmware to the VPN module has failed.

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

Error Message
%C1700_EM-3-DSP_NOT_RESPONDING: VPN Module DSP is not responding.

Explanation The digital signal processor (DSP) portion of the ATM address for the VPN module might be incorrect.

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

Error Message
%C1700_EM-1-EM_MULTDEV: Multiple VPN Modules not supported, ([dec]) found

Explanation Multiple VPN modules are not supported in the current configuration.

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

Error Message
%C1700_EM-1-EM_PROC_ALIGN: VPN Module Command Processor alignment error: ([chars]=[hex])

Explanation An alignment error has occurred in the VPN module command processor.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C1700_EM-3-EM_PROC_ERR: VPN Module Command Processor error: ([chars])

Explanation A VPN module command processor error has occurred.

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

Error Message
%C1700_EM-1-EM_PROC_INIT: VPN Module Command Processor initialization failed: ([chars])

Explanation An attempt to initialize the VPN module command processor has failed.

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

Error Message
%C1700_EM-1-ERROR: [chars]

Explanation An error has occurred in an application using the VPN module.

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

Error Message
%C1700_EM-1-INITFAIL: Slot [dec]: [chars]

Explanation The VPN module driver could not be initialized at the specified point.

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

Error Message
%C1700_EM-1-MBX_BADSTATE: VPN Module CGX mailbox bad state: found=[hex], expect=[hex]

Explanation A state change has occurred, causing the VPN module CGX Library mailbox to become unstable.

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

%C1700_EM-3-MEMTESTFAIL: VPN Module failed its onboard memory test. Page [hex], Addr [hex], Wrote [hex], Read [hex]

Explanation   A memory test error has occurred in the VPN module.

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

Error Message

%C1700_EM-1-NOMEMORY: [chars] creation failed for slot [dec]

Explanation   The VPN module driver could not allocate memory for the specified data structure.

Recommended Action   Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration. If the problem is not resolved by applying these actions, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%C1700_EM-3-NVRAMFAIL: VPN Module could not read its own NVRAM configuration: ([dec])

Explanation   An NVRAM error has occurred, preventing the VPN module from being able to read its own NVRAM configuration.

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

Error Message

%C1700_EM-1-OWNER: [chars] packet buffer, pak=[hex]

Explanation   A software or hardware error has occurred. The VPN module driver has detected that the buffer ring is in an inconsistent and unrecoverable state.

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

Error Message

%C1700_EM-3-PROC_BADEVENT: VPN Module Command Processor got event: major=[dec], minor=[dec]

Explanation   An error has occurred in the VPN module command processor.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**C2600 Messages**

The following are Cisco 2600 platform error messages.

**Error Message**

%C1700_EM-6-SHUTDOWN: [chars] shutting down

**Explanation**  The specified VPN module is shutting down. It may have been physically removed.

**Recommended Action**  This is an informational message only. It occurs in normal operation.

**Error Message**

%C1700_EM-1-TOOBIG: [chars] received a packet with size [dec].

**Explanation**  A packet received from the specified peer exceeds the specified MTU size.

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

**C2600 Messages**

The following are Cisco 2600 platform error messages.

**Error Message**

%C2600-3-BADADDR: c2600_little_endian_addr: Attempted conversion of invalid address ([hex])

**Explanation**  A software error occurred during an attempt to determine PCI device addressing.

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

**Error Message**

%C2600-3-BADADDR2: c2600_big_endian_addr: Attempted conversion of invalid address ([hex])

**Explanation**  A software error occurred during an attempt to determine PCI device addressing.

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

%C2600-3-BADBAYDEV: get_pci_dev_num: Invalid bay ([dec]) or device number offset ([dec])

Explanation  A software error occurred during an attempt to determine PCI device addressing.

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

Error Message

%C2600-3-BADDEVNO: pas_get_device_subunit: Invalid PCI device number: [dec]

Explanation  A software error occurred during an attempt to determine PCI device addressing.

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

Error Message

%C2600-3-BADNV: Detected invalid NVRAM size: [dec] bytes

Explanation  The detected size of the NVRAM is not one of the supported sizes. The NVRAM may have failed.

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

Error Message

%C2600-3-BADPA: Invalid Port Adaptor type ([dec]) reported for mainboard

Explanation  The virtual port adapter type derived from the main board type is not one of the supported types. This main board may be a new type of main board that is not supported by the software release you are running.

Recommended Action  Verify that the installed main board is compatible with the release of Cisco IOS software you are running. If you cannot resolve the discrepancy, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C2600-3-BADPCIRD: PCI Configuration Read Cycle Failed for bus [dec], Device [dec], function [dec], register [dec]

Explanation  An attempt to read the PCI bus configuration has failed. The main board needs to be replaced.

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

Error Message
%C2600-3-BADPCIWR: PCI Configuration Write Cycle Failed for bus [dec], Device [dec], function [dec], register [dec]

Explanation  An attempt to write the PCI bus configuration has failed. The main board needs to be replaced.

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

Error Message
%C2600-3-NOMAC: Can’t allocate MAC address for interface [int]/[int]

Explanation  An attempt to allocate the MAC address for the specified interface has failed; all the available MAC addresses for the system have been allocated.

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

Error Message
%C2600-3-NVERASEFAIL: Failed to erase config due to internal error

Explanation  The password protection feature has failed to erase the configuration because of an internal error.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C2600-1-OVERTEMP: System detected OVERTEMPERATURE condition.
Putting the system in Power save mode and going to rommon.
Please resolve cooling problem and restart system!

Explanation  The environmental monitor has detected a high-temperature condition.

Recommended Action  Verify that the room temperature is not too high and that air flow to the card is not blocked. If this condition persists, the environmental monitor may shut down the system. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

C2600_MAINBOARD_ASYNC_PQUICC Messages

The following are MPC860 quad integrated communications controller error messages for the Cisco 2600 platform.

Error Message
%C2600_MAINBOARD_ASYNC_PQUICC-3-NOMEMORY: No memory for [chars] of unit [dec]

Explanation  Memory cannot be allocated to perform the function indicated in the message.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration. If the problem persists, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

C29ATM Messages

The following are error messages for the Catalyst 2900XL address table management module.

Error Message
%C29ATM-4-AT_DEBUG: [chars]: [chars] : [dec]

Explanation  A problem with the address table management subsystem has been detected.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C29ATM-4-AT_DEBUG_MAC: [chars]: [chars] : [enet]

Explanation A problem with the address table management subsystem has been detected.

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

Error Message
%C29ATM-4-AT_DEBUG_TB: [chars]: [chars] : [dec]

Explanation A problem with the address table management subsystem has been detected.

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

Error Message
%C29ATM-4-AT_VLAN_DEBUG: [chars]: [chars] : [dec]

Explanation A problem with the address table management subsystem has been detected.

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

Error Message
%C29ATM-4-BIG_CONTROL_FRAME: AAL5 discarded because it is too large to buffer: vpi = [dec], vci = [dec], size = [dec]

Explanation An AAL5 frame destined for Cisco IOS was discarded because it was too large to buffer.

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

Error Message
%C29ATM-4-IF_IDB: [chars]: [chars]

Explanation The ATM IDB for this interface could not be detected.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C29ATM-3-NO_CREATE_VCC: Cannot create VCC [chars].

Explanation  The module was unable to create a VCC for the specified service.

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

Error Message
%C29ATM-4-NOVCINFO: [chars] discarded because it is not associated with a VCD: vpi = [dec] vci = [dec]

Explanation  An OAM cell or an AAL5 frame was discarded because it was not associated with a VCD.

Recommended Action  Check the configuration of your ATM switch and make any necessary corrections.

Error Message
%C29ATM-3-OUT_BAD_VCD: The module attempted to transmit frame on a closed or non-existent VCD: vcd = [dec]

Explanation  The module attempted to transmit a frame on a closed or nonexistent VCD.

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

Error Message
%C29ATM-3-OUT_OF_VCD: Cannot create VCC for [chars], run out of VCD

Explanation  The module was unable to create a VCC for the specified service.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
C2KATM Messages

The following are Catalyst 2820 ATM module error messages.

Error Message
%C2KATM-4-BIG_CONTROL_FRAME: AAL5 discarded because it is too large to buffer: vpi = [dec], vci = [dec], size = [dec]

Explanation  An AAL5 frame destined for Cisco IOS was discarded because it was too large to buffer.

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

Error Message
%C2KATM-3-NO_CREATE_VCC: Cannot create VCC [chars].

Explanation  The module was not able to create a VCC for the specified service.

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

Error Message
%C2KATM-4-NOVCINFO: [chars] discarded because it is not associated with a VCD: vpi = [dec] vci = [dec]

Explanation  An Operation, Administration, and Maintenance (OAM) cell or an AAL5 frame was discarded because it was not associated with a VCD.

Recommended Action  Check the configuration of your ATM switch.

Error Message
%C2KATM-3-OUT_BAD_VCD: The module attempted to transmit frame on a closed or non-existent VCD: vcd = [dec]

Explanation  The module attempted to transmit a frame on a closed or nonexistent VCD.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C2KATM-3-OUT_OF_VCD: Cannot create VCC for [chars], no free VCDs

Explanation The module was unable to create a VCC for the specified service.

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

C3600 Messages

The following are Cisco 3600 platform error messages.

Error Message
%C3600-3-BADNV: Detected invalid NVRAM size: [dec] bytes

Explanation The detected size of NVRAM is not one of the supported sizes. The NVRAM may be bad.

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

Error Message
%C3600-3-BADPLAT: Unknown platform type

Explanation The Cisco IOS software image does not recognize the motherboard revision of this router. This situation could indicate either that a hardware failure has occurred or that the software needs to be upgraded to allow it to recognize newer hardware.

Recommended Action Verify that you are using a recommended revision of the Cisco IOS software for your hardware. Upgrade to a newer software release if necessary. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C3600-3-CHASSIS: Unknown chassis model.

Explanation Data stored in the midplane is bad or incomplete.

Recommended Action Contact your Cisco technical support representative for assistance in updating your system.
Error Message
%C3600-4-COOKIE: Corrupt or missing MAC address cookie using random base [enet]

Explanation  Data stored in the midplane is bad.

Recommended Action  Contact your Cisco technical support representative for assistance in updating your system.

Error Message
%C3600-4-MACBLKSIZE: Unknown MAC address block size.

Explanation  Data stored in the backplane is bad or incomplete.

Recommended Action  Contact your Cisco technical support representative for assistance in updating your system.

Error Message
%C3600-3-NOMAC: Can’t allocate MAC address for interface [int]/[int]

Explanation  A MAC address could not be allocated because of an incorrect slot and port combination that exceeds the maximum available hardware.

Recommended Action  Verify that the appropriate hardware is installed in the chassis and that the software configuration correctly reflects the slot and port placement.

Error Message
%C3600-3-NVERASEFAIL: Failed to erase config due to internal error

Explanation  The password protection feature has failed to erase the configuration because an internal error has occurred.

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

Error Message
%C3600-3-SLOTS: Number of slots in chassis is undefined.

Explanation  Data stored in the midplane is bad or incomplete.

Recommended Action  Contact your technical support representative for assistance in updating your system.
C4GWY_DSPRM Messages

Error Message
%C3600-4-VERSION_MISMATCH: Midplane data version mismatch.

Explanation  Data stored in the midplane is out of date and needs to be updated.

Recommended Action  Contact your technical support representative for assistance in updating your system.

C4GWY_DSPRM Messages

The following are digital signal processor (DSP) Resource Manager error messages.

Error Message
%C4GWY_DSPRM-5-DSPFAIL: DSP [dec] is in the failed state

Explanation  The digital signal processor for the specified address has failed because of excessive alarm indications.

Recommended Action  Replace the digital signal processor resource.

Error Message
%C4GWY_DSPRM-5-DSPNOTPRESENT: DSP [dec] is not present

Explanation  All four digital signal processor SIMMs are not available.

Recommended Action  Install all four hardware digital signal processor SIMMs and try again.

Error Message
%C4GWY_DSPRM-3-INSUFFICIENT: Insufficient DSP resources for timeslot [dec] on port [chars]

Explanation  The configuration requires more digital signal processor resources than are available.

Recommended Action  Change the configuration to specify fewer used time slots. Install additional digital signal processor resources to allow for more complex configurations.

Error Message
%C4GWY_DSPRM-5-KEEPALIVE: DSP [dec] in slot [chars], NOT RESPONDING - auto restart ([dec] times)

Explanation  The digital signal processor failed the background keepalive test.

Recommended Action  This message is informational. No action is required.
Error Message
%C4GWY_DSPRM-5-SETCODEC: Configured codec [dec] is not supported with this dsp image.

Explanation  The coder-decoder device is unable to negotiate handoffs because it is not supported with the installed digital signal processor image.

Recommended Action  Verify that the device and the Cisco IOS software image that is running in this router are compatible.

Error Message
%C4GWY_DSPRM-5-UPDOWN: DSP [dec], changed state to [chars]

Explanation  A state change has occurred in the digital signal processor resource.

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

C542 Messages

The following are voice driver for modular access routers error messages.

Error Message
%C542-3-ERROR_ANALYZE: Error analyzing the device in slot [dec].

Explanation  The port module in this slot could not be recognized.

Recommended Action  Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.

Error Message
%C542-3-ERROR_INIT_BLDR: [chars] Unable to download the Boot loader firmware, ret = [hex]

Explanation  An error occurred during an attempt to initialize the digital signal processor with the bootloader firmware.

Recommended Action  Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.

Error Message
%C542-3-ERROR_INIT_OVERLAY: [chars] Unable to download the Application overlay firmware. Status returned [hex]

Explanation  An error occurred during an attempt to initialize the digital signal processor with the application or overlay firmware.

Recommended Action  Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.
Error Message
%C542-1-ERROR_INTR: [chars], Error interrupt occurred type = [hex].

Explanation  The DMA engine cannot gain access to the PCI bus to read descriptors.

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

Error Message
%C542-1-INCORRECT_DSP_ID: VPM at slot [dec]: Incorrect [dec] DSP-ID passed by SPI.

Explanation  The DSP ID provided by the SPI for download is not valid.

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

Error Message
%C542-3-INCORRECT_ID: VPM in slot [dec]: PCI device not supported.

Explanation  An interface controller device did not report the correct PCI device ID.

Recommended Action  Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.

Error Message
%C542-3-INCORRECT_PMID: VPM at slot [dec]: Incorrect [dec] PM-ID device not supported.

Explanation  An interface controller device did not have the correct port module ID in its EEPROM cookie.

Recommended Action  Run the test pas eeprom command and set the correct port module ID. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C542-1-INSUFFICIENT_DSPS: VNM([dec]), cannot support all voice channels on VICs.

Explanation  More voice channels are configured on the VICs than can be supported by this network module. Some channels will be inoperative.

Recommended Action  This behavior is normal when a BRI VIC coexists on a VNM with an analog VIC or when a BRI VIC is on a VNM-1. If those conditions do not apply, check the part number on the VIC to determine whether it is supported in the version of Cisco IOS that is operational on the router. If you cannot resolve the discrepancy, contact your technical support representative for assistance.
Error Message
%C542-1-NO_DAUGHTER_CARD: VNM([dec]), vic card has an no known daughter cards

Explanation The Cisco IOS software does not recognize any of the VICs that are plugged into the port module.

Recommended Action Check the part number on the VIC and verify that it is supported in the version of Cisco IOS that is operational on the router. If you cannot resolve the discrepancy, contact your Cisco technical support representative for assistance.

Error Message
%C542-1-NOPCIMEMORY: VPM ([dec]/[dec]), PCI memory unavailable.

Explanation The router or access server could not allocate memory for the descriptors.

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

Error Message
%C542-1-NO_RING_DESCRIPITORS: No more ring descriptors available on [dec] slot.

Explanation The C542 driver cannot queue messages for the Xilinx DMA engine to transmit.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Reset the digital signal processors on this port module.

Error Message
%C542-1-TOOBIG: [chars], packet(size [dec]) too big.

Explanation A packet greater than the allowed maximum size of 256 bytes was received on this interface.

Recommended Action The system should recover. No action is required. If the problem recurs, it indicates an error that might be related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C542-1-UNKNOWN_VIC: VNM([dec]), vic daughter card has an unknown id of [hex]

Explanation The software does not recognize the type of VIC daughter card that is plugged into the port module.

Recommended Action Check the part number on the VIC to see if it is supported in the version of Cisco IOS software that is operational on the router. If you cannot resolve the discrepancy, contact your technical support representative for assistance.
The following are Voice over IP (VoIP) driver error messages.

**Error Message**

%C54X-3-ERROR_ANALYZE: Error analyzing the device in slot [dec].

*Explanation*  The system does not recognize the port module in the specified slot.

*Recommended Action*  Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.

**Error Message**

%C54X-3-ERROR_INIT_BLDR: [chars] Unable to download the Boot loader firmware, ret = [hex]

*Explanation*  An error occurred during an attempt to initialize the digital signal processor with the bootloader firmware.

*Recommended Action*  Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.

**Error Message**

%C54X-3-ERROR_INIT_OVERLAY: [chars] Unable to download the Application overlay firmware. Status returned [hex]

*Explanation*  An error occurred during an attempt to initialize the digital signal processor with the application or overlay firmware.

*Recommended Action*  Power down the device, reinsert the port module, and reboot. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%C54X-1-ERROR_INTR: [chars], Error interrupt occurred type = [hex].

*Explanation*  The DMA engine cannot gain access to the PCI bus to read descriptors.

*Recommended Action*  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C54X-1-INCORRECT_DSP_ID: VPM at slot [dec]: Incorrect [dec] DSP-ID passed by SPI.

Explanation The digital signal processor ID provided by the SPI for download is not valid.

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

Error Message
%C54X-3-INCORRECT_ID: VPM in slot [dec]: PCI device not supported.

Explanation An interface controller device did not report the correct PCI device ID.

Recommended Action Power down the device, reinsert the port module, and reboot. If this message recurs, contact your technical support representative for assistance.

Error Message
%C54X-3-INCORRECT_PMID: VPM at slot [dec]: Incorrect [dec] PM-ID device not supported.

Explanation An interface controller device does not have the correct port module ID in its EEPROM cookie.

Recommended Action Run the test pas eeprom command and set the correct port module ID. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C54X-1-INVALID_CONFIGURATION: vpm([dec]), vic cards has an invalid configuration.

Explanation The software has detected more VIC interface ports than can be supported on this port module.

Recommended Action Check the part number on the VIC and verify that it is supported in the version of Cisco IOS software that is operational on the router. If you cannot resolve the discrepancy, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C54X-1-NO_DAUGHTER_CARD: vpm([dec]), vic card has no known daughter cards

Explanation The software does not recognize any of the VICs that are plugged into the port module.

Recommended Action Check the part number on the VIC and verify that it is supported in the version of Cisco IOS software that is operational on the router. If you cannot resolve the discrepancy, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%C54X-1-NOMEMORY: VPM ([dec]/[dec]), memory unavailable.

Explanation The router or access server could not allocate memory for the descriptors.

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

Error Message
%C54X-1-NOPCIMEMORY: VPM ([dec]/[dec]), PCI memory unavailable.

Explanation The router or access server could not allocate memory for the descriptors.

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

Error Message
%C54X-1-NO_RING_DESCRIPTRORS: No more ring descriptors available on [dec] slot.

Explanation The VoIP digital signal processor driver cannot queue messages for the Xilinx DMA engine to transmit.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Reset the digital signal processors on this port module.

Error Message
%C54X-1-TOOBIG: [chars], packet(size [dec]) too big.

Explanation A packet greater than the allowed maximum size of 256 bytes has been received on this interface.

Recommended Action The system should recover. No action is required. If the problem recurs, it indicates an error that might be related to data traffic patterns. If you are unable to resolve the error, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C54X-1-UNKNOWN_VIC: vpm([dec]), vic daughter card has an unknown id of [hex]

Explanation The software does not recognize the type of VIC daughter card that is plugged into the port module.

Recommended Action Check the part number on the VIC to verify that it is supported in the version of Cisco IOS software that is operational on the router. If you cannot resolve the discrepancy, contact your technical support representative for assistance.
C54x Messages

The following are Voice over IP (VoIP) digital signal processor (DSP) driver error messages.

Error Message
%C54x-1-NO_RING_DESCRIPTORS: No more ring descriptors available on [dec] slot.

   Explanation   The VoIP digital signal processor driver cannot queue messages for the DMA engine to transmit.

   Recommended Action   Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Reset the digital signal processors on this port module.

Error Message
%C54x-1-TOOBIG: [chars], packet(size [dec]) too big.

   Explanation   A packet greater than the allowed maximum of 256 bytes has been received on this interface.

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

C5RSP Messages

The following are Cisco Catalyst 5000 platform error messages.

Error Message
%C5RSP-6-BRIDGE_AFU: vlan [dec] could/could not be configured for bridging

   Explanation   A VLAN could not be reset with the proper bridging information.

   Recommended Action   Try to resolve this problem by configuring the VLAN with bridging. If that does not work, try configuring the VLAN without bridging.

Error Message
%C5RSP-3-C5_BADIPC: bad message received from the NMP

   Explanation   An unsolicited in-band IPC message was received by the router from the NMP.

   Recommended Action   No action is required.
Error Message
%C5RSP-3-C5IP_SLOTFAIL: can’t get Catalyst 5000 Slot number of router

Explanation  An attempt by the RSP to query the C5IP for the slot it is plugged into has failed.

Recommended Action  Reset the router from the NMP console. If the problem persists, contact your Cisco technical support representative for replacement of the C5IP line card.

Error Message
%C5RSP-3-C5_MACADRFAIL: can’t get C5 Line Card Mac Addr

Explanation  An attempt by the RSP to query the C5IP for VLAN 0 IP address has failed.

Recommended Action  Reset the router from the NMP console. If problems persist, complete a return materials authorization for the router or the Catalyst 5000 switch. Follow the instructions for returning the equipment.

Error Message
%C5RSP-3-C5_NMPMACADRFAIL: can’t get NMP Mac Addr

Explanation  An attempt by the RSP to query the C5IP for VLAN 0 MAC address has failed.

Recommended Action  Reset the router from the NMP console. If problems persist, contact your Cisco technical support representative to arrange for replacement.

Error Message
%C5RSP-3-C5_SAGE0FAIL: Length error occurred on dma channel 0

Explanation  A hardware error has occurred on DMA channel 0.

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

Error Message
%C5RSP-3-C5_SAGE1FAIL: Length error occurred on dma channel 1

Explanation  A hardware error has occurred on DMA channel 1.

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

Error Message
%C5RSP-3-CANT_CREATE_VLAN: vlan [dec] can not be created. media not supported

Explanation  An attempt to create a VLAN of media that are not supported has failed.

Recommended Action  Configure the VLAN with a different media type.
**Error Message**

%C5RSP-3-INVALID_LOVE_LETTER: Invalid loveletter type, [dec], sent by c5ip

**Explanation**  
Cisco IOS software is receiving erroneous messages from the C5IP controller.

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

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**Error Message**

%C5RSP-3-MAXVLAN_EXCEEDED: can’t configure more than 256 VLANS

**Explanation**  
An attempt to create more than the maximum allowable number of VLANs has failed. A maximum of 256 VLANs is supported.

**Recommended Action**  
Delete unused VLANS before attempting to configure new ones.

---

**Error Message**

%C5RSP-3-NMP_DELETE_VLAN: having problems deleting vlan [dec] on the NMP

**Explanation**  
An attempt to delete a VLAN has failed.

**Recommended Action**  
Check the state of VLAN 0. Check the state of the C5IP by looking at the front-panel LED. Check the state of the NMP. Reset the router.

---

**Error Message**

%C5RSP-3-NMP_INIT_FAIL: can’t talk to NMP during initialization

**Explanation**  
An attempt to initialize a VLAN has failed.

**Recommended Action**  
Check the state of VLAN 0. Check the state of the C5IP by looking at the front-panel LED. Check the state of the NMP. Reset the router.

---

**Error Message**

%C5RSP-3-NMP_PROG_FAIL: NMP won’t allow vlan [dec] configuration

**Explanation**  
An attempt to create a VLAN has failed.

**Recommended Action**  
Check the state of VLAN 0. Check the state of the C5IP by looking at the front-panel LED. Check the state of the NMP. Reset the router.
**Error Message**

%C5RSP-6-NOSWIDB: vlan [dec] missing IDB

*Explanation*  An internal data structure of the VLAN is missing.

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

**Error Message**

%C5RSP-3-RSM_NMP_BRIDGE_INVALID: NMP returned invalid bridge id [dec] for [dec]

*Explanation*  The NMP has returned an invalid bridge ID to the RSM.

*Recommended Action*  Verify that the VLAN between the token ring and the bridge relay function on the RSM is configured correctly on the NMP.

**Error Message**

%C5RSP-3-RSM_NMP_CONFIG_MISMATCH: RSM NMP mismatch in config for [dec], RSM [dec], NMP [dec]

*Explanation*  A discrepancy between the NMP and the RSM has been detected in the configuration for the specified VLAN.

*Recommended Action*  Verify that the parameters for this VLAN are defined the same on the NMP and on the RSM.

**Error Message**

%C5RSP-3-UNKNOWN_NMP_PROG: unknown timer for NMP programming

*Explanation*  An unknown timer event has expired.

*Recommended Action*  This message is informational. No action is required.

**Error Message**

%C5RSP-6-VLAN_INFO_MISSING: vlan [dec] info errant. something very wrong

*Explanation*  Internal information about the VLAN is missing.

*Recommended Action*  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
C6KENV Messages

The following are Cisco Catalyst 6000 environmental system error messages.

**Error Message**  
%C6KENV-4-CLOCKFAILED: clock [dec] failed

**Explanation**  The clock indicated in the error message has failed. The system will continue to operate, using the redundant clock.

**Recommended Action**  Replace the failed clock.

**Error Message**  
%C6KENV-0-CLOCKMAJFAILED: too many clocks failed to continue system operation

**Explanation**  The system requires at least one clock to operate. No clocks are operational, so no packets can be forwarded.

**Recommended Action**  Replace the clocks, backplane, or chassis.

**Error Message**  
%C6KENV-2-CLOCKMAJRECOVERED: enough clocks operational to continue system operation

**Explanation**  The system can continue operating using the recovered clock.

**Recommended Action**  No action is required.

**Error Message**  
%C6KENV-4-CLOCKOK: clock [dec] operational

**Explanation**  A clock that had previously failed has declared itself operational.

**Recommended Action**  No action is required.

**Error Message**  
%C6KENV-4-FANTRAYFAILED: fan tray failed

**Explanation**  One or more fans in the system fan tray have failed. Although this is a minor alarm, system components could overheat and be shut down.

**Recommended Action**  Replace the system fan tray as soon as possible.

**Error Message**  
%C6KENV-4-FANTRAYOK: fan tray OK

**Explanation**  All fans in the fan tray are operating.

**Recommended Action**  This message is informational. No action is required.
Error Message

%C6KENV-2-MAJORTEMPALARM: [chars] has exceeded allowed operating temperature range.

Explanation The indicated component will be powered off. For shared components, the system must be powered off.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%C6KENV-4-MAJORTEMPALARMRECOVER: [chars] has returned to allowed operating temperature range.

Explanation The indicated component has returned to the allowed temperature range, so the scheduled shutdown is canceled, and the component will continue operating.

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

Error Message

%C6KENV-4-MINORTEMPALARM: [chars] has exceeded normal operating temperature range.

Explanation The normal operating temperature range has been exceeded. This message may indicate a trend for the component, and also a trend for other components in the system.

Recommended Action Inspect the indicated component closely to determine why it is operating out of normal operating temperature range and determine whether it will eventually exceed the allowed operating temperature range. Verify that air flow to the device is not blocked and that the fan is operational.

Error Message

%C6KENV-4-MINORTEMPALARMRECOVER: [chars] has returned to normal operating temperature range.

Explanation The system has returned to normal operating condition from a previous high-temperature range.

Recommended Action No action is required.

Error Message

%C6KENV-4-PSFANFAILED: the fan in power supply [dec] has failed

Explanation The fan in the indicated power supply has failed. This condition could lead to the overheating and shutdown of the power supply.

Recommended Action Replace the power supply as soon as possible.
Error Message
%C6KENV-4-PSFANOK: the fan in power supply [dec] is OK

Explanation  The fan in the indicated power supply is operating as expected and within normal temperature ranges.

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

Error Message
%C6KENV-2-SHUTDOWN: shutdown [chars] now because of [chars].

Explanation  The indicated component is shut down.

Recommended Action  Replace the component as soon as possible.

Error Message
%C6KENV-2-SHUTDOWN_CANCELLED: shutdown for [chars] cancelled

Explanation  The situation that had caused the shutdown to be scheduled has been corrected. The shutdown has been canceled.

Recommended Action  No action is required.

Error Message
%C6KENV-1-SHUTDOWN_DISABLED: need to shutdown [chars] now but shutdown action is disabled!

Explanation  Automatic shutdown is disabled on this device; the system could not shut down the indicated component.

Recommended Action  Manually shut down or remove the indicated component immediately.

Error Message
%C6KENV-2-SHUTDOWN_SCHEDULED: shutdown for [chars] scheduled in [dec] seconds

Explanation  A major alarm condition will be corrected by shutting down the affected component.

Recommended Action  Replace the component as soon as possible.

Error Message
%C6KENV-4-VTTFAILED: VTT [dec] failed

Explanation  The indicated VTT has failed.

Recommended Action  Replace the indicated VTT or the chassis as soon as possible.
Error Message
%C6KENV-0-VTTMAJFAILED: Too many VTT failures to continue system operation

Explanation The Cisco Catalyst 6000 backplane data bus cannot operate without proper termination provided by the VTTs.

Recommended Action Replace the failed VTTs.

Error Message
%C6KENV-2-VTTMAJRECOVERED: enough VTTs operational to continue system operation

Explanation Previously failed VTTs have begun operating again.

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

Error Message
%C6KENV-4-VTTOK: VTT [dec] operational

Explanation The indicated VTT is operational.

Recommended Action No action is required.

C6KPWR Messages

The following are Cisco Catalyst 6000 power control system error messages.

Error Message
%C6KPWR-4-DISABLED: power to module in slot [dec] set [chars]

Explanation The module in the indicated slot was powered off for the reason stated in the error message.

Recommended Action Recovery depends on the indicated reason. Using the information provided in the error message, troubleshoot and resolve the power problem. If necessary, replace defective components.

Error Message
%C6KPWR-4-ENABLED: power to module in slot [dec] set on

Explanation The module in the indicated slot was powered up.

Recommended Action This message is informational. No action is required.
C6MSFC Messages

The following are C6MSFC (Draco) error messages.

**Error Message**
%C6MSFC-4-BADFLASH: Unsupported flash type in the bootflash - [chars].

**Explanation**  The Flash chip in the Flash SIMM is not supported by the platform.

**Recommended Action**  Contact your Cisco technical support representative for assistance in updating your system.

**Error Message**
%C6MSFC-3-CHASSIS: Unknown chassis model.

**Explanation**  The data stored in the CPU ID PROM is bad or incomplete.

**Recommended Action**  Contact your Cisco technical support representative for assistance in updating your system.

**Error Message**
%C6MSFC-3-CONFIG: Recommended port adapter configuration exceeded

**Explanation**  The number of port adapters configured is greater than the number supported for this system.

**Recommended Action**  Verify that you are using the correct port adapters, check your system requirements, and correct the configuration.

**Error Message**
%C6MSFC-4-COOKIE: Corrupt or missing MAC address cookie using random base [enet]

**Explanation**  The MAC address could not be detected. It may have been corrupted or be missing.

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

**Error Message**
%C6MSFC-3-IONOT0: IO card discover in non-zero slot [dec]

**Explanation**  An I/O card has been detected in the nonzero slot indicated in the error message.

**Recommended Action**  Verify that the card is in the correct slot and that the configuration is correct. Try the operation again.
C6SUP Messages

Error Message
%C6MSFC-4-MACBLKSIZE: Unknown MAC address block size.

Explanation The data stored in the CPU ID PROM is bad or incomplete.

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

Error Message
%C6MSFC-3-NOCPUVER: Invalid CPU Revision [dec].

Explanation The CPU version could not be verified.

Recommended Action The system may need to be upgraded. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%C6MSFC-3-NOMAC: Can’t allocate MAC address for interface [int]/[int]

Explanation The MAC address for the interface indicated in the message could not be allocated.

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

C6SUP Messages

The following are C6SUP-specific error messages.

Error Message
%C6SUP-3-NOVLANMAC: Can’t allocate MAC address for VLAN interface [int]

Explanation The allocation of the MAC address has failed because the VLAN number is outside the range supported by the chassis.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
C7200_TDM Messages

The following are Cisco 7200 midplane TDM bus error messages.

Error Message

%C7200_TDM-3-TDM_CLOSE: MT90820 Midplane Close connection failed - STi[dec], CHi[dec], STo[dec], CHo[dec]

Explanation An attempt to disable the midplane TDM connection has failed.

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

Error Message

%C7200_TDM-3-TDM_INV_CONN_REQ: Upper Layer made invalid TDM request - STo[dec], CHo[dec]

Explanation An invalid request to use the TDM midplane has been made.

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

Error Message

%C7200_TDM-3-TDM_INV_DISC_REQ: Upper Layer made invalid TDM request - STi[dec], CHo[dec]

Explanation An invalid request to use the TDM midplane has been made.

Recommended Action No action is required.

Error Message

%C7200_TDM-3-TDM_OPEN: MT90820 Midplane Open connection failed - STi[dec], CHi[dec], STo[dec], CHo[dec]

Explanation An attempt to open a midplane TDM connection has failed.

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

CAIM Messages

The following are Compression Advanced Interface Module (CAIM) error messages.

Error Message

%CAIM-1-ELMERREV: AIM in slot [int] not supported by this HW revision.

Explanation The revision level of the C2600 Elmer PLD does not support Compression AIM.

Recommended Action The C2600 Elmer PLD needs to be reprogrammed to a later revision. Refer to Cisco.com release notes for the Cisco C2600 and Compression AIM for an explanation of how to reprogram the PLD.
Error Message

%CAIM-1-HIFNERR: Caim [int]: Hifn 9711 Errors reported: 9711 Status [hex] DMA status [hex]

Explanation  The specified Compression AIM reported a Hifn9711 error.

Recommended Action  This is an indication of a serious malfunction of the Compression AIM or of the system bus. The Compression AIM should be replaced.

Error Message

%CAIM-1-HIFNREV: Compression AIM type in slot [int] is not supported by this platform.

Explanation  The Compression AIM that is installed is not supported by this platform.

Recommended Action  Power off and replace the Compression AIM card.

Error Message

%CAIM-1-INITFAIL: CAIM [dec]: Initialization failed at [chars]

Explanation  The Compression AIM device would not reset properly. This behavior indicates a Compression AIM hardware failure.

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

Error Message

%CAIM-1-INVELMT: Invalid CAIM element: [dec]

Explanation  The Compression AIM element number specified in the command is not valid.

Recommended Action  Compression AIM element numbers range from 0 to one less than the number of Compression AIMS possible in your system. Verify the number of Compression AIMS present in your system.

Error Message

%CAIM-1-NODEV: AIM slot [dec]: Could not locate Compression AIM; found PCI vendor id [hex] instead

Explanation  The AIM ID PROM indicates that a Compression AIM is present but the PCI vendor or device ID was not the one that was expected for a Compression AIM.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CAIM-1-NOMEMORY: CAIM [dec]: Memory allocation failure; could not allocate [chars]

Explanation   An attempt to allocate memory for the specified Compression AIM has failed. More RAM may be required to execute this image.

Recommended Action   Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%CAIM-1-NOSUCH: No such CAIM element: [dec]

Explanation   The Compression AIM element number specified is not present in the system.

Recommended Action   Compression AIM element numbers range from 0 to one less than the number of Compression AIMs present in your system. Verify the number and presence of Compression AIMs in your system.

Error Message
%CAIM-1-PCIABT: Caim [int]: PCI Abort reported: status [hex]

Explanation   The specified Compression AIM has reported a bus error (PCI Abort).

Recommended Action   This is an indication of a serious malfunction of the Compression AIM or of the system bus. The Compression AIM should be replaced. A second possible explanation is that there is a mismatch in the configured compression algorithm on either side of a serial link. Such a mismatch can also give rise to PCI Abort problems. The recommended action in such cases is to configure matching compression algorithms on either side of the link and then to reboot the router which experienced the PCI Abort.

Error Message
%CAIM-6-SHUTDOWN: [chars] shutting down

Explanation   The specified Compression AIM is shutting down. It may have been physically removed. This message also occurs when the clear aim command is used.

Recommended Action   This is an informational message only and occurs in normal operation. No action is required.

Error Message
%CAIM-6-STARTUP: [chars] starting up

Explanation   The specified Compression AIM has initialized successfully.

Recommended Action   This is an informational message only and occurs in normal operation. No action is required.
CALL_CONTROL Messages

Error Message

%CAIM-1-UNEXPINT: Unexpected AIM Interrupt

**Explanation**  The system has received an AIM interrupt from an unknown AIM device. There is no recognizable AIM installed in the system, yet the AIM interrupt was received.

**Recommended Action**  If there is a Compression AIM unit installed in the Cisco C2600, then it is defective and must be replaced. If there is some other AIM installed in the Cisco C2600, it must be removed. If there is no AIM installed, then the Cisco C2600 unit is defective and must be replaced.

CALL_CONTROL Messages

The following are network call control error messages.

Error Message

%CALL_CONTROL-6-APP_NOT_EXIST: The requested application does not exist any more. The event for the callid \[dec\] is being discarded.

**Explanation**  The event points to a session application that does not exist any more. The event is being discarded.

**Recommended Action**  No action is required.

Error Message

%CALL_CONTROL-6-APP_NOT_FOUND: Application \[chars\] in dial-peer \[dec\] not found. Handing callid \[dec\] to default app.

**Explanation**  The inbound dial peer points to a session application that is not registered. The call is being handed to the default application.

**Recommended Action**  Reconfigure the dial peer and assign it a valid application name.

Error Message

%CALL_CONTROL-6-CALL_LOOP: The incoming call has a global identifier already present in the list of currently handled calls. It is being refused.

**Explanation**  The incoming call has a global identifier that is already present in the list of currently handled calls. A global identifier can be used by only one call at a time.

**Recommended Action**  Check your configuration. The call may be misdirected.

Error Message

%CALL_CONTROL-6-MAX_CONNECTIONS: Maximum number of connections reached for dial-peer \[dec\]

**Explanation**  The dial peer in question has reached its maximum number of configured connections. No more calls will be taken on this dial peer.

**Recommended Action**  No action is required; however, to increase the number of connections allowed to this dial peer, you can adjust the maximum connections configuration setting while in dial-peer configuration mode.
Error Message

%CALL_CONTROL-3-NORAWMSG: no free raw msg structure available from [chars] for signaling message

Explanation  There were no raw message structures remaining in the system pools to alert the router of a voice or signaling event.

Recommended Action  Verify that the voice port for which the event was reported is still operational. If the port is not operational, clear the voice port.

Error Message

%CALL_CONTROL-6-NUMBERING_TYPE_NO_MATCH: The called number numbering type did not matchThe event for the callid [dec] is being discarded.

Explanation  The event points to a session application that no longer exists. The event is being discarded.

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

CALL_MGMT Messages

The following are call management subsystem error messages.

Error Message

%CALL_MGMT-4-CALL_DISC: [chars]

Explanation  The specific message text is supplied by the call management software. This indicates that a call record is missing from the active call list.

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

Error Message

%CALL_MGMT-1-CALL_LIST: [chars]

Explanation  The specific message text is supplied by the call management software. This indicates that internal data was corrupted as a result of a software error.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.
CALLPROG Messages

Error Message
%CALL_MGMT-1-CPM_Q_POOL: [chars]

Explanation  The specific message text is supplied by the call management software; it indicates a condition of memory exhaustion.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%CALL_MGMT-1-INITSYS: [chars]

Explanation  The specific message text is supplied by the call management software. This indicates an initialization failure. When this occurs, the call management subsystem is not operational.

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

CALLPROG Messages

The following are error messages for the call progress notification subsystem.

Error Message
%CALLPROG-3-API_INIT: api front init failed for [chars]

Explanation  An attempt to initialize call progress notification support structures for APIs has failed.

Recommended Action  The system is running low on available memory. Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%CALLPROG-3-API_USE: no free front-end q elt’s; dropping api call info (func=[dec])

Explanation  The system was unable to get a free element from the front end queue.

Recommended Action  The platform requires additional free elements in order to function properly. Stop using call progress notification applications. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
CALLRECORD Messages

The following are Modem Call Record error messages.

Error Message
%CALLRECORD-3-MCOM_TERSE_CALL_FAILED_REC: [chars]

Explanation An attempt to write a terse Mcom call record has failed.

Recommended Action No action is required.

Error Message
%CALLRECORD-3-MCOM_TERSE_CALL_REC: [chars]

Explanation A terse Mcom call record was written successfully.

Recommended Action No action is required.

Error Message
%CALLRECORD-6-MICA_TERSE_CALL_FAILED_REC: [chars]

Explanation An attempt to write a terse MICA call record has failed.

Recommended Action No action is required.

Error Message
%CALLRECORD-6-MICA_TERSE_CALL_REC: [chars]

Explanation A terse MICA call record was written.

Recommended Action No action is required.

Error Message
%CALLRECORD-3-MODEM_CALL_REC_ERROR: [chars]

Explanation The generated record has exceeded the SYSLOG capacity.

Recommended Action No action is required.
CALLTRKR Messages

The following are Call Tracker subsystem error messages.

Error Message
%CALLTRKR-3-CALL_REC_ERROR: [chars]

Explanation The generated record has exceeded the SYSLOG capacity.

Recommended Action No action is required.

Error Message
%CALLTRKR-6-CALL_RECORD: [chars]

Explanation A terse Call Tracker call record was written.

Recommended Action No action is required.

Error Message
%CALLTRKR-6-MODEM_CALL_REC: [chars]

Explanation A modem verbose Call Tracker call record has occurred.

Recommended Action No action is required.

Error Message
%CALLTRKR-6-MODEM_INFO_CALL_REC: [chars]

Explanation A modem information verbose Call Tracker call record has occurred.

Recommended Action No action is required.

Error Message
%CALLTRKR-6-MODEM_LINE_CALL_REC: [chars]

Explanation A modem line verbose Call Tracker call record has occurred.

Recommended Action No action is required.

Error Message
%CALLTRKR-6-MODEM_NEG_CALL_REC: [chars]

Explanation A modem negotiation verbose Call Tracker call record has occurred.

Recommended Action No action is required.
Error Message
%CALLTRKR-3-NO_MEM: Memory allocation failed for CT [chars] ([dec] bytes)

Explanation  Call Tracker could not allocate a new record because no free memory was available.

Recommended Action  Disable Call Tracker using the no calltracker enable command. Run the show memory command to find out where memory has been allocated. Adjust system activity and resources as necessary.

Error Message
%CALLTRKR-3-PRINT_BUFFER: calltrkr cli print buffer [chars]

Explanation  The Call Tracker command-line interface internal print buffer has reached overflow capacity.

Recommended Action  Stop using Call Tracker show commands. Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CALLTRKR-3-PROC: can’t spawn [chars]

Explanation  The Call Tracker process could not be started.

Recommended Action  Disable Call Tracker using the no calltracker enable command. Enable it and try the process again.

Error Message
%CALLTRKR-3-TBL_INIT: Init of CT’s [chars] table failed; CT unusable

Explanation  The Call Tracker record table could not be initialized.

Recommended Action  Disable Call Tracker using the no calltracker enable command. Enable it and try the operation again.

CARRIER Messages

The following are DFC carrier error messages.

Error Message
%CARRIER-2-CT3_8PRI_MIX: Cannot mix 8PRI and CT3 DFC in chassis, do not power up invalid card in slot [dec]

Explanation  The user has put 8PRI and CT3 DFCs in the same chassis.

Recommended Action  These card types cannot be mixed. Remove the extra 8PRI or CT3 DFC.
Error Message
%CARRIER-3-DFC_INIT_ALREADY: DFC is already initialized - DFC [dec]

Explanation  The DFC is already initialized; there is no need to initialize it again.

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

Error Message
%CARRIER-3-DFC_INIT_FAIL: DFC initialization is failed - DFC [dec]

Explanation  DFC initialization has failed.

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

Error Message
%CARRIER-3-DFC_POWER_INT: DFC Power Changed - DFC [dec]

Explanation  Power is fluctuating on the DFC.

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

Error Message
%CARRIER-3-INVALID_DFC: Invalid DFC - DFC [dec] type [dec]

Explanation  The DFC has an invalid board ID or board type.

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

Error Message
%CARRIER-3-NO_DFC: DFC is not present - DFC [dec]

Explanation  The DFC is not present in the carrier card.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CARRIER-3-PLATFORM_DFC: DFC Carrier Platform Init Failed - Slot [dec]

Explanation  Initialization of the DFC carrier platform has failed.

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

Error Message
%CARRIER-3-POWER_DFC: DFC Power-On Failed - DFC [dec]

Explanation  An attempt to power on the DFC has failed.

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

Error Message
%CARRIER-3-RESET_DFC: DFC Reset Failed - DFC [dec]

Explanation  The DFC reset failed during the online removal process.

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

Error Message
%CARRIER-2-T1_E1_MIX: Cannot mix T1 and E1 8PRI DFC cards in chassis, do not power up invalid card in slot [dec]\n
Explanation  T1 and E1 8PRI DFCs are present in the same chassis.

Recommended Action  These card types cannot be mixed in the same system. Remove the extra T1 or E1 8PRI DFC.

Error Message
%CARRIER-2-THREE_NP108_NOT_PRESENT: 3 NP108s were not found on Tetryl card, [dec] detected.

Explanation  Tetryl requires 3 NP108 cards to be present.

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

Error Message
%CARRIER-2-TOOMANY_8PRI: Too many 8PRI DFC cards, do not power up invalid card in slot [dec]\n
Explanation Too many 8PRI DFCs are installed in the chassis.

Recommended Action Remove the extra 8PRI DFC.

Error Message
%CARRIER-2-TOOMANY_CT3: Too many CT3 DFC cards, do not power up invalid card in slot [dec]\n
Explanation Too many CT3 DFCs are installed in the chassis.

Recommended Action Remove the extra CT3 DFC or the 8PRI DFC that is causing the problem.

CASA Messages

The following are Cisco Appliance and Services Architecture (CASA) error messages.

Error Message
%CASA-4-BADMSG: Message parsing error: [chars]\n
Explanation An incoming packet could not be parsed.

Recommended Action If this message is occurring repeatedly, enable debugging by entering the debug ip casa error command and record the output. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CASA-3-BADVER: Incoming packet is CASA v[dec], this router is v[dec]\n
Explanation A packet was received for the wrong version of CASA.

Recommended Action Verify that all CASA devices are running the same version of the protocol.

Error Message
%CASA-2-NOMEM: Out of memory: [chars]\n
Explanation CASA has failed to allocate memory.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%CASA-4-PORTCHANGE: Wildcard overlap: [chars]

Explanation  A CASA wildcard, received on one port, has been overwritten by a service manager sending to another port. This message may appear once if your service is migrating to a new forwarding-agent port; if it recurs, it could indicate a configuration problem.

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

Error Message
%CASA-4-SECURITY_FAIL: [chars] security information in CASA packet.

Explanation  A security check has failed.

Recommended Action  Verify that all CASA systems are configured with the same password.

Error Message
%CASA-4-UNEXPECTED: Unexpected error: [chars]

Explanation  An unexpected error occurred during a CASA operation.

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

Error Message
%CASA-4-WARNING: Unexpected condition: [chars]

Explanation  An unexpected condition was detected during a CASA operation.

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

CBUS Messages

The following are ciscoBus controller error messages.

Error Message
%CBUS-3-ADDRFILTR: Interface [chars], address filter [chars] command failed, code [hex]

Explanation  The specified address filter command, which was sent to the specified interface, has failed with the displayed error code.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CBUS-3-AIPINVPLIM: Interface [chars], Invalid PLIM detected. Interface downed

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-BADRXEOFVEC: [chars] ustatus: [chars] ([hex]), [hex] [hex] [hex] [hex]

Explanation This message provides debugging information when an IP panic occurs.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-BADTXEOFVEC: [chars] ustatus: [chars] ([hex]), [hex] [hex] [hex] [hex]

Explanation This message provides debugging information when an IP panic occurs.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-BADTXSTATE: [chars] ustatus: [chars] ([hex]), [hex] [hex] [hex] [hex]

Explanation This message provides debugging information when an IP panic occurs.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%CBUS-3-BADVC: [chars] [dec]/[dec] got bad VC packet
[hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

Explanation  An interface has received a packet with bad VC encapsulation. This indicates either a software or hardware problem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-BUFFER: Controller [dec], Error ([hex]), Buffersize = [dec], Bufferpool = [dec], number [dec]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CATMCFG: Interface [chars], Cannot config interface, CBus ATM MEM [hex], status [dec]

Explanation  A software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CATMREJCMD: [chars] [chars] command failed (error code [hex])

Explanation  The ciscoBus ATM microcode rejected a command sent by the route processor (RP). The error code is the status value returned by the command.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.
**Error Message**

%CBUS-3-CATMRSET: Interface [chars], Error ([hex]) [chars] - aip_reset()

**Explanation**  A software error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

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**Error Message**

%CBUS-3-CATMRSETU: Unit [dec], Error ([hex]) [chars] - cbus_atm_reset()

**Explanation**  A software error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

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**Error Message**

%CBUS-5-CBADVCSETUP: Interface [chars], setup vc failed with vci exceeding (vc-per-vp - 3) on the last vpi.

**Explanation**  The TI1570 chip reserves three Rx DMA channels for OAM cells. As a result, the last three VCIs of the last VPI block cannot be used for regular traffic.

**Recommended Action**  Avoid trying different VCI and VPI combinations.

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**Error Message**

%CBUS-3-CBUSBCE: Failed to select a BCE, response [hex] - cbus_bce_update_ifa()

**Explanation**  A hardware or software error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%CBUS-3-CBUSBCEPERM: Failed to select a BCE, response [hex] - cbus_bce_permissions_update()

Explanation  A hardware or software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CCBCMDFAIL0: Controller [dec], cmd ([dec]) failed ([hex])

Explanation  A command that was sent from the system to an interface processor has failed to complete successfully.

Recommended Action  The system recovered by generating and sending an error code to the requester. No action is required.

Error Message

%CBUS-3-CCBCMDFAIL1: Controller [dec], cmd ([dec] [hex]) failed ([hex])

Explanation  A command that was sent from the system to an interface processor has failed to complete successfully.

Recommended Action  The system recovered by generating and sending an error code to the requester. No action is required.

Error Message

%CBUS-3-CE3DSX3ERR: ([chars])Illegal E3 value - unit is [dec]

Explanation  The internal data structure is corrupted. The corruption has caused the “love letter” (operating status or configuration message) to be dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%CBUS-3-CFGCMDDROPPED: Config queue is full, command was dropped, slot [dec]

Explanation The sending of a configuration command was retried. The receiving queues were still full after retries; therefore the command was dropped.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CMDTIMEOUT: Cmd timed out, CCB 0x[hex], slot [dec], cmd code [dec]

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CORRUPT: Controller [dec], wrote [hex], read [hex], loc [hex] - dci_memtest()

Explanation A hardware component has failed an internal diagnostic test.

Recommended Action Replace the malfunctioning device.

Error Message

%CBUS-3-CT3STAT: Out of buffers--losing status information for CT3 on VIP card

Explanation An internal software resource has been exhausted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CTRACHECK: Interface [chars], Adapter Check Error ([hex] [hex] [hex] [hex])

Explanation The Token Ring monitor firmware has detected a fatal error on the interface card.

Recommended Action Issue a clear interface command. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%CBUS-3-CTRBADLOVE1: Interface [chars], SRB_COMPLETE lovenote received with unknown command ([hex])

Explanation The system has received a message from the token-ring interface but does not recognize the message.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-CTRBADLOVE1_DUMP: Dump of MEMB follows -SRB_ADDR: [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

Explanation The system is printing codes related to a previous “love letter” (operating status or configuration message) error message.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-4-CTRBADLOVE2: Interface [chars], Unexpected SRB_COMPLETE lovenote, command=[hex], result=[hex]

Explanation The system has received an unsolicited message from the token-ring interface. The system ignored the message and continued normal processing.

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

Error Message

%CBUS-3-CTRCMDFAILED: Interface [chars], CTR Command [chars] Failed, [chars] ([hex])

Explanation A command that was sent from the system to the token-ring interface has failed to complete successfully.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CBUS-3-CTRCMDFAILED2: Interface [chars], CTR Command [chars] Failed, Code [hex]

Explanation  A command that was sent from the system to the token-ring interface has failed to complete successfully.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-CTRINIT: Interface [chars], CTR Initialization Failed - [chars]

Explanation  The token-ring interface has failed one of its internal self-tests.

Recommended Action  Issue a `clear interface` command. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CBUS-3-CTRLRCMDFAIL0: Controller [dec], cmd ([dec]) failed ([hex]) count ([dec])

Explanation  A command that was sent from the system to an interface processor has failed to complete successfully.

Recommended Action  The system recovered by generating and sending an error code to the requester.

Error Message
%CBUS-3-CTRLRCMDFAIL1: Controller [dec], cmd ([dec] [hex]) failed ([hex]) count ([dec])

Explanation  A command that was sent from the system to an interface processor has failed to complete successfully.

Recommended Action  The system recovered by generating an error code to the requester.

Error Message
%CBUS-3-CTRRAMTEST: Interface [chars], RAM Addressing Test Failed - [chars]

Explanation  The token-ring interface has failed its memory diagnostic tests.

Recommended Action  Issue a `clear interface` command. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%CBUS-3-CTRRSET: Interface [chars] failed to initialize

Explanation The token-ring interface failed to insert into the Token Ring. The interface is placed into a reset state and will not automatically try to reinsert itself.

Recommended Action Issue a clear interface command. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%CBUS-3-CTRUCHECK: Interface [chars], Microcode Check Error

Explanation The token-ring interface microcode has detected an unrecoverable error.

Recommended Action Issue a clear interface command. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%CBUS-3-DAUGHTER: Unit [dec], daughter controller [dec] failed [chars] test — interface disabled

Explanation A hardware component has failed an internal diagnostic test. Test output and descriptions are as follows:

- Unit [dec] (ranges 0-14)—Indicates the Multibus jumper setting for the ciscoBus controller, or a slot number in the Cisco 7000.
- daughter controller [dec] (ranges 0-3)—Indicates the ciscoBus relative slot number (0 to 3, or in the Cisco 7000, 0 to 4) of the daughter card that failed the test.
- failed [chars] test ([chars]= memd read, memd write)—If the failed test was memd read, the processor was able to write to shared ciscoBus buffer memory from the ciscoBus registers, but was unable to read back that memory through special commands to the daughter card.

If the failed test was memd write, writes to the memory device through the daughter card were not verified successfully with reads through the ciscoBus controller.

The daughter card under test responds successfully to some commands (otherwise the software would have received a DAUGHTER_NO_RSP message), but failed its memory device tests. The daughter card must be able to write to some memory device addresses; otherwise, it cannot respond to any commands.

Recommended Action First ensure that the daughter controller card is properly seated in its Multibus and ciscoBus connectors. Next, swap daughter cards and check whether the error follows the daughter card or the slot. If the message recurs, call your technical support representative for assistance.
Error Message

%CBUS-3-DAUGHTER_NO_RSP: Unit [dec], daughter [dec], not responding ([hex]) — disabled

Explanation  A hardware component failed an internal diagnostic test. Test output and descriptions of ranges are as follows:

- Unit [dec] (ranges 0-14) — Indicates the Multibus jumper setting for the ciscoBus controller.
- daughter controller [dec] (ranges 0-3) — Indicates the ciscoBus relative slot number (0 to 3, or in the Cisco 7000, 0 to 4) of the daughter card that failed the test.

The hardware of the daughter card was recognized across the ciscoBus backplane, but the daughter card did not respond to the first command that was issued to it.

This condition is a result of one of the following: the daughter card did not reset, or the microcode on the card is in a hung state, or the card cannot fully communicate across the ciscoBus backplane (cannot read or write shared MEMD or does not get the MALU_ATTENTION signal across the ciscoBus).

Recommended Action  First, ensure that the daughter card is properly seated in its Multibus and ciscoBus connectors. If the message recurs, call your technical support representative.

Error Message

%CBUS-3-FCICMDFAIL0: Controller [dec], cmd ([dec]) failed ([hex]) count ([dec])

Explanation  A command that was sent from the system to an interface processor has failed to complete successfully.

Recommended Action  The system recovered by generating an error code to the requester. No action is required.

Error Message

%CBUS-3-FCICMDFAIL1: Controller [dec], cmd ([dec] [hex]) failed ([hex]) count ([dec])

Explanation  A command that was sent from the system to an interface processor has failed to complete successfully.

Recommended Action  The system recovered by generating and sending an error code to the requester. No action is required.

Error Message

%CBUS-5-FDDICMD: ’[chars]’ is not supported on [chars]

Explanation  The issued command is not supported on this FDDI interface.

Recommended Action  No action is required.
CBUS Messages

Error Message
%CBUS-3-FDDIRSET: Interface [chars], Error ([hex]) [chars] - fddi_reset()

Explanation  The specified hardware device did not respond appropriately to a request.

Recommended Action  Ensure that the specified hardware device is functioning and is configured correctly.

Error Message
%CBUS-3-FDIRSETU: Unit [dec], Error ([hex]) [chars] - fddi_reset()

Explanation  The specified hardware device did not respond appropriately to a request.

Recommended Action  Ensure that the specified hardware device is functioning and is configured correctly.

Error Message
%CBUS-3-FSIPRSET: Interface [chars], Error ([hex]) [chars] - fsip_reset()

Explanation  An FSIP did not respond to a reset request from the RP.

Recommended Action  Check the FSIP electrical connections, cable, and ciscoBus connections. An FSIP microcode reload will be required. If the check of electrical connections reveals no problems and this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CBUS-3-HSSIRSET: Interface [chars], Error ([hex]) [chars] - hssi_reset()

Explanation  A hardware component did not respond to a reset command.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-INITERR: Interface [dec], Error ([hex]), idb [hex] [dec] [chars] - cbus_init()

Explanation  The switch processor or ciscoBus controller has signalled an error while processing a packet or selecting an interface. This message indicates a software problem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%CBUS-3-INTR: Interface [dec], idb [hex] [dec] [chars] - cbus_interrupt()

Explanation  The switch processor or ciscoBus controller has returned an invalid value.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-4-NOCOOKIE: [chars]-[dec] controller missing configuration data - disabled

Explanation  The controller type was derived from a hardware probe. The controller number indicates the ciscoBus relative slot number. This message indicates a hardware error.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-OUTHUNG: [chars]: tx[chars] output hung ([hex] - [chars]), [chars]

Explanation  A transmission attempt on an interface has failed. The interface might not be attached to a cable or there might be a software problem.

Recommended Action  Check that the interfaces are all connected to the proper cables. If improper connection is not the problem, contact your Cisco technical support representative for assistance.

Error Message

%CBUS-3-POLLFAIL: Interface [chars] failed to respond, debug info follows

Explanation  A token-ring interface card failed to respond to periodic polling. This can indicate a software or hardware problem. See “CBUS-3-POLLFAILDAT” for the syntax of this message.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CBUS-3-POLLFAILDAT: Int [dec]: [hex] [hex] [hex] [hex] [hex] [hex]

Explanation  This is the debugging information for the “CBUS-3-POLLFAIL” error.

Recommended Action  This is a debug message only. No action is required.
Error Message
%CBUS-3-POTSTAT: Out of buffers--losing status information for POTENT on VIP card

Explanation  An internal software resource has been exhausted.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-RESETNXI: Reset of removed interface [hex] ([chars])

Explanation  An interface reset was attempted on an interface that had been removed from the router. This message appears if you use the `shutdown` command to bring down a previously removed interface.

Recommended Action  No action is required.

Error Message
%CBUS-4-RSETFAIL: Interface [chars] failed to reset properly in [chars], code [hex]

Explanation  An interface reset command has failed. This may be a software or hardware problem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-SERRSET: Interface [chars], Error ([hex]) [chars] - serial_reset()

Explanation  A software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CBUS-3-TESTFAIL: Unit [dec], failed [chars] test - interface disabled

Explanation  A hardware component has failed an internal diagnostic test.

Recommended Action  Check the switch settings on the interface cards. Check for proper unit numbers. Reset the cards. Replace the malfunctioning device.

Error Message
%CBUS-3-TXALLOC: Error ([hex]) tx_allocate - cbus_init()

Explanation  A hardware device did not respond appropriately to a request.

Recommended Action  Ensure that the device is functioning and is configured correctly.

Error Message
%CBUS-3-TXSTARTPENDACTIVE: [chars] ustatus: [chars] ([hex]), [hex] [hex] [hex] [hex]

Explanation  This message provides debugging information when an IP panics.

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

Error Message
%CBUS-3-UNKENC: Interface [chars], unknown encaps type [hex]

Explanation  A packet was received from the CIP with an unknown encapsulation type. The packet will be dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CBUS-3-UNKNOWN: [chars] ustatus: [chars] ([hex]), [hex] [hex] [hex] [hex]

Explanation  This message provides debugging information when an IP panics.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
CCH323 Messages

The following are Call Control for H323 error messages.

Error Message

%CCH323-3-BAD_IP_ADDRESS: [chars]: illegal destination [chars]

**Explanation**  The IP address that was passed from the Call Control API in the call setup request is invalid.

**Recommended Action**  Check the dial-peer configuration for the dial peer that matches the called party number. Ensure that the session target field contains a valid IP address or DNS name.

Error Message

%CCH323-3-CALL_SETUP_FAILED: [chars]: call setup failed

**Explanation**  The call setup request has failed.

**Recommended Action**  Verify that the remote destination identified by the IP address is reachable.

Error Message

%CCH323-3-CANNOT_ALLOCATE_CALL_INFO: [chars]: cannot allocate call info data structure

**Explanation**  Allocation of the CCH323 call information structure has failed. This condition may occur because the system memory pool is exhausted.

**Recommended Action**  This call will be terminated because of a lack of resources.

Error Message

%CCH323-3-CANNOT_ALLOCATE_CCB: [chars]: cannot allocate call control block

**Explanation**  Allocation of the CCH323 call control block has failed. The allocation failure is possibly caused by an exhausted system memory pool.

**Recommended Action**  This can be a catastrophic error. Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%CCH323-3-CANNOT_FIND_CCB: [chars]: cannot find CCH323 call control block based on callID [dec]

Explanation The system cannot find a CCH323 call control block based on the specified call ID. This is an indication that some events have occurred out of sequence.

Recommended Action No action is required.

Error Message

%CCH323-3-CANNOT_INSERT_CCB: [chars]: cannot insert control block [hex] to tree

Explanation Insertion of the specified CCH323 call control block to the RBTree has failed. This condition can be related to a corrupted RBTree.

Recommended Action This can be a catastrophic error. Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CCH323-3-CCAPI_CONNECT_ERROR: [chars]: cc_api_call_disconnected returns [dec]

Explanation An error is returned when CCH323 attempts to call cc_api_call_connected.

Recommended Action No action is required.

Error Message

%CCH323-3-CCAPI_DISCONNECT_ERROR: [chars]: cc_api_call_disconnected returns [dec]

Explanation An error is returned when CCH323 attempts to call cc_api_call_disconnected.

Recommended Action No action is required.

Error Message

%CCH323-3-CCH323_RSCMON_SETUP_FAILURE: [chars][dec]

Explanation A failure was encountered in setting up the monitoring of H.323 resources.

Recommended Action Power-cycle the system. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CCH323-3-CCH323_UNKNOWN_EVENT: unknown event [hex]

Explanation  An unknown CCH323 event has occurred.

Recommended Action  No action is required.

Error Message
%CCH323-2-E164_LENGTH_IS_NOT_SUPPORTED: [chars]: E164 address length [dec] is not supported

Explanation  A packet was received with an E.164 address of a length that is not supported.

Recommended Action  Report this event immediately to your Cisco technical support representative.

Error Message
%CCH323-2-GTKP_UNREGSTR: Gatekeeper [chars] requested unregister from Gateway [chars]

Explanation  The gatekeeper has requested that it be unregistered from Gateway.

Recommended Action  Verify that this is an intended request. If it is not, copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CCH323-2-GTWY_REGSTR_FAILED: Gateway [chars] failed to register with Gatekeeper [chars] even after [dec] retries

Explanation  A gateway has failed to register with the gatekeeper.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CCH323-2-GTWY_REGSTR_FAILED_ALT_GK: Gateway [chars] failed attempt to register with Alternate Gatekeeper [chars]

Explanation  A gateway has failed in an attempt to register with an alternate gatekeeper.

Recommended Action  Report this error message immediately to your Cisco technical support representative. Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you
cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%CCH323-2-GTWY_UNREGSTR: Gateway [chars] unregistered from Gatekeeper [chars]

**Explanation** A gateway has unregistered from the gatekeeper.

**Recommended Action** Verify that this is an intended request. If it is not, copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%CCH323-3-OSS_INIT_FAILED: [chars]: OSS init failure: errno = [dec]

**Explanation** OSS ASN1 initialization has failed.

**Recommended Action** This can be a catastrophic occurrence. Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%CCH323-6-REGSTR: Gateway [chars] registered with Gatekeeper [chars]

**Explanation** A gateway has registered with the gatekeeper.

**Recommended Action** No action is required.

**Error Message**

%CCH323-3-STRCALLHISFAIL: cch323_store_call_history: [chars]

**Explanation** An attempt to insert an active H323 call record into the call history list has failed.

**Recommended Action** No action is required.
The following are H.323 proxy error messages.

Error Message
%CCPROXY-3-NOBLOCK_EVENT: During initialization of proxy, [chars]: cannot allocate event block

Explanation During the initialization of a proxy, an event block could not be allocated.

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

Error Message
%CCPROXY-3-NOCCAPI_INTERFACE: CCAPI new interface is not created in [chars]

Explanation The new call-control API interface was not created.

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

Error Message
%CCPROXY-3-NOCCB_FROM_CALLID: No call-control-block is found in [chars] for ([hex]).

Explanation No call-control block was found.

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

Error Message
%CCPROXY-3-UNREGISTERED_BY_GK: H.323 Proxy registration is being removed by Gatekeeper [chars] Check "show proxy h323 status" for details.

Explanation The H.323 proxy registration is being removed by the gatekeeper. For more details, enter the show proxy h323 status command.

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

The following are Cable Data Modem (CDM) error messages.

Error Message
%CDM-6-CHANNELDOWN: Channel(vpi=[dec]) on [chars], changed state to down

Explanation  The signaling connection to this system has gone down.

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

Error Message
%CDM-6-CHANNELUP: Channel(vpi=[dec]) on [chars], changed state to up

Explanation  The signaling connection to this system has been activated.

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

Error Message
%CDM-6-CHANNELUPPENDING: Channel(vpi=[dec]) on [chars], changed state to up pending

Explanation  The local interface is up, but the remote interface or system does not respond. It is probably not connected or is powered down.

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

Error Message
%CDM-3-CONFIG: Interface [chars] must be ACIP to run cable application

Explanation  The named interface is not an ATM Cable Interface Processor interface.

Recommended Action  An ATM Cable Interface Processor is required to run the CDM application. Verify that an ATM Cable Interface Processor is installed in the system.

Error Message
%CDM-3-INIT: ACIP required to run this Cisco IOS image

Explanation  No ATM Cable Interface Processor is installed in the system.

Recommended Action  An ATM Cable Interface Processor is required to run the cable data modem (CDM) application. Install an ATM Cable Interface Processor.
**Error Message**

%CDM-6-MODEMDOWN: Modem(vci=[dec]) on [chars], changed state to down

**Explanation**  
A modem was disconnected from the system.

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

**Error Message**

%CDM-6-MODEMUP: Modem(vci=[dec]) on [chars], changed state to up

**Explanation**  
A new modem was connected to the system.

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

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**CDP Messages**

The following are Cisco Discovery Protocol (CDP) error messages.

**Error Message**

%CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on [chars] ([chars]), with [chars] [chars] ([chars]).

**Explanation**  
CDP has discovered a mismatch of duplex configuration.

**Recommended Action**  
Configure the interfaces so they are both running at the same duplex (full- or half-duplex).

**Error Message**

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on [chars] ([dec]), with [chars] [chars] ([dec]).

**Explanation**  
CDP has discovered a mismatch of native VLAN configuration.

**Recommended Action**  
Configure the interfaces to use the same native VLAN.
CE3 Messages

The following are CE3 port adapter error messages.

Error Message
%CE3-3-BADMSG: Received unexpected mailbox message (id = [dec])

Explanation  An unexpected message was received from the CE3 firmware.

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

Error Message
%CE3-2-CE3FWCRASHED: CE3 F/W crashed: [hex] - VIP reset

Explanation  The CE3 firmware did not update the software watchdog.

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

Error Message
%CE3-2-CE3FWCRASHEDINFO: [hex] [hex] [hex] [hex]

Explanation  The CE3 firmware did not update the software watchdog.

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

Error Message
%CE3-1-CONFIGURE: Failed to configure [dec] interfaces in bay [dec], shutting down bay

Explanation  The CE3 hardware has failed. Some components on the board failed to initialize.

Recommended Action  Replace the CE3 port adapter.

Error Message
%CE3-1-DISCOVER: Found [dec] interfaces in bay [dec], shutting down bay

Explanation  The CE3 hardware has failed. Some components on the board failed to initialize.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CE3-1-DWNLDFAIL: Microcode to slot [dec]

Explanation  An attempt to download firmware into the CE3 port adapter has failed.

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

Error Message
%CE3-1-ENABLEFAIL: [chars] could not be enabled by [chars]

Explanation  The restart has failed to enable the interface.

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

Error Message
%CE3-3-ERROR: [chars]

Explanation  This message provides general error information.

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

Error Message
%CE3-1-INITFAIL: Slot [dec] firmware init ([chars])

Explanation  The CE3 firmware initialization has failed.

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

Error Message
%CE3-1-INITFAILP: [chars] init failed at [chars]

Explanation  The CE3 firmware initialization has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CE3-3-LOVEFAIL: [chars]: failed to send [chars] love letter

Explanation  A “love letter” (operating status or configuration message) was not sent to the RSP.

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

Error Message
%CE3-3-MBOXRECV: Failed to receive reply [dec] from bay [dec] firmware

Explanation  A message was not received from the CE3 firmware.

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

Error Message
%CE3-3-MBOXRECVP: Failed to receive reply [dec] to [chars] driver firmware

Explanation  A port-related message was not received from the CE3 firmware.

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

Error Message
%CE3-3-MBOXSEND: Failed to send msg [dec] to bay [dec] firmware

Explanation  A message was not sent to the CE3 firmware.

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

Error Message
%CE3-3-MBOXSENDP: Failed to send msg [dec] to [chars] driver firmware

Explanation  A port-related message was not sent to CE3 firmware.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CE3-3-NOACC: [chars] - Accumulator is not available

Explanation An invalid Tx accumulator has been detected.

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

Error Message
%CE3-3-NOTFREEDM: Slot [dec] device ID seen as [hex], expected [hex] (FREEDM)

Explanation An attempt to detect the HDLC controller on the CE3 has failed.

Recommended Action Replace the CE3 port adapter.

Error Message
%CE3-3-NOTPLX: Slot [dec] device ID seen as [hex], expected [hex] (PLX9060)

Explanation The PLX 9060 was not detected on the CE3.

Recommended Action Replace the CE3 port adapter.

Error Message
%CE3-1-NOTREADY: Slot [dec] for microcode download

Explanation An error was detected on the communication path between the VIP and the CE3 port adapters.

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

Error Message
%CE3-2-NOVC: [chars]: packet received for unknown VC [dec]

Explanation The virtual channel encapsulation is corrupted.

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

Error Message
%CE3-1-RESTARTFAIL: [chars] could not be reset by [chars]

Explanation The restart has failed to reset the interface.

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

The following are Circuit Emulation Service (CES) error messages.

Error Message

%CES-1-STARTFAIL: [chars] could not be enabled by [chars]

Explanation The restart has failed to enable the interface.

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

Error Message

%CES-1-STOPFAIL: [chars] could not be disabled by [chars]

Explanation The shutdown failed to disable the interface.

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

CES Messages

The following are Circuit Emulation Service (CES) error messages.

Error Message

%CES-2-INTERNAL_CRITICAL: [chars]

Explanation The CES subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%CES-3-INTERNAL_ERROR: [chars]

Explanation The CES subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%CES-4-INTERNAL_WARNING: [chars]

Explanation The CES subsystem has encountered an internal software error. The error message contains text that can be used to help identify the nature of the problem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` output, contact your Cisco technical support representative and provide the representative with the gathered information.

**CHOPIN Messages**

The following are Cisco Chopin error messages.

Error Message

%CHOPIN-3-BADADDR: chopin_little_endian_addr: Attempted conversion of invalid address ([hex])

Explanation A software error has occurred during an attempt to determine PCI device addressing.

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

Error Message

%CHOPIN-3-BADADDR2: chopin_big_endian_addr: Attempted conversion of invalid address ([hex])

Explanation A software error has occurred during an attempt to determine PCI device addressing.

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

Error Message

%CHOPIN-3-BADBAYDEV: get_pci_dev_num: Invalid bay ([dec]) or device number offset ([dec])

Explanation A software error has occurred during an attempt to determine PCI device addressing.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CHOPIN-3-BADDEVNO: pas_get_device_subunit: Invalid PCI device number: [dec]

Explanation A software error occurred during an attempt to determine PCI device addressing.

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

Error Message
%CHOPIN-3-BADNV: Detected invalid NVRAM size: [dec] bytes

Explanation The detected size of NVRAM is not one of the supported sizes. The NVRAM may be faulty.

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

Error Message
%CHOPIN-3-BADPA: Invalid Port Adaptor type ([dec]) reported for mainboard

Explanation The virtual port adapter type that was derived from the main board type is not supported. One reason for this condition is that this main board is a new main board type and the software release that is running on the system does not support the new main board type.

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

Error Message
%CHOPIN-3-BADPCIRD: PCI Configuration Read Cycle Failed for bus [dec], Device [dec], function [dec], register [dec]

Explanation A PCI Bus Configuration Read cycle has failed. The main board needs to be replaced.

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

Error Message
%CHOPIN-3-BADPCIWR: PCI Configuration Write Cycle Failed for bus [dec], Device [dec], function [dec], register [dec]

Explanation A PCI Bus Configuration Write cycle has failed. The main board needs to be replaced.

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

%CHOPIN-3-INITFAIL: CHOPIN (bay [dec]), Init Failed at [chars] - line [dec] arg [hex]

**Explanation**  The port adapter has failed to complete its hardware initialization.

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

**Error Message**

%CHOPIN-3-NOMAC: Can’t allocate MAC address for interface [int]/[int]

**Explanation**  A MAC address cannot be allocated for the specified interface because all available MAC addresses for the system have been allocated.

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

**Error Message**

%CHOPIN-6-NOTDMBP: No TDM backplane is supported on slot [dec].

**Explanation**  A TDM backplane is not supported on the specified slot; therefore, DS0 inter slot cannot be cross-connected.

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

**Error Message**

%CHOPIN-6-NOTSUPPORT: Voice PA is not supported in this platform.

**Explanation**  The port adapter is not supported on this platform.

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

**Error Message**

%CHOPIN-3-NVERASEFAIL: Failed to erase config due to internal error

**Explanation**  The password protection feature has failed to erase a configuration because of an internal error.

**Recommended Action**  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CHOPIN-1-OVERTEMP: System detected OVERTEMPERATURE condition.
Putting the system in Power save mode and going to rommon.
Please resolve cooling problem and restart system!

Explanation  The environmental monitor has detected a high-temperature condition.

Recommended Action  Make sure that the room temperature is within recommended ranges and that air flow to the card is not blocked. If this condition persists, the environmental monitor might shut down the system. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CHOPIN-6-RXDFILLFAIL: CHOPIN (bay [dec]), Data rx ring refill failed:
rxd_fill_fail=[dec]

Explanation  The port adapter has failed to refill the data Rx ring.

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

Error Message
%CHOPIN-6-RXVFILLFAIL: CHOPIN (bay [dec]), Voice rx ring refill failed:
rxv_fill_fail=[dec]

Explanation  The port adapter has failed to refill the voice Rx ring.

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

Error Message
%CHOPIN-1-STARTFAIL: [chars] channel not enabled

Explanation  A software or hardware error has occurred. The Chopin serial interface is not responding to the commands that are used to initialize it.

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

Error Message
%CHOPIN-3-TDMFAIL: CHOPIN-TDM, access failed at [chars] - line [dec],
arg1=[dec],arg2=[dec]

Explanation  The port adapter has failed to access the TDM switch.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CHOPIN-3-TSBUSY: CHOPIN (bay [dec]), TDM timeslot is busy: ST=[dec]/TS=[dec]

Explanation The port adapter has failed to grant a cross-connect setup request.

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

Error Message
%CHOPIN-3-TSNONBUSY: CHOPIN (bay [dec]), TDM timeslot is non busy: ST=[dec]/TS=[dec]

Explanation The port adapter has failed to grant a cross-connect teardown request.

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

Error Message
%CHOPIN-5-TXVFULL: CHOPIN (bay [dec]), Voice tx ring is full: dma_done=[dec], last_dma_done=[dec]

Explanation The voice Tx ring for the port adapter is full.

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

Error Message
%CHOPIN-3-UNEXPEVENT: CHOPIN (bay [dec]), received an unexpected event=[hex]

Explanation The port adapter has received an unexpected event from the firmware.

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

CHOPIN_MAINBOARD_ASYNC_PQII Messages

The following are Chopin Main Board Asynchronous Driver error messages.

Error Message
%CHOPIN_MAINBOARD_ASYNC_PQII-3-NOMEMORY: No memory for [chars] of unit [dec]

Explanation The router does not have enough memory to perform the requested function.

Recommended Action Consider adding more shared memory. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
CI Messages

The following are Cisco 7500 platform chassis interface (CI) error messages.

Error Message
%CI-1-BLOWSHUT: Blower failure, shutdown in [dec] seconds

Explanation One of the six blowers in a five-slot chassis has failed. All blowers are needed for router operation because each blower cools a separate region of the card(s) in the chassis. If a blower failure persists for 2 minutes, the router will shut itself down and will need to be power cycled.

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

Error Message
%CI-6-BPLANE: CI type [int] differs from NVRAM type [int]

Explanation The chassis type as reported by the CI is different from the chassis type programmed into NVRAM.

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

Error Message
%CI-4-COND: Restarting with [int] recent soft power shutdowns (or system just powered-on)

Explanation The router is restarting after a soft shutdown because of an over temperature condition. The router has determined that the temperature rose above the board shutdown trip point, and a soft shutdown has occurred. The power supplies, fans, and CI continue to run.

The router is restarting because the system has cooled below the board restart trip point. A counter is started after the first time the router is shut down because of an over temperature condition. If the router shuts down and restarts repeatedly, the router will undergo a hard shutdown, which requires a power cycle to recover. The counter will be reset to zero when the router has been up for six hours and the router temperature has not risen above the board shutdown trip point.

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

%CI-1-CORETEMP-CRITICAL: Core CRITICAL Temperature limit exceeded

Explanation  The temperature of the processor card has exceeded the critical limit. An automatic shutdown will occur if the temperature exceeds the critical limit for more than two minutes. The possible causes of this error are a malfunctioning fan or a short circuit on the processor card.

Recommended Action  Check the temperature of the processor card and determine that the fan is not malfunctioning. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%CI-3-CORETEMP-MAJOR: Core Major Temperature limit exceeded

Explanation  The temperature of the processor card has exceeded the major limit. The possible causes of this error are a malfunctioning fan or a short circuit on the processor card.

Recommended Action  Check the temperature of the processor card and determine that the fan is not malfunctioning. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%CI-3-CORETEMP-MINOR: Core Minor Temperature limit exceeded

Explanation  The temperature of the processor card has exceeded the minor limit. The possible causes of this error are a malfunctioning fan or a short circuit on the processor card.

Recommended Action  Check the temperature of the processor card and determine that the fan is not malfunctioning. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%CI-6-CORETEMPOK: Core Temperature OK

Explanation  The temperature next to the core of the processor card is normal.

Recommended Action  No action is required.

Error Message

%CI-3-CTRLRTYPE: Wrong controller type [hex]

Explanation  The CI was manufactured incorrectly.

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

%CI-2-ENVCRIT: [chars] measured at [chars]

**Explanation**  One of the measured environmental test points has exceeded an extreme threshold.

**Recommended Action**  Correct the specified condition or the router may shut itself down or fail to operate properly.

**Error Message**

%CI-4-ENVWARN: [chars] measured at [chars]

**Explanation**  A voltage or temperature measurement is out of range. This error is normally caused by a hardware problem, specifically the power supply or the fan; however, this error could also be caused by a software failure.

**Recommended Action**  If a redundant power supply is present in the system, test each redundant power supply one by one and see if this message is coming from one of them. Also verify the status of your electrical power source. If these steps do not help, try to reseat the chassis interface. If the problem persists, replace the affected equipment (the power supply or the fan).

**Error Message**

%CI-1-INLETTEMPCRITICAL: Inlet temperature CRITICAL limit exceeded

**Explanation**  The air intake temperature critical limit has been exceeded. The system will automatically shut down in two minutes if the air intake temperature does not drop below the critical limit.

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

**Error Message**

%CI-3-INLETTEMPMAJOR: Inlet temperature major limit exceeded

**Explanation**  The air intake temperature major limit has been exceeded.

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

**Error Message**

%CI-3-INLETTEMPMINOR: Inlet temperature minor limit exceeded

**Explanation**  The air intake temperature minor limit has been exceeded.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CI-6-INLETTEMPOK: Inlet temperature normal

Explanation  The temperature of the chassis air intake is normal.

Recommended Action  No action is required.

Error Message
%CI-2-INT: Unexpected interrupt - status [hex]

Explanation  An unexpected interrupt has occurred. This is a serious software error, which will be followed by a core dump.

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

Error Message
%CI-4-MAXOUTPUT: Power supply [int] [dec]V is at or near rated output

Explanation  The power supply is delivering its maximum rated current. This condition is not a problem unless the current continues to increase beyond the rated limit of the power supply, which can cause hardware damage.

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

Error Message
%CI-1-NOFAN: Fan tray empty

Explanation  The chassis fan tray does not exist.

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

Error Message
%CI-4-NOTFOUND: Chassis Interface not found

Explanation  The system software could not detect the presence of a CI card.

Recommended Action  Verify that the CI card is correctly and fully installed in the backplane. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CI-3-PARTFANFAIL: Single fan failure

Explanation The chassis fan tray is not fully functioning.

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

Error Message
%CI-0-SHUTFANGONE: System shutting down due to missing fan tray

Explanation The chassis fan does not exist.

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

Error Message
%CI-3-SLOTCOMP: Inconsistent [chars] slot [hex]

Explanation The CI software has detected a possible inconsistency in the CI hardware.

Recommended Action Confirm that the CI card is correctly and fully installed in the backplane. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CI-4-SYSLOAD: System [dec]V load exceeds single power supply [int] capacity

Explanation The electrical current usage of the system exceeds the capacity of a single power supply. During this condition, power supplies must not be removed from the system.

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

Error Message
%CI-1-TOTALFANFAIL: Total fan tray failure

Explanation The chassis fan tray has totally failed.

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

Error Message
%CI-4-UNBALANCE: Unbalanced [dec]V output from dual power supplies

Explanation The difference in electrical current output between the two power supplies is out of tolerance for the system design. One of the power supplies may be failing or is about to fail.

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

CIPDUMP Messages

The following are Channel Interface Processor (CIP) core dump error messages.

Error Message
%CIPDUMP-3-CIP_CORE_DUMP_ERROR: CIP core dump error, slot [dec]: [chars]

Explanation An error has occurred during a CIP core dump.

Recommended Action No action is required.

Error Message
%CIPDUMP-6-CIP_CORE_DUMP_PROGRESS: Dump of slot [dec] core [chars].

Explanation This message contains progress updates for the CIP core dump.

Recommended Action No action is required.

CIRRUS Messages

The following are CD2430 asynchronous controller error messages.

Error Message
%CIRRUS-3-BADHDXFSM: Interface serial [dec], Unexpected HDX state [dec], event [dec]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CIRRUS-3-BADMODE: Interface serial [dec], Bad mode encountered in init

   Explanation   An internal software error has occurred.

   Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CIRRUS-3-BADRXISR: Interface serial [dec], Unexpected situation in receive ISR

   Explanation   An internal software error occurred while the asynchronous controller was receiving data.

   Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CIRRUS-3-BADTXISR: Interface serial [dec], Unexpected situation in transmit ISR

   Explanation   An internal software error has occurred while the asynchronous controller was transmitting data.

   Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CIRRUS-4-DOWNREV_NM: Network Module card in slot [dec] is incompatible with the system.

   Explanation   The network module in this slot is an old revision, which is not compatible with this system.

   Recommended Action   Upgrade the network module. Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CIRRUS-5-LINEFLAP: Unit [dec] excessive modem control changes

Explanation The specified asynchronous interface was determined to have too many automatic control changes in too short a span of time. This error may indicate a hardware or software error in the interface.

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

Error Message
%CIRRUS-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation An operation could not be accomplished because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%CIRRUS-3-RESETERR: CD2430 serial controller [dec], Reset timeout error

Explanation The asynchronous controller has failed to respond to a reset command, which may indicate a hardware failure.

Recommended Action Reset the interface or controller. Cycle the power if necessary. If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CIRRUS-3-SETCHAN: Serial[dec]: setchan called in CD2430 interrupt context

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
CIRRUS_PM Messages

The following are slow-speed synchronous and asynchronous port module error messages.

Error Message
%CIRRUS_PM-3-BADLOOPCABLE: Loopback not supported for DTE/X.21 port [dec] in slot [dec]

Explanation The DTE/X.21 cable does not support loopback testing.

Recommended Action Use proper cable for loopback testing.

Error Message
%CIRRUS_PM-3-DISCOVER: CIRRUS PM at slot [dec]: PCI discovery failed

Explanation The software has failed to initialize the network module.

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

Error Message
%CIRRUS_PM-2-NOBUFPPOOL_ASYNC: Unable to create buffer pool for async mode interface

Explanation There is not enough memory for a per-channel control block of the CD2430 asynchronous driver.

Recommended Action Make sure there is sufficient memory available in the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CIRRUS_PM-3-NOTCD2430: Device reported [hex]

Explanation The network module hardware has reported that a non-low-speed port module has been detected.

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

Error Message
%CIRRUS_PM-3-UNKNOWNPLATFORM: Unknown Platform type to support CD2430 interfaces

Explanation  The network module is incompatible with the current platform into which it is plugged.

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

CLEAR Messages

The following are clear facility error messages.

Error Message
%CLEAR-5-COUNTERS: Clear counter on [chars] [chars] by [chars]

Explanation  The counters have been cleared on the interface or interfaces.

Recommended Action  No action is required.

Error Message
%CLEAR-5-EXT_COUNT: Clear extended [chars] counters on [chars] by [chars]

Explanation  The extended counters have been cleared on the interface or interfaces.

Recommended Action  No action is required.

CLNS Messages

The following are Open System Interconnection (OSI) Connectionless Network Service (CLNS) error messages.

Error Message
%CLNS-5-ADJCHANGE: [chars]: Adjacency to [chars] ([chars]) [chars], [chars]

Explanation  An IS-IS or NLSP adjacency with a neighboring router has either come up or gone down. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the IS-IS or NLSP process.

Recommended Action  This informational message appears normally as routers and links go up or down. However, unexpected adjacency loss might indicate high error rates or high packet loss in the network and should be investigated.
Error Message
%CLNS-5-ADJCLEAR: [chars][chars]: All [atalk_address] adjacencies cleared

Explanation All IS-IS or NLSP adjacencies of the specified type have been cleared. This message appears only if the log-adjacency-changes command is configured for the IS-IS or NLSP process.

Recommended Action This informational message appears as a normal side effect of appropriate console or configuration commands.

Error Message
%CLNS-4-AREALOST: Too many IS-IS areas--can’t route to area [chars]

Explanation IS-IS allows only three area addresses per area. Multiple routers with at least one area address in common merge all of their configured area addresses into a single set. If the resulting set includes more than three area addresses, this message appears and indicates that there will be a loss of connectivity to the specified area.

Recommended Action Reconfigure the network so that the area has fewer area addresses, or split the area into multiple areas.

Error Message
%CLNS-3-BADIFNUM: ISIS: Bad if number, pdb [hex], idb [hex], if [hex]

Explanation An internal error has occurred in the IS-IS or NLSP. An inconsistency was detected in an internal data structure related to tracking protocol or interface state, possibly related to the enabling or disabling of the protocol on an interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CLNS-3-BADPACKET: [chars]: [chars], [chars][chars] from [chars] ([chars])

Explanation An invalid packet was received from a neighboring router.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CLNS-1-BKUPERR: ISIS: [chars] in [hex], ndb_next [hex], ndb_prev [hex], lsp_next [hex], lsp_prev [hex], metric [hex], index [dec], [chars] [hex]

Explanation  An internal error has occurred in the maintenance of the IS-IS backup route table.

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

Error Message
%CLNS-3-CKSUMERR: [chars]: L[dec] LSP [chars] database checksum error, restarting

Explanation  A hardware or software error has occurred.

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

Error Message
%CLNS-4-DUPEXPORT: possible duplicate system ID [chars] detected

Explanation  A configuration error has occurred.

Recommended Action  Correct one of the duplicate IDs.

Error Message
%CLNS-4-EDATFAIL: Encapsulation failed, dst= [chars]

Explanation  This message can occur when an interface is down and a static neighbor entry exists in the CLNS routing table of the system. If this is not the case, an internal software error has occurred.

Recommended Action  Check the interface. If the interface is not down and no static neighbor entry exists for that interface, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CLNS-1-LINKERR: ISIS: [chars] in [hex], lsp_next [hex], lsp_prev [hex], index [dec], ver [dec], [chars] [hex]

Explanation  An internal error has occurred in the maintenance of IS-IS or NLSP LSP linkages.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CLNS-3-LSPCHAIN: [chars]: non-null [chars] pointer [hex] on freed LSP, index [dec]

Explanation  An internal error has occurred in the IS-IS or NLSP.

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

Error Message
%CLNS-4-LSPCKSUM: [chars]: Bad L[dec] LSP [chars] checksum [hex] received on [chars], length [dec], should be [hex], bad count [dec]

Explanation  An LSP was received either for IS-IS or NLSP, which failed an internal data checksum, but which passed the data-link checksum. The interface on which the LSP was received is indicated, along with the total count of checksum errors received, the LSP ID, and the level of the failing LSP. Usually this message indicates data corruption occurring on a link but also might indicate data corruption in the memory of a neighboring router.

Recommended Action  If the error is in the memory of a neighboring router, the problem will correct itself within 15 minutes. That router will detect its internal error and regenerate the corrupted data. This case is usually indicated by a single LSP ID appearing repeatedly in these messages. The same LSP ID might appear in this message on other routers as well. If data-link corruption has caused the error, check the link for errors and deal with them appropriately. This case is usually indicated by a number of different LSP IDs appearing in these messages.

Error Message
%CLNS-3-LSPDB: [chars]: Inconsistent LSPIX entry, lsp [hex], index [dec], ixentry [hex], ixentry->lsp [hex]

Explanation  An internal error has occurred in the IS-IS or NLSP.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CLNS-3-LSPFULL: [chars]: L[dec] LSP filled to capacity, dropping routes

Explanation  A hardware or software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CLNS-3-LSPIXARRMATCH: [chars]: LSPix entry [dec] mismatch with LSP [hex], LSP [chars] is [dec], entry [dec]

Explanation  An internal error has occurred in the IS-IS or NLSP.

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

Error Message
%CLNS-3-LSPIXARRNULL: [chars]: LSPix entry [dec] should be null, is [hex]

Explanation  An internal error has occurred in the IS-IS or NLSP.

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

Error Message
%CLNS-3-LSPIXHEAD: [chars]: LSPix [chars] [dec] head [hex] doesn’t match first prev [hex]

Explanation  An internal error has occurred in the IS-IS or NLSP.

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

Error Message
%CLNS-3-LSPTOOBIG: [chars]: L[dec] LSP [chars] size [dec] bigger than interface [chars] MTU [dec], LSP dropped

Explanation  A software or hardware error has occurred.

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

Error Message
%CLNS-5-MULTICAST: [chars]: [chars]cast address in use on [chars]

Explanation  An NLSP adjacency with a neighboring router has either come up or gone down. The message describes whether the NLSP multicast address is in use for future updates that are sent on the LAN. This message appears only if the log-adjacency-changes command is configured for the NLSP process.

Recommended Action  This message is primarily informational and appears normally as routers and links go up or down.
Error Message
%CLNS-3-NSAPES: Invalid NSAP type in ES table: [hex] for [chars]

Explanation  An internal software error has occurred.

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

Error Message
%CLNS-4-NSAPIS: Invalid NSAP type in IS table: [hex] [dec]

Explanation  An internal software error has occurred.

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

Error Message
%CLNS-3-ONLIST: ISIS: entry already threaded, prev [hex], next [hex], area = [chars], index [dec], ver [dec], lsp area = [chars], lspid [chars], addr [IP_address] [IP_address]

Explanation  An internal error has occurred in the IS-IS or NLSP.

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

Error Message
%CLNS-4-REDIRECT: Redirect found for non-route entry, dst= [chars], next-hop= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%CLNS-3-TENT: [chars]: [chars]

Explanation  An internal error has occurred in the IS-IS or NLSP.

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

The following are Cisco 6400 network clocking error messages.

**Error Message**
%CLOCKSW-3-BOGUS_PLIMTYPE: [chars]: bogus plimtype [hex]

**Explanation** An internal error has occurred in the IDB. This interface can not be selected as a network clocking source.

**Recommended Action** Select another interface as the network clocking source.

**Error Message**
%CLOCKSW-3-CLOCK_ALL_FAIL: All selected network clock sources have failed

**Explanation** All of the configured network clocking sources have failed.

**Recommended Action** Restore proper operation to one or more of the selected interfaces.

**Error Message**
%CLOCKSW-3-CLOCK_FAIL: Network clock source [chars], priority [dec], failure

**Explanation** The specified network clocking source has failed.

**Recommended Action** Restore proper operation to the selected interface.

**Error Message**
%CLOCKSW-6-CLOCK_OK: Network clock source [chars], priority [dec], ok

**Explanation** The specified network clocking source is operational.

**Recommended Action** No action is required.

**Error Message**
%CLOCKSW-6-PFQ_PLL_BYPASS: Bypassing FC-PFQ PLL

**Explanation** The FC-PFQ clock is nonoperational and is being bypassed.

**Recommended Action** No action is required.
Error Message
%CLOCKSW-6-SWITCH_SOURCES: Switching from [chars] to [chars] at priority level [dec]

Explanation The network clock source has changed from one source to another.

Recommended Action No action is required.

CLS Messages

The following are Cisco link services (CLS) error messages.

Error Message
%CLS-3-BOGUSOP: Unknown CLS verb for [chars] context, DlcOpcodeT=[hex]

Explanation An invalid opcode was generated by the DLC for the STN or CEP.

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

Error Message
%CLS-3-CLSFAIL: CLS: Assertion failed: [chars]

Explanation A software or hardware error has occurred.

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

Error Message
%CLS-3-CLSMSG: [chars]

Explanation A software error was detected while CLSIMsg objects were being manipulated.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Cisco link services (CLS) driver error messages.

**Error Message**

%CLSDR-3-ERRRTN: [chars] failed error [hex]

**Explanation**  An error has been returned from CLSI to the DLU because CLSI did not perform the action desired by the DLU.

**Recommended Action**  Refer to the CLSI software documentation for more information about this error. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%CLSDR-3-INCORRECTPORT: Incorrect port pointer in USapId

**Explanation**  CLSI has returned an incorrect port pointer in the USapID.

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

**Error Message**

%CLSDR-3-MSGERR: [chars] couldn’t get a message

**Explanation**  The DLU could not send a correct message to (CLSI) because the message was formed incorrectly. CLSI will not perform the desired action.

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

**Error Message**

%CLSDR-3-NOCEP: Cannot found cep in free pool

**Explanation**  A software or hardware error has occurred.

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

%CLSDR-3-NOCLSSERVER: unable to start the Server process

**Explanation**  Could not start the CLSDRIVER process, possibly because of a resource problem. The subsystem using the CLSDRIVER does not work.

**Recommended Action**  Remove and then restore the DLU in the configuration file and try to reboot the system. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%CLSDR-3-NODLUCREATE: Cannot create DLU for this type [dec]

**Explanation**  The CLSDRIVER does not understand the DLU type. Currently, only STUN uses the CLSDRIVER. Any other value results in an error.

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

**Error Message**

%CLSDR-3-NOINIT: CLSDRIVER not initialized

**Explanation**  A CLSDRIVER initialization has failed. Trying to use the driver now results in an error condition.

**Recommended Action**  Remove and then restore the DLU in the configuration file and try to reboot the system. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%CLSDR-3-NOPORTCREATE: Cannot create PORT structure

**Explanation**  The CLSDRIVER cannot enable this port for processing.

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

**Error Message**

%CLSDR-3-NOREMOVECEP: RemoveCep : Cep [hex] not on list

**Explanation**  The DLU is trying to remove a nonexistent connection endpoint from the internal data structure. This creates a problem in the CEP maintenance logic.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CLSDR-3-NOREMOVEPORT: RemovePort: port [hex] not on list

Explanation  The DLU is trying to remove a nonexistent port from the list of active ports because it does not have the correct list of active ports.

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

Error Message
%CLSDR-3-WRONGMSG: Should never be here, cls message type unknown [hex]

Explanation  The CLS message type is unknown to the DLU.

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

CM622_CM155 Messages

The following are ATM OC12 and QOC3 line card driver error messages.

Error Message
%CM622_CM155-4-ATMCLKINT: ([dec]/[dec]) ATM Clock Internal Set on ([dec]/[dec]) too

Explanation  CM155 ATM Clock Internal is enabled for the other channel on the same framer, and the framer defines one bit for both channels.

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

Error Message
%CM622_CM155-4-FRMROP: Error: ([dec]/[dec]) [chars] (value=[hex])

Explanation  A line card ATM driver framer operation error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CM622_CM155-4-FWCKSUM: [chars] SAR firmware selftest failure (expected [hex], obtained [hex])

Explanation  A line card ATM SAR firmware checksum error has occurred.

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

Error Message
%CM622_CM155-4-OP: Error: ([dec]/[dec]) [chars]

Explanation  A line card ATM driver general operation error has occurred.

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

Error Message
%CM622_CM155-4-RPCMD: [chars] command error: [chars]

Explanation  A line card ATM driver handles RP command error has occurred.

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

Error Message
%CM622_CM155-4-RXSARIND: ([dec]/[dec]) RX SAR doing [chars] error: [chars]
(indication=[hex] [hex] [hex])

Explanation  A line card ATM driver RX SAR indication error has occurred.

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

Error Message
%CM622_CM155-4-SAROP: [chars] SAR doing [chars] error: [chars]

Explanation  A line card ATM driver SAR operation error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CM622_CM155-4-TXSARIND: TX SAR [chars] command error: [chars] (indication=[hex])

Explanation  A line card ATM driver TX SAR indication error has occurred.

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

Error Message
%CM622_CM155-4-VCCLOSE: ([dec]/[dec]) VC:[int] is close pending

Explanation  The VC is in the TX SAR close-pending state.

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

Error Message
%CM622_CM155-4-VCCMD: ([dec]/[dec]) VC:[int] [chars] error (cause: [chars])

Explanation  A CM622/CM155 ATM SAR VC operation error has occurred.

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

Error Message
%CM622_CM155-4-VCTYPE: ([dec]/[dec]) VC:[int] unsupported vc encapsulation type=[int]

Explanation  A CM622/CM155 ATM SAR VC operation error has occurred.

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

The following are Call Manager Application error messages.

Error Message
%CMAPP-6-PROCESS_CREATION_FAILED: Cannot create Call Manager Application process

Explanation The Call Manager Application process has not been created.

Recommended Action Ensure that enough free memory is available to create the Call Manager Application process. Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

CMCC Messages

The following are Cisco Mainframe Channel Connection (CMCC) interfaces error messages.

Error Message
%CMCC-6-ADAPTERCHNG: Interface [chars]: adapter type changed from [chars] to [chars]

Explanation The interface has reported a different interface type than it previously reported. The interface should not report a different interface type unless the CMCC card was removed and replaced with one that has an interface of the reported type.

Recommended Action No action is required.

Error Message
%CMCC-4-BADENCAPSZ: Interface [chars]: encapsulated msg size ([dec]) exceeds max ([dec]); truncated.

Explanation An encapsulated control message had a size greater than the maximum expected size. The message has been truncated.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CMCC-3-CFGCMDDROPPED: Config queue is full, command was dropped, slot [dec]

Explanation  A configuration command was resent, but the receiving queues were still full. Therefore, the command was dropped.

Recommended Action  Issue the debug channel events command and try each of the following tasks in sequence. If an action corrects the problem, the remaining tasks do not need to be performed.

- Reissue the configuration command.
- Clear the interface using the clear interface command.
- Reload the microcode.
- Reload the router.

If the error recurs, copy the error message exactly as it appears. Record the output from the following commands:

- show tech
- show log

Provide this information to your Cisco technical support representative.

Error Message
%CMCC-4-CFGFAIL: Interface [chars]: configuration command [chars] [chars] failed

Explanation  An error has occurred while sending the configuration command to the CMCC card, or the CMCC has negatively acknowledged the command

Recommended Action  Reissue the configuration command.

Error Message
%CMCC-4-DTRFAIL: Interface [chars]: Channel-protocol [chars] cmd failed; resetting to default

Explanation  The channel-protocol configuration command that was sent after a reset has failed to complete successfully. The channel data transfer rate was reset to the default value.

Recommended Action  Reissue the channel-protocol configuration command.

Error Message
%CMCC-3-IPCBUFFAIL: Unable to obtain IPC resources

Explanation  The IPC service used by the TN3270 Server on the CMCC could not obtain a buffer.

Recommended Action  The CMCC will not load properly. Try the reload command again. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CMCC-3-IPCDNSFAIL: DNS lookup failed - [chars]

Explanation  The IPC service used by the TN3270 Server on the CMCC has experienced a DNS lookup failure.

Recommended Action  Verify that the proper revisions of code are selected.

Error Message
%CMCC-4-IPCDNSNOIPADDR: DNS lookup failed - the DNS server has no entry for hostname [chars]

Explanation  The IPC service used by the TN3270 Server on the CMCC has experienced a DNS lookup failure.

Recommended Action  Verify that the DNS server entries are up to date.

Error Message
%CMCC-5-IPCDNSQUERYTIMEDOUT: DNS lookup failed - query to DNS server [IP_address] timed out

Explanation  The IPC service used by the TN3270 Server on the CMCC has experienced a DNS lookup failure.

Recommended Action  Check the status of the DNS server.

Error Message
%CMCC-5-IPCDNSSERVERUNREACHABLE: DNS lookup failed - DNS server [IP_address] is unreachable

Explanation  The IPC service used by the TN3270 Server on the CMCC has experienced a DNS lookup failure.

Recommended Action  Check for available routes to the DNS servers.

Error Message
%CMCC-3-IPCINITFAIL: Unable to initialize IPC [chars] services

Explanation  The IPC service used by the TN3270 Server on the CMCC has failed to initialize.

Recommended Action  The CMCC will not load properly. The router must be reloaded to clear the problem.
**Error Message**

%CMCC-3-IPCINVALID: Invalid IPC request ([dec]) received from ([hex])

**Explanation**  The IPC service used by the TN3270 Server on the CMCC has received an invalid message.

**Recommended Action**  Verify that the proper revisions of code are selected.

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**Error Message**

%CMCC-3-NODEED: Interface [chars]: No elements avail for msg ([hex] [hex]); interface reset.

**Explanation**  An encapsulated control message has arrived, but no elements were available to receive it. It is likely that a configuration will be in a PENDING state now. An interface reset has been attempted to clear this condition.

**Recommended Action**  Issue the `debug channel events` command and try each of the following tasks in sequence. If an action corrects the problem, the remaining tasks do not need to be performed.

- Reissue the configuration command.
- Clear the interface using the `clear interface` command.
- Reload the microcode.
- Reload the router.

If the error recurs, copy the error message exactly as it appears. Record the output from the following commands:

- `show tech`
- `show log`

Provide this information to your Cisco technical support representative.

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**Error Message**

%CMCC-3-NOENABLE: Interface [chars]: No pre-allocated buffers available; enable not sent.

**Explanation**  An attempt to get a preallocated buffer for the `enable` command was unsuccessful. The interface will not be enabled.

**Recommended Action**  Issue the `debug channel events` command and try each of the following tasks in sequence. If an action corrects the problem, the remaining tasks do not need to be performed.

- Reissue the configuration command.
- Clear the interface using the `clear interface` command.
- Reload the microcode.
- Reload the router.
If the error recurs, copy the error message exactly as it appears. Record the output from the following commands:

- show tech
- show log

Provide this information to your Cisco technical support representative.

**Error Message**

%CMCC-4-NOPREQ: Interface [chars]: Unable to pre allocate response element; cfg not sent

**Explanation** An attempt to allocate a buffer for the configuration response, or the configuration state change request, was unsuccessful. The configuration request was not sent.

**Recommended Action** The configuration command must be reissued.

**Error Message**

%CMCC-3-RSETFAIL: Interface [chars]: Error ([hex]) [chars]

**Explanation** An error has occurred while sending an interface enable or disable command.

**Recommended Action** The interface was reset by the software, and the condition has been fixed. If the condition has not been fixed, issue the `debug channel events` command and try each of the following tasks in sequence. If an action corrects the problem, the remaining tasks do not need to be performed.

- Reissue the configuration command.
- Clear the interface using the `clear interface` command.
- Reload the microcode.
- Reload the router.

If the error recurs, copy the error message exactly as it appears. Record the output from the following commands:

- show tech
- show log

Provide this information to your Cisco technical support representative.

**Error Message**

%CMCC-3-SMALLENCAPSZ: Interface [chars]: encaps msg size ([dec]) smaller than min ([dec]); dropped.

**Explanation** An encapsulated control message had a size smaller than the minimum expected size. The message was dropped.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CMCC-3-UNKENCAP: Interface [chars]: unknown encapsulated msg([dec]) len([dec])

Explanation  An encapsulated control message had an unknown encapsulation type. The message was dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

CM_DSPRM Messages

The following are Digital Signal Processor Resource Manager (DSPRM) error messages.

Error Message
%CM_DSPRM-1-INTERNALERROR: DSPRM internal error[chars]:[dec]

Explanation  The router or access server has detected an internal error.

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

Error Message
%CM_DSPRM-1-NODSPRMEVENTS: DSPRM event unavailable

Explanation  The router or access server could not allocate internal resources.

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

Error Message
%CM_DSPRM-1-NOIOSBUFFERS: IOS buffer pool unavailable [chars]:[dec]

Explanation  The router or access server could not allocate internal resources.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CM_DSPRM-1-NOIOSMEMORY: IOS memory unavailable [[chars]:[dec]]

Explanation  The router or access server could not allocate memory for internal data structures.

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

CM_MONITOR Messages

The following are UBR900 Cable Access Router Personal Monitor error messages.

Error Message
%CM_MONITOR-5-DNS_KILL: Terminating DNS process

Explanation  A hardware or software error has occurred.

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

Error Message
%CM_MONITOR-5-DNS_RESP: Sending DNS response to [IP_address] (request was for [IP_address])

Explanation  A hardware or software error has occurred.

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

Error Message
%CM_MONITOR-5-DNS_START: Starting DNS process

Explanation  A hardware or software error has occurred.

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

The following are CNS Configuration Change Agent error messages.

Error Message
%CNS_AGENT_CFGCHG-3-SRVR_ERROR: CNS Config Change Agent cannot be started

Explanation The CNS Configuration Change Agent cannot be started. There are many possible reasons for this error.

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

Error Message
%CNS_AGENT_CFGCHG-6-TESTAPP: ...CNS Config Change Agent=[dec] Callback ...

Explanation This is an informational message only.

Recommended Action No action is required.

CNSES Messages

The following are CNS Event Service Client error messages.

Error Message
%CNSES-4-NODNS: DNS lookup failed.

Explanation The attempt to look up the IP address of the router through DNS has failed.

Recommended Action Configure DNS on the router or use the ip host command.

Error Message
%CNSES-4-NODNS_USEHOST: DNS lookup failed, use Hostname "[chars]" instead.

Explanation The attempt to look up the IP address of the router through DNS has failed.

Recommended Action Configure DNS on the router or use the ip host command.
Error Message
%CNSES-3-SOCSELECT: Server socket listener failed: port=[dec] errno=[dec]

Explanation  The router was unable to function as a TCP server. There are many possible reasons for this error.

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

Error Message
%CNSES-3-SRVR_ERROR: CNS/AD Event Service Server cannot be started

Explanation  The attempt to start the CNS/AD Event Service Server has failed. There are many possible reasons for this error.

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

Error Message
%CNSES-6-TESTAPP: ...Test App app_id=[dec] Callback ...

Explanation  The local IP address has been found.

Recommended Action  No action is required.

COMP Messages

The following are point-to-point compression error messages.

Error Message
%COMP-3-BADCOMP: Interface [chars] Bad status returned from packet compression operation

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%COMP-3-BADCRC: Interface [chars] Decompression check-byte data is incorrect

Explanation  An internal software error has occurred.

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

Error Message
%COMP-3-BADSEQNUM: Interface [chars] Unexpected compressed packet sequence number

Explanation  The router encountered an unexpected packet sequence number. Possible reasons for this error are a dropped packet or a transient line error.

Recommended Action  This problem should self-correct. No action is necessary.

Error Message
%COMP-3-COMPERR: [chars]: COMPRESS: (stac error!) status: [dec], size in: [dec], size out: [dec]

Explanation  An internal software error has occurred.

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

Error Message
%COMP-3-CONFIGBAD: Interface [chars] Compression internal configuration error

Explanation  An internal software error has occurred.

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

Error Message
%COMP-3-DESTEXST: Interface [chars] Destination decompression buffer ran out of space

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%COMP-5-NOBUF: Interface [chars] [chars]

Explanation  Interface serial0 compression getbuffer has failed, causing LAPB retransmissions.

Recommended Action  Configure additional buffer size.

Error Message
%COMP-3-NOEND: Interface [chars] No end-bit detected on compressed packet

Explanation  An internal software error has occurred.

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

Error Message
%COMP-3-SIZEBAD: Interface [chars] Decompression size error

Explanation  One interface is configured for predictor compression, but the other interface is not.

Recommended Action  Configure both interfaces for predictor compression.

Error Message
%COMP-3-SRCREMAINS: Interface [chars] Not all packet data was used by decompressor

Explanation  An internal software error has occurred.

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

Error Message
%COMP-3-SUBBLOCKERR: Interface [chars] compression subblock creation failed.

Explanation  An internal software error has occurred.

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

Error Message
%COMP-3-SYNCBAD: Interface [chars] Decompression sync error

Explanation One interface is configured for predictor compression, but the other interface is not.

Recommended Action Configure both interfaces for predictor compression.

Error Message
%COMP-3-VERSIONBAD: Interface [chars] Compression Version mismatch expected [hex] received [hex]

Explanation One interface is configured for predictor compression, but the other interface is not.

Recommended Action Configure both interfaces for predictor compression.

CONTROLLER Messages

The following are controller error messages.

Error Message
%CONTROLLER-5-CALLDROP: Controller [chars], [chars]

Explanation A software or hardware error has occurred.

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

Error Message
%CONTROLLER-2-CRASHED: Interface Processor in slot [dec] not responding ([hex]): shutting it down

Explanation A controller has stopped responding to commands over the CBUS and has been put into shutdown mode.

Recommended Action Reenable the controllers by issuing the no shutdown configuration command on all controllers on the card, or hotswap out the bad card and install the new one. You must still manually no shut the controllers.
Error Message
%CONTROLLER-2-FIRMWARE: Controller [chars], [chars]

Explanation  A software or hardware error has occurred.

Recommended Action  Consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If this does not solve the problem, replace the affected hardware. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CONTROLLER-5-HDLC_INSUFF_RESOURCE: Insufficient HDLC resources to enable channel [dec]

Explanation  A limited number of HDLC channels can be allocated for this trunk.

Recommended Action  Check the number of HDLC resources supported for this trunk card. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CONTROLLER-5-LOOPSTATUS: Controller [chars], [chars]

Explanation  This message is a configurable controller loopback status message and is informational only.

Recommended Action  No action is required.

Error Message
%CONTROLLER-2-NOTFOUND: For controller [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CONTROLLER-5-REMLOOP: Controller [chars], remote loop [chars] [chars]

Explanation  A configurable controller has entered remote loopback.

Recommended Action  No action is required.
COT Messages

Error Message
%CONTROLLER-5-UPDOWN: Controller [chars], changed state to [chars]

Explanation  A configurable controller has changed its state.

Recommended Action  No action is required. If the controller changes its state continually, ensure that you are using the appropriate Cisco cables. If line drivers are being used, remove them. Perform loopback tests on the controller to troubleshoot the issue further.

COT Messages

The following are continuity test (COT) error messages.

Error Message
%COT-1-DSP_MEM: [chars]

Explanation  No memory was allocated for the COT DSP event queue.

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

Error Message
%COT-1-DSP_Q: [chars]

Explanation  A DSP event was not added to the COT DSP event queue.

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

Error Message
%COT-1-INITSYS: [chars]

Explanation  A periodic process, chunk pool, COT queue, or DSP queue for COT was not created.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are compression service adapter (CSA) error messages.

**Error Message**

%CPAD-1-ERROR: [chars]: [chars]

**Explanation** An error has occurred in the application that is using the CSA.

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

**Error Message**

%CPAD-1-INITFAIL: Slot [dec]: [chars]

**Explanation** The CSA driver has failed to initialize at the specified point.

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

**Error Message**

%CPAD-1-NOMEMORY: [chars] creation failed for slot [dec]

**Explanation** The CSA driver, in its initialization phase, could not allocate memory for the specified data structure.

**Recommended Action** Consider adding more shared memory. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%CPAD-1-PLXINIT: bay [dec] Invalid vendor/device id [dec]

**Explanation** The CSA driver, in its initialization phase, has encountered a communication failure with the CSA in the specified bay.

**Recommended Action** Consider reseating the specified CSA. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CPAD-1-SHUTCARD: bay [dec]: Deactivating card

Explanation  An error has occurred during initialization. The CSA is being deactivated.

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

Error Message
%CPAD-6-SHUTDOWN: [chars] shutting down

Explanation  The specified CSA is shutting down. It may have been physically removed.

Recommended Action  No action is required.

Error Message
%CPAD-6-STARTUP: [chars] starting up

Explanation  The specified CSA has initialized successfully.

Recommended Action  No action is required.

CPM Messages

The following are Combination Port Module (CPM) device driver error messages.

Error Message
%CPM-3-DISCOVER: CPM at slot [dec]: PCI discovery failed count = [dec]

Explanation  One of the interface controller devices on the module did not initialize properly.

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

Error Message
%CPM-3-INCORRECT_ID: CPM at slot [dec]: PCI device not supported

Explanation  An interface controller device did not report the correct PCI device ID.

Recommended Action  Power down, reinsert the port module, and reboot. If the message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
CRYPTO Messages

The following are encryption error messages.

Error Message
%CRYPTO-0-AUDITFAIL: Encryption audit check found the wrong level of encryption in this image

Explanation The audit check that verifies encryption entitlement within Cisco IOS images has found either encryption in a nonencryption image or the wrong value within a Cisco IOS encryption image. Use of the encryption image may violate U.S. export laws and regulations.

Recommended Action Contact Cisco to obtain a replacement Cisco IOS encryption image.

Error Message
%CRYPTO-4-AUDITWARN: Encryption audit check could not be performed

Explanation The audit check verifying encryption entitlement within the Cisco IOS image could not be performed because of an incomplete system configuration.

Recommended Action Manually verify that this Cisco IOS image is entitled to contain encryption.

Error Message
%CRYPTO-3-BADFP: Certificate fingerprint mismatch for certificate - certificate not accepted

Explanation The fingerprint of a certificate received from a CA did not match a fingerprint saved in NVRAM. The certificate may not be valid.

Recommended Action Contact the CA administrator to compare the certificate fingerprint manually.

Error Message
%CRYPTO-3-BADMAGIC: Bad [chars] magic number ([hex]).

Explanation An internal software error has occurred.

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

Error Message
%CRYPTO-3-CERTCHECK: Certificates with invalid status have been detected!!!

Explanation After the system checked the certificates saved in the memory with the CRL, it detected invalid certificates.

Recommended Action Check the certificate status and contact the CA administrator. Certificate enrollment may be required.
Error Message
%CRYPTO-6-CERTFAIL: Certificate enrollment failed.

Explanation The certificate enrollment has encountered a fatal error.

Recommended Action Contact the CA administrator.

Error Message
%CRYPTO-6-CERT_FATAL_ERR: [chars]

Explanation The certificate enrollment has encountered a fatal error and will abort.

Recommended Action Contact the CA administrator.

Error Message
%CRYPTO-6-CERTPENDING: Enter manual authentication ...

Explanation The request is waiting for approval by the CA administrator.

Recommended Action If the request remains pending for an unacceptably long time, contact the CA administrator.

Error Message
%CRYPTO-6-CERTREJECT: Certificate enrollment request was rejected by Certificate Authority

Explanation The previously sent certificate enrollment request has been received by the CA. The CA has rejected the enrollment request.

Recommended Action Contact the CA administrator.

Error Message
%CRYPTO-6-CERTRET: Certificate received from Certificate Authority

Explanation The previously sent certificate enrollment request has been received by the CA. The CA has issued the certificate and sent back a copy.

Recommended Action No action is required.

Error Message
%CRYPTO-3-CERTRETFAIL: Certificate enrollment failed.

Explanation The certificate enrollment transaction has failed because of an internal error.

Recommended Action Contact a CE administrator.
Error Message
%CRYPTO-6-CET_END_OF_LIFE: CRYPTO: CET connection msg in an IPSEC_ONLY_IMAGE

Explanation The CET message has been rendered obsolete.

Recommended Action Reconfigure the peer to use IPSec.

Error Message
%CRYPTO-6-ENROLL_CANCEL: Certificate enrollment is cancelled.

Explanation The current certificate enrollment has been canceled.

Recommended Action This message occurs as a response to the no crypto ca enroll or no crypto ca trust-point commands. If this was a manually initiated enrollment, use the crypto ca enroll command to reenter the enrollment process at a later time. Entering the no crypto ca enroll command to cancel an enrollment session does not turn off automatic enrollment if it was on. The router does not need to be restarted.

Error Message
%CRYPTO-3-GETCACERT: Failed to find CA cert in memory.

Explanation The CA certificate was not found in memory.

Recommended Action Check the status of the certificate and contact the CA administrator.

Error Message
%CRYPTO-3-GETCARACERT: Failed to receive RA/CA certificates.

Explanation CA or RA certificates could not be parsed or processed.

Recommended Action Check the status of the certificate, and contact the CA administrator.

Error Message
%CRYPTO-6-GETCERTINITIAL: Certificate enrollment failed in manual mode

Explanation The current certificate enrollment has failed in manual mode.

Recommended Action Contact the CA administrator.

Error Message
%CRYPTO-3-GETCRL: Query the Certificate Revocation List from CA failed.

Explanation The attempt to query the CRL from the CA server has failed for one of several possible reasons.

Recommended Action Contact the CA administrator.
Error Message
%CRYPTO-3-HTTPSEND: Failed to send out message to CA server.

Explanation A failure to send out a message to the CA server was caused by an HTTP transaction.

Recommended Action Check the HTTP connection to the CA server.

Error Message
%CRYPTO-3-IKEINIT: [chars]

Explanation An IKE initialization error has occurred.

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

Error Message
%CRYPTO-6-IKE_TED_BAD_REPLY: Received TED reply that did not correspond to a TED probe

Explanation The received TED reply does not match the TED probe that is currently outstanding. This error might be a one-time occurrence caused by a delay of the TED reply or by ill-formed packets that were sent by the peer. Ill-formed packets sent by the peer may indicate a hostile event.

Recommended Action If the problem occurs more than once, contact the administrator of the peer.

Error Message
%CRYPTO-6-IKMP_ADD_KEY_FAIL: Unable to add public key for [chars] ([IP_address]) to key ring

Explanation Keys are stored in key rings on the router. An attempt to add another key has failed.

Recommended Action Check local key rings.

Error Message
%CRYPTO-6-IKMP_AUTH_FAIL: Authentication method [dec] failed with host [IP_address]

Explanation The IKE process was unable to authenticate its security association with its remote peer.

Recommended Action Contact the administrator of the remote peer.
Error Message
%CRYPTO-6-IKMP_BAD_CERT_USE: Certificate for peer at [IP_address] prohibits attempted use ([chars]).

Explanation X.509v3 certificates can contain usage restrictions that limit the use of the certificate for signatures or for key exchange (encryption). The peer attempted to use the certificate in a manner that violated these usage restrictions.

Recommended Action Contact the remote peer and the CA of the remote peer.

Error Message
%CRYPTO-6-IKMP_BAD_DOI_NOTIFY: DOI of [dec] in notify message from [IP_address]

Explanation The DOI field in notify messages gives the receiver a context in which to understand the message being notified. This DOI value is not understood, and therefore the message cannot be understood.

Recommended Action If this situation persists, contact the remote peer.

Error Message
%CRYPTO-6-IKMP_BAD_DOI_SA: DOI value [dec] from SA offer from [IP_address] is invalid

Explanation The DOI field of an SA offer defines how to parse the fields. The SAs that have an unknown DOI cannot be parsed.

Recommended Action If this situation persists, contact the administrator of the remote peer.

Error Message
%CRYPTO-4-IKMP_BAD_MESSAGE: IKE message from [IP_address] failed its sanity check or is malformed

Explanation A quick verification check is done on all received ISAKMP messages to ensure that all component payload types are valid and that the sum of their individual lengths equals the total length of the received message. This message indicates a failed verification check. Persistently bad messages could mean a denial-of-service attack or bad decryption.

Recommended Action Contact the administrator of the remote peer.

Error Message
%CRYPTO-6-IKMP_CRYPT_FAILURE: IKE (connection id [dec]) unable to [chars] packet

Explanation Encryption or decryption on a particular IKE thread has failed.

Recommended Action Contact the administrator of the remote peer.
Error Message
CRYPTO-5-IKMP_INVAL_CERT: Certificate received from [IP_address] is bad: [chars]

Explanation The certificate given by the remote peer either has been revoked or has expired (the certificate is invalid) or the signature check on the certificate has failed (invalid signature).

Recommended Action Contact the CA of the remote peer. The CA certificate may be invalid.

Error Message
CRYPTO-6-IKMP_MODE_FAILURE: Processing of [chars] mode failed with peer at [IP_address]

Explanation Negotiation with the remote peer has failed.

Recommended Action If this situation persists, contact the remote peer.

Error Message
CRYPTO-6-IKMP_NO_ID_CERT_ADDR_MATCH: ID of [IP_address] (type [dec]) and certificate addr with [IP_address]

Explanation ISAKMP entities assume an identity to inform the peer of who or what they are. The claimed identity did not match the information taken from the IP address of the peer certificate.

Recommended Action If this situation persists, contact the remote peer.

Error Message
CRYPTO-6-IKMP_NO_ID_CERT_DN_MATCH: ID of [chars] (type [dec]) and certificate DN with [chars]

Explanation ISAKMP entities assume an identity to inform the peer of who or what they are. The claimed identity did not match the information taken from the name on the peer certificate.

Recommended Action If this situation persists, contact the remote peer.

Error Message
CRYPTO-6-IKMP_NO_ID_CERT_FQDN_MATCH: ID of [chars] (type [dec]) and certificate fqdn with [chars]

Explanation ISAKMP entities assume an identity to inform the peer of who or what they are. The claimed identity did not match the information taken from the FQDN of the peer certificate.

Recommended Action If this situation persists, contact the remote peer.
Error Message

%CRYPTO-6-IKMP_NO_ID_CERT_USER_FQDN_MATCH: ID of [chars] (type [dec]) and certificate user fqdn with [chars]

Explanation ISAKMP entities assume an identity to inform the peer of who or what they are. The claimed identity did not match the information taken from the FQDN of the peer certificate.

Recommended Action If this situation persists, contact the remote peer.

Error Message

%CRYPTO-4-IKMP_NO_SA: IKE message from [IP_address] has no SA and is not an initialization offer

Explanation IKE maintains the current state for a communication in the form of security associations. No security association exists for the specified packet, and it is not an initial offer from the peer to establish one. This situation could indicate a denial-of-service attack.

Recommended Action Contact the remote peer and the administrator of the remote peer.

Error Message

%CRYPTO-6-IKMP_NOT_ENCRYPTED: IKE packet from [IP_address] was not encrypted and it should’ve been.

Explanation A portion of the IKE is unencrypted, and a portion is encrypted. This message should have been encrypted but was not.

Recommended Action Contact the remote peer.

Error Message

%CRYPTO-3-IKMP_PEER_INIT_FAILURE: IKE failed to create IKE peer tree.

Explanation IKE has failed to allocate memory for the IKE peer tree.

Recommended Action More DRAM may be required in order to run the image.

Error Message

%CRYPTO-4-IKMP_PKT_OVERFLOW: ISAKMP message from [IP_address] larger ([dec]) than the UDP packet length ([dec])

Explanation ISAKMP messages are carried in UDP packets and have their own message length field. The message length field of this message was greater than the length of the UDP packet. This situation could indicate a denial-of-service attack.

Recommended Action Contact the remote peer and the administrator of the remote peer.
Error Message
%CRYPTO-6-IKMP_SA_NOT_AUTH: Cannot accept Quick Mode exchange from [IP_address] if SA is not authenticated!

Explanation Although the IKE security association with the remote peer was not authenticated, the peer attempted to begin a Quick Mode exchange. This exchange can be performed only with an authenticated security association.

Recommended Action Contact the remote peer.

Error Message
%CRYPTO-6-IKMP_SA_NOT_OFFERED: Remote peer [IP_address] responded with attribute [chars] not offered or changed

Explanation IKE peers negotiate policy by having the initiator offer a list of possible protection suites. The responder has returned a type of protection suite that the initiator did not offer.

Recommended Action Contact the remote peer.

Error Message
%CRYPTO-6-IKMP_UNK_EXCHANGE: IKE peer at [IP_address] sent a message with unknown exchange [dec]

Explanation IKE performs actions on messages based on defined exchanges. The message that was received had an unknown exchange.

Recommended Action Contact the administrator of the remote peer.

Error Message
%CRYPTO-3-INVALIDCACERT: Failed to process CA certificate.

Explanation The CA certificate received from the CA server could not be processed.

Recommended Action Use the parser command and try again to process the certificate.

Error Message
%CRYPTO-3-INVALID_INPUT: The input to the parser command is not correct

Explanation An internal software error has occurred.

Recommended Action Reload the router, and reenter the command. File a bug report; to do so, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CRYPTO-6-ISAKMP_MANUAL_DELETE: IKE SA manually deleted. Do 'clear crypto sa peer [IP_address]' to manually clear IPSec SA’s covered by this IKE SA.

Explanation  The IKE SA was deleted by user command. However, keepalives for this connection are enabled, and IPSec SAs covered by this IKE SA still exist. Because this IKE SA is now deleted, these IPSec SAs have no IKE SA covering them.

Recommended Action  Use the parser command to manually delete these IPSec SAs.

Error Message
%CRYPTO-3-PKIINPUT: Wait response from server ....

Explanation  The PKI client is waiting for the response from the server.

Recommended Action  No action is required.

Error Message
%CRYPTO-4-PKT_REPLAY_ERR: [chars] connection id=[dec]

Explanation  The replay processing has failed. The failed replay processing may be a temporary condition caused by the wait for new SAs to be established. In the inbound case, this error may also be caused by an actual replay attack. This activity may be considered a hostile event.

Recommended Action  If the problem appears to be more than a transient one, contact the peer administrator.

Error Message
%CRYPTO-3-POLLCACERT: Polling CA certificate ..... 

Explanation  The system is polling the CA certificate.

Recommended Action  Check if the CA or LDAP server is online.

Error Message
%CRYPTO-3-POLLING: Polling for certificate response...

Explanation  GetCertInitial is polling for a certificate response.

Recommended Action  Wait for the server response or cancel the polling.

Error Message
%CRYPTO-3-POLLRACERT: Polling RA certificate ..... 

Explanation  Polling for an RA certificate.

Recommended Action  Check if the CA or IDAP server is online.
Error Message
%CRYPTO-3-POLLROUTERCERT: Polling Router certificate ......

Explanation Polling for a router certificate.

Recommended Action Check if the CA or IDAP server is online.

Error Message
%CRYPTO-6-PRINTABORT: [chars] caused early termination of show output[chars]

Explanation While a list was being shown, the list or the elements changed. The list or the elements can change if the SAs were renegotiated at the time that the show command was paused, or if a user reconfigured or cleared the SAs. This change is not an error but rather a side effect of a dynamic system.

Recommended Action In general, this message is a warning that the output from the show command is probably incomplete. Reentering the show command should provide the newest information. On a busy system, with SAs that change often, this message may appear frequently.

Error Message
%CRYPTO-3-QUERYCACERT: Failed to query CA certificate.

Explanation A query against the CA certificate from the CA server has failed.

Recommended Action Enter the parser command to verify the CA trusted-root or identity configuration. Ensure that the appropriate server, either the CA or LDAP server, is reachable and that the server is properly configured to respond to the query from the router.

Error Message
%CRYPTO-3-QUERY_KEY: Querying key pair failed.

Explanation An attempt to query the public key and private key using the subject name has failed.

Recommended Action Check the subject name, and resubmit the enrollment request.

Error Message
%CRYPTO-3-QUERYRACERT: Failed to query RA certificate.

Explanation A failure to get RA certificates has occurred.

Recommended Action Check if the CA or IDAP server is online.

Error Message
%CRYPTO-3-QUERYROUTERCERT: Failed to query router certificate.

Explanation A query against the router certificate has failed.

Recommended Action Check if the CA or IDAP server is online.
Error Message
%CRYPTO-6-RANDOM: A pseudo-random number was generated twice in succession

Explanation  A pseudorandom number generator produced the same number twice in succession.

Recommended Action  Under normal circumstances, it is not a problem if a pseudorandom number generator occasionally produces the same number twice in succession. If this message occurs frequently, manually reload the system. If the message is persistent across reloads, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CRYPTO-4-RECV_PKT_FAIL_DECOMPRESS: pcp: [dec] byte packet failed to decompress
pcp: dest_addr=[IP_address], src_addr=[IP_address]

Explanation  The received IPPCP packet failed to decompress because of a decompression buffer error.

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

Error Message
%CRYPTO-4-RECV_PKT_INV.IDENTITY: [chars] (ip) dest_addr= [IP_address], src_addr= [IP_address], prot= [dec] (ident) local=[IP_address], remote=[IP_address] local proxy=[IP_address]/[IP_address]/[dec]/[dec], remote_proxy=[IP_address]/[IP_address]/[dec]/[dec]

Explanation  A decapsulated IPSec packet does not match the negotiated identity. An SA selection error is causing the peer to send other traffic through this SA. This activity could be considered a hostile event.

Recommended Action  Contact the peer administrator to compare policy settings.

Error Message
%CRYPTO-4-RECV_PKT_INV.IDENTITY_ACL: ipsec check access: identity not allowed by ACL (ip) dest_addr= [IP_address], src_addr= [IP_address], prot= [dec]

Explanation  A decapsulated packet has failed the ACL check. The peer is sending other traffic through this SA. The activity may be caused by an SA selection error by the peer and could be considered a hostile event.

Recommended Action  Contact the peer administrator to compare policy settings.
Error Message
%CRYPTO-4-RECV_PKT_INV_PROT: decapsulate: packet missing [chars],
destadr=[IP_address], actual prot=[dec]

Explanation A received IPSec packet was missing an expected AH or ESP header. The peer is sending packets that do not match the negotiated security policy. This activity could be considered a hostile event.

Recommended Action Contact the peer administrator.

Error Message
%CRYPTO-4-RECV_PKT_INV_SPI: decaps: rec’d IPSEC packet has invalid spi for
destaddr=[IP_address], prot=[dec], spi=[hex]([dec])

Explanation A received IPSec packet specifies an SPI that does not exist in SADB. This may be a temporary condition because of slight differences in the aging of SAs between the IPSec peers or because the local SAs have been cleared. It may also be caused by invalid packets sent by the IPSec peer. This activity could be considered a hostile event.

Recommended Action If the local SAs have been cleared, the peer may not know. In this case, if a new connection is established from the local router, the two peers may reestablish successfully. If the problem occurs for more than a brief period, either attempt to establish a new connection or contact the peer administrator.

Error Message
%CRYPTO-4-RECV_PKT_MAC_ERR: decrypt: mac verify failed for connection id=[dec]

Explanation The MAC verify processing failed. This may be caused by the use of the wrong key by either party during the MAC calculations. This activity could be considered a hostile event.

Recommended Action Contact the peer administrator.

Error Message
%CRYPTO-4-RECV_PKT_MSG_LEN_ERR: decapsulate: packet has bad [chars] length
destadr=[IP_address], prot=[dec], len=[dec]

Explanation The received IPSec packet is malformed, possibly because of an encapsulation error. The peer is sending malformed packets. This activity could be considered a hostile event.

Recommended Action Contact the peer administrator.
Error Message
%CRYPTO-4-RECV_PKT_NO_CPI: pcp: wrong CPI, [hex], in packet from [IP_address]

Explanation  The received IPPCP packet had an improper CPI. This may be caused by the use of an old IPPCP security association.

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

Error Message
%CRYPTO-4-RECV_PKT_NOT_IPSEC: Rec’d packet not an IPSEC packet.
(ip) dest_addr= [IP_address], src_addr= [IP_address], prot= [dec]

Explanation  The received packet matches the crypto map ACL, but the packet is not encapsulated by the IPSec. The IPSec peer is sending unencapsulated packets. There may simply be a policy setup error on the peer. This activity could be considered a hostile event.

Recommended Action  Contact the peer administrator to compare policy settings.

Error Message
%CRYPTO-3-REQCERT: Certificate enrollment message send out ...

Explanation  The certificate enrollment message is being sent.

Recommended Action  No action is required.

Error Message
%CRYPTO-0-SELF_TEST_FAILURE: Encryption self-test failed ([chars])

Explanation  One of the encryption self-tests has failed. The encryption engine is not operable in this state.

Recommended Action  If the failure persists, contact a Cisco technical support representative to obtain a replacement Cisco IOS image.

Error Message
%CRYPTO-3-SOCKETSELECT: Failed to select the socket.

Explanation  A socket selection has caused a failure.

Recommended Action  Check the TCP or socket debugging message.
Error Message
%CRYPTO-3-SOCKETSEND: Failed to send out message to CA server.

Explanation  An HTTP transaction has caused a failure.

Recommended Action  Check the HTTP connection to the CA server.

CSM Messages

The following are call switching module (CSM) error messages.

Error Message
%CSM-5-CAS_IPC_QUEUED: CAS mbox at [hex] in use – message has been [chars].

Explanation  A CAS IPC message has been queued because the mailbox is in use.

Recommended Action  This is a notification message. If the modems are not functional or this message appears frequently, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CSM-1-CAS_MSG_DEPLETED: An error was encountered in enqueuing a CAS message – [chars].

Explanation  The modem may no longer be operational because the amount of memory available in the router may not be sufficient.

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

Error Message
%CSM-1-CSM_BAD_EVENT: [chars]: [dec]/[dec] received invalid event [dec]

Explanation  An invalid operation has been detected by the router.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CSM-1-CSM_MODEM_BAD: Modem [dec]/[dec] has been marked as bad by the router software.

Explanation  The modem is no longer operational because of a run-time error.

Recommended Action  The modem may become operational after the router is reset. If not, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%CSM-1-CSM_STRING_OVERRUN: String copy exceeded buffer size

Explanation  The string written into the allocated buffer exceeded the size of the buffer. This error can cause memory corruption.

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

Error Message
%CSM-1-HWIDB: [chars]: hwidb is NULL

Explanation  An invalid operation has been detected by the router.

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

Error Message
%CSM-1-HWIDB_SUBBLOCK: [chars]: hwidb subblock for b channel [dec] is in use

Explanation  An internal software error has occurred.

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

Error Message
%CSM-1-HWREV: The T1 or E1 network module is incompatible with the digital modems: [chars]

Explanation  The T1 or E1 network module cannot be used with digital modems.

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

%CSM-1-INITPORT: [chars] at slot [dec], port [dec]

**Explanation**  An initialization error occurred on the specified port. The error message specifies more details.

**Recommended Action**  Try resetting the port or power-cycling the system. If the error message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%CSM-1-INITSYS: [chars]

**Explanation**  The modem signaling module failed initialization.

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

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**Error Message**

%CSM-5-MBRI: [chars] at slot [dec], unit [dec], with index [dec]

**Explanation**  An ISDN MBRI interface has changed states. Details of the new state are shown in the error message.

**Recommended Action**  No action is required.

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**Error Message**

%CSM-1-MODEM_INFO: [chars]: modem_info is NULL

**Explanation**  An internal software error has occurred.

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

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**Error Message**

%CSM-5-PRI: [chars] at slot [dec], unit [dec], channel [dec] with index [dec]

**Explanation**  An ISDN PRI interface has changed states. Details of the new state are shown in the error message.

**Recommended Action**  No action is required.
Error Message
%CSM-1-QUEUE_ERROR: An error was encountered in enqueuing a [chars] ([dec]) for slot/port [dec]/[dec].

Explanation The modem may no longer be operational. The amount of memory available in the router may not be sufficient.

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

Error Message
%CSM-1-RBS: [chars] at slot [dec], controller [dec], timeslot [dec]

Explanation An internal software error has occurred. An attempt was made to add a nonexistent CAS signaling interface.

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

Error Message
%CSM-1-UNEXPECTEDEVENT: An Unexpected event received by tone process - [dec] [dec].

Explanation An invalid operation was detected by the router.

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

CSM_VOICE Messages

The following are call switching mode (CSM) voice subsystem error messages.

Error Message
%CSM_VOICE-3-ADDINTRFFAIL: The Voice Telephony Service Provider has rejected our request to add this voice interface ([dec]/[dec]:[dec])

Explanation The voice software was unable to report a new signaling interface to the Voice Telephony Service Provider.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CSM_VOICE-3-MALLOC: No memory is available to build any internal data structure for the voice software.

Explanation The voice software was unable allocate memory to build any internal data structures. The system may be out of memory.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CSM_VOICE-3-NOMEM: No memory is available to build the voice interface ([dec]:[dec])

Explanation The voice software was unable allocate memory to build a voice interface data structure. The system may be out of memory.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CSM_VOICE-3-NOSDB: No signaling data block is available to build the voice interface([dec]/[dec]:[dec])

Explanation The voice software was unable to obtain a signaling data block from the Voice Telephony Service Provider because the system may be out of memory.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%CSM_VOICE-3-NOTDMCHNL: CSM failed to get a free dsp tdm channel from the DSP Resource Manager (DSPRM) to handle an incoming call

Explanation  The voice software was unable to obtain the TDM channel for a free DSP from the DSP resource manager. All of the DSPs have been used to process calls or have been taken out of service.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%CSM_VOICE-3-UNDEFDSX0: Undefined dsx0 interface for controller(\[dec\]/\[dec\])

Explanation  The dsx0 interface for the specified controller is not defined, but the voice software has used the interface. An internal software fault has occurred.

Recommended Action  Contact your field service representative if this message is coincident with dropped calls.

Error Message
%CSM_VOICE-3-UNDEFVOICEINTRF: Invalid interface slot:controller:group(\[dec\]/\[dec\]:\[dec\])

Explanation  The voice interface defined by slot:controller:group is not yet defined within the voice software, but attempts were made to use this interface. An internal software fault has occurred.

Recommended Action  Contact your field service representative if this message is coincident with dropped calls.

CT3 Messages

The following are channelized T3 (CT3) port adapter error messages.

Error Message
%CT3-3-BADMSG: Received unexpected mailbox message (id = \[dec\])

Explanation  An unexpected message has been received from the CT3 firmware.

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

%CT3-1-CONFIGURE: Failed to configure [dec] interfaces in bay [dec], shutting down bay

Explanation  The CT3 hardware has failed. Some components on the board failed to initialize.

Recommended Action  Replace the CT3 port adapter.

Error Message

%CT3-2-CT3FWCRASHED: CT3 F/W crashed in bay [dec]: [hex] - reset

Explanation  The CT3 firmware does not update the software watchdog.

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

Error Message

%CT3-2-CT3FWCRASHEDINFO: [hex] [hex] [hex] [hex]

Explanation  This error message contains CT3 firmware failure information.

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

Error Message

%CT3-3-CT3NOACC: [chars] - Accumulator is not available

Explanation  An invalid Tx accumulator was detected.

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

Error Message

%CT3-1-DISCOVER: Found [dec] interfaces in bay [dec], shutting down bay

Explanation  The CT3 hardware has failed. Some components on the board failed to initialize.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CT3-1-DWNLDFAIL: Microcode to slot [dec]

Explanation The firmware download into the CT3 port adapter failed.

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

Error Message
%CT3-3-ERROR: [chars]

Explanation An internal software error has occurred.

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

Error Message
%CT3-1-INITFAIL: Slot [dec] firmware init ([chars])

Explanation Initialization of the CT3 firmware has failed.

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

Error Message
%CT3-1-INITFAILP: [chars] init failed at [chars]

Explanation Initialization of the CT3 firmware has failed.

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

Error Message
%CT3-3-LOVEFAIL: [chars]: failed to send [chars] love letter

Explanation An expected message was not sent to the RSP.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CT3-3-MBOXRECV: Failed to receive reply [dec] from bay [dec] firmware

Explanation  An expected message was not received from CT3 firmware.

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

Error Message
%CT3-3-MBOXSEND: Failed to send msg [dec] to bay [dec] firmware

Explanation  The specified message was not sent to the CT3 firmware.

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

Error Message
%CT3-3-MBOXSENDM: Failed to send msg [chars] to bay [dec] firmware

Explanation  The specified message was not sent to the CT3 firmware.

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

Error Message
%CT3-3-MBOXSENDP: Failed to send msg [dec] to [chars] driver firmware

Explanation  An expected port-related message was not sent to the CT3 firmware.

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

Error Message
%CT3-3-NOTMXT: Slot [dec] device ID seen as [hex], expected [hex] (Mueslix)

Explanation  The HDLC controller was not detected on the CT3.

Recommended Action  Replace the CT3 port adapter.
Error Message
%CT3-3-NOTPLX: Slot [dec] device ID seen as [hex], expected [hex] (PLX9060)

Explanation  The PLX 9060 was not detected on the CT3.

Recommended Action  Replace the CT3 port adapter.

Error Message
%CT3-1-NOTREADY: Slot [dec] for microcode download

Explanation  An error has been detected on the communication path between the VIP and the CT3 hardware.

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

Error Message
%CT3-2-NOVC: [chars]: packet received for unknown VC [dec]

Explanation  The virtual channel encapsulation has been corrupted.

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

Error Message
%CT3-3-OWNERR: [chars] packet buffer, pak=[hex]

Explanation  A software or hardware error has occurred. The CT3 driver has detected that the transmit ring is in an inconsistent and unrecoverable state.

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

Error Message
%CT3-1-RESTARTFAIL: [chars] could not be reset by [chars]

Explanation  The restart has failed to reset the interface.

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

%CT3-1-STARTFAIL: [chars] could not be enabled by [chars]

Explanation  The restart has failed to enable the interface.

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

Error Message

%CT3-1-STOPFAIL: [chars] could not be disabled by [chars]

Explanation  The shutdown has failed to disable the interface.

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

Error Message

%CT3-1-UNSUPPORTED: [chars]

Explanation  A CT3 port adapter with a revision earlier than Revision 3 has been detected. This port adapter predates the router platform in which it has been installed. The combination is not supported.

Recommended Action  Upgrade to a CT3 port adapter that is Revision 3 or higher.

CTRC Messages

The following are Cisco Transaction Connection (CTRC) error messages.

Error Message

%CTRC-3-APPCError: [chars]

Explanation  An APPC error has occurred. CTRC uses APPC API calls to SNASw to communicate with the remote database server.

Recommended Action  This error usually indicates a problem in the SNA network. Try the ctrc ping command to test connectivity to the remote database server. If the ctrc ping command fails, check the status of the SNA link to the remote database server using the show snasw link command. If the link is active, try stopping and starting the link. If the problem persists, contact your SNA network administrator for help in troubleshooting. If the message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide the output of the debug ctrc appc command and an SNA line trace between the router and the remote database server for the period during which this message appeared.
**Error Message**

%CTRC-3-APPCVERB: Unexpected APPC error: opcode [hex], primary code [hex], secondary code [hex]

**Explanation**
An unexpected APPC error has occurred. The CTRC uses APPC API calls to SNASw to communicate with the remote database server. The opcode identifies the APPC API call that received the error. Primary and secondary return codes are returned by the APPC API.

**Recommended Action**
This error usually indicates a problem in the SNA network. Try the `ctrc ping` command to test connectivity to the remote database server. If the `ctrc ping` command fails, check the status of the SNA link to the remote database server using the `show snasw link` command. If the link is active, try stopping and starting the link. If the problem persists, contact your SNA network administrator for help in troubleshooting. If the message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide the output of the `debug ctrc appc` command and an SNA line trace between the router and the remote database server for the period during which this message appeared.

**Error Message**

%CTRC-4-APPCWARN: [chars]

**Explanation**
An APPC error has occurred. The CTRC uses APPC API calls to SNASw to communicate with the remote database server.

**Recommended Action**
This error usually indicates a temporary problem in the SNA network. Try the `ctrc ping` command to test connectivity to the remote database server. If the `ctrc ping` command fails, check the status of the SNA link to the remote database server using the `show snasw link` command. If the link is active, try stopping and starting the link. If the problem persists, contact your SNA network administrator for help in troubleshooting. If the message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide the output of the `debug ctrc appc` command and an SNA line trace between the router and the remote database server for the period during which this message appeared.

**Error Message**

%CTRC-3-NOBUFFS: No buffers available to [chars]

**Explanation**
The CTRC attempted to allocate a buffer while performing the operation described in the message text. The buffer pool does not contain enough items to satisfy the allocation request.

**Recommended Action**
This problem most commonly occurs whenever a public buffer pool runs out of elements. To determine which pool has run out of buffers, use the `show buffers` command. To adjust the pool size, use the `buffers configuration` command.
CWAN_ATM Messages

Error Message
%CTRC-3-SNASWNOTSTARTED: SNASW is not started -- unable to connect to remote database.

Explanation A client has connected to a CTRC server, but the CTRC was unable to connect out to the remote database because SNASw has not been started. The CTRC uses SNASw to connect to the remote database server. You must start SNASW before CTRC clients attempt to connect.

Recommended Action Start SNASw, and retry the client connection.

Error Message
%CTRC-3-SNASWSTOPPED: SNASW was stopped -- existing connections have been closed.

Explanation SNASw was stopped while CTRC connections were open. Stopping SNASw caused all open SNA network connections to the remote database server to be lost. As a result, all client connections were disconnected. You should not stop SNASw while there are open CTRC connections.

Recommended Action Restart SNASw. Disconnected clients must reconnect.

CWAN_ATM Messages

The following are Constellation WAN ATM error messages.

Error Message
%CWAN_ATM-3-BADMAC: Broadcast MAC on [chars] subnet

Explanation A packet with an unexpected MAC address from the backplane has been detected.

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

Error Message
%CWAN_ATM-3-MCAST_VC_ERR: Multiple IP Multicast addr assigned to VC [hex]

Explanation An attempt was made to use a multicast MPT virtual circuit that was already in use and had been assigned to another multicast group.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWAN_ATM-3-NONDATAVC: Ethernet data frame received on non-data VC

Explanation A data packet for a control virtual circuit has been received from the backplane.

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

CWANLC Messages

The following are Constellation WAN line card error messages.

Error Message
%CWANLC-4-BUSSTALL: Constellation BUS Stall detected

Explanation A stall has been detected on the Constellation bus. The stall may have been caused by some OIR activity on the bus.

Recommended Action No action is required.

Error Message
%CWANLC-3-IPCALLOCFAIL: Failed to allocate IPC buffer [chars]

Explanation The line card has failed to allocate a buffer for communication with the MSFC Route Processor.

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

Error Message
%CWANLC-3-IPCPORTFAIL: Failed to open IPC port ’[chars]’ [chars]

Explanation The line card has failed to open a port for communication with the MSFC Route Processor.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWANLC-3-IPCSENDFAIL: Failed to send IPC message [chars]

Explanation The line card has failed to send a message to the MSFC Route Processor.

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

Error Message
%CWANLC-4-LOGMSGTOOBIG: Logger message length exceeds max, [int] bytes

Explanation The line card has attempted to send a message that exceeded the maximum allowed length to the MSFC Route Processor.

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

Error Message
%CWANLC-3-LONGSTALL: Long bus stall ([int] ms), check for improperly seated cards

Explanation A stall has been detected, and the backplane stall was longer than expected.

Recommended Action Ensure that all cards are firmly seated. A recurring problem may indicate a hardware failure.

Error Message
%CWANLC-2-PCIERROR: Fatal PCI Error [chars] seen on PCI Bus [dec]

Explanation A fatal PCI error has been detected on the PCI bus. This PCI error is probably caused by a hardware problem.

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

The following are Constellation WAN ATM route processor driver error messages.

Error Message
%CWANLC_ATM-3-CMDERR: ([dec]/[dec]) Interface ([chars]): [chars] IPC command fails (cause: [hex])

**Explanation**  The ATM RP driver has experienced an IPC command error.

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

Error Message
%CWANLC_ATM-3-EVENT: ([dec]/[dec]) Interface ([chars]): unknown IPC event ([int]) from linecard

**Explanation**  The ATM RP driver has received an unknown event from the line card.

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

Error Message
%CWANLC_ATM-4-HIRATE: ([dec]/[dec]) Interface ([chars]): SAR limits VBR VC PCR to [dec] kbps, opening UBR VC instead

**Explanation**  The SAR limits the VBR VC PCR to one-half the bandwidth of the link.

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

Error Message
%CWANLC_ATM-3-INIT: ATM driver ([int]/[int]) initialization [chars].

**Explanation**  The ATM RP driver has experienced a software initialization error.

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

%CWANLC_ATM-4-UNSUP: ([dec]/[dec]) Interface ([chars]): unsupported feature: [chars]

**Explanation**  The specified feature is not supported by the ATM RP.

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

**Error Message**

%CWANLC_ATM-3-VCENCTYPE: ([dec]/[dec]) VC:[int] unknown VC encapsulation type ([int])

**Explanation**  The ATM RP driver has experienced an unknown VC encapsulation software error.

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

### CWAN_RP Messages

The following are Constellation WAN ATM route processor driver error messages.

**Error Message**

%CWAN_RP-3-BAD_IFCOMTYPE: Bad ifcom message type=[int]

**Explanation**  A line card has forwarded a message that the Draco software could not process.

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

**Error Message**

%CWAN_RP-3-BOOTFAIL: The CWAN-LC in slot [int]/[int] failed to boot

**Explanation**  The line card that was booting either has reset or has failed.

**Recommended Action**  If the message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWAN_RP-6-CARDRELOAD: Card reloaded on slot [int]/[int]

Explanation  A Find Master SCP message has been recovered on the RP. The line card was either inserted or reset from the NMP. The inserted interface will be shut down until it is configured by the user or, if an interface of the same type was previously configured, it will be restored to its previous state.

Recommended Action  No action is required.

Error Message
%CWAN_RP-3-ERROR: [chars]

Explanation  This message provides information about the specified software error.

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

Error Message
%CWAN_RP-3-FOREVER: cmd [int] to [chars] (slot [int]/[int]) took [int] usecs, done [hex]

Explanation  A CCB command from Draco to a line card took longer than expected.

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

Error Message
%CWAN_RP-3-HV_ALLOCFAIL: Draco failed to allocate a VLAN for a WAN interface, status=[int]

Explanation  The NMP has returned a failure for the VLAN allocation request.

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

Error Message
%CWAN_RP-6-IMAGE_UPGRADE: Bootflash image upgrade [chars] for slot [int]/[int][chars]

Explanation  The bootflash image on the CWAN line card has been automatically upgraded.

Recommended Action  No action is required.
Error Message
%CWAN_RP-3-IPCALLOCFAIL: Failed to allocate IPC buffer [chars]

Explanation The Draco software has failed to allocate a buffer for communication with a line card.

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

Error Message
%CWAN_RP-3-IPCPORTFAIL: Failed to open IPC port ’[chars]’ [chars]

Explanation The Draco software has failed to open a port for communication with a line card.

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

Error Message
%CWAN_RP-3-IPCSENDFAIL: Failed to send IPC message [chars]

Explanation The Draco software has failed to send a message to a line card.

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

Error Message
%CWAN_RP-3-KEEPFAIL: The CWAN-LC in slot [int]/[int] is not responding to keepalives

Explanation The line card either has been reset or has failed.

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

Error Message
%CWAN_RP-3-LC_CRASHINFO: The CWAN_LC in slot [int]/[int] copied [chars] on to RP bootflash

Explanation The line card has failed.

Recommended Action If the error message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWAN_RP-3-LCLOG_BADSEV: Linecard [int]/[int] invalid message severity [int]

Explanation  The line card has forwarded a logger message that has an invalid severity code. The MSFC Route Processor cannot process the message.

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

Error Message
%CWAN_RP-4-LCLOG_TOOLONG: Linecard [int]/[int] message too long, [int] bytes

Explanation  The line card has forwarded a logger message that is too long for the MSFC Route Processor to process.

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

Error Message
%CWAN_RP-6-LC_PRESENT: [chars] in slot [int]

Explanation  A CWAN line card has been detected by the hardware.

Recommended Action  No action is required.

Error Message
%CWAN_RP-6-QUIESCE_FAIL: Quiesce failed for slot [int]/[int]

Explanation  The Draco software has failed to contact the CWAN line card during the specified failover, and the line card will be reset.

Recommended Action  No action is required.

Error Message
%CWAN_RP-3-RESET_FAIL: The CWAN-LC in slot [int] failed even after several resets

Explanation  The line card has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWAN_RP-3-SCPALLOCFAIL: Failed to allocate SCP packet [chars]

Explanation  The Draco software has failed to allocate a packet for communication with other slots in the chassis.

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

CWPA Messages

The following are Route Processor for Constellation Supervisor router module error messages.

Error Message
%CWPA-3-BAD_IFCOMTYPE: Bad ifcom message type=[int]

Explanation  The MSFC Route Processor has forwarded a message that the software could not process.

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

Error Message
%CWPA-3-BADMALUCMD: Unsupported MALU command [dec], arg=[hex], pascb=[hex]

Explanation  The MSFC Route Processor has forwarded a command that the software could not process.

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

Error Message
%CWPA-3-BADMALUCMD2: CWPA([int]): Unsupported MALU cmd/args0=[hex][hex], arglarg2=[hex][hex], pascb=[hex]

Explanation  The MSFC Route Processor has forwarded a command that the software could not process.

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

%CWPA-3-CMDNOPASCB: PASCB Null for command [dec], arg=[hex]

**Explanation**  The MSFC Route Processor has forwarded a command that the software could not process.

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

Error Message

%CWPA-3-IPCALLOCFAIL: Failed to allocate IPC buffer [chars]

**Explanation**  The line card has failed to allocate a buffer for communication with the MSFC Route Processor.

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

Error Message

%CWPA-3-IPCSENDFAIL: Failed to send IPC message [chars]

**Explanation**  The line card has failed to send a message to the MSFC Route Processor.

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

Error Message

%CWPA-3-LVLTRTOOBIG: Loveletter length exceeds max, [int] bytes

**Explanation**  The line card has attempted to send a message that exceeded the maximum allowed length to the MSFC Route Processor.

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

Error Message

%CWPA-3-NODISPATCH: Dispatch vector Null, cmd=[dec], dintf=[dec]

**Explanation**  No command dispatch vector has been found for the specified interface.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Constellation Supervisor router module line card error messages.

**Error Message**

%CWTLC-3-BAD_IFCOMTYPE: Bad ifcom message type=[int]

**Explanation** The MSFC Route Processor has forwarded a message that the software could not process.

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

**Error Message**

%CWTLC-3-BADINT: Attempted to access HWIDB for port [int]

**Explanation** The line card has attempted to access an HWIDB value that is associated with a port that does not exist.

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

**Error Message**

%CWTLC-3-BADINTCREATE: Attempted to install HWIDB for port [int]

**Explanation** The line card has failed to install an HWIDB value because the associated port number was out of range.

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

**Error Message**

%CWTLC-3-BADMALUCMD: Unsupported MALU command [dec], arg=[hex], pascb=[hex]

**Explanation** The MSFC Route Processor has forwarded a command that the software could not process.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWTLC-3-BADMALUCMD2: Unsupported MALU cmd/arg0=[hex][hex], arg1arg2=[hex][hex], hwidb=[chars]

Explanation  The MSFC Route Processor has forwarded a command that the software could not process.

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

Error Message
%CWTLC-3-CMDNOINT: HWIDB Null for command [dec], arg=[hex]

Explanation  The MSFC Route Processor has forwarded a command that the software could not process.

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

Error Message
%CWTLC-3-IPCALLOCFAIL: Failed to allocate IPC buffer [chars]

Explanation  The line card has failed to allocate a buffer for communication with the MSFC Route Processor.

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

Error Message
%CWTLC-3-IPCSENDFAIL: Failed to send IPC message [chars]

Explanation  The line card has failed to send a message to the MSFC Route Processor.

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

Error Message
%CWTLC-3-LVLTRTOOBIG: Loveletter length exceeds max, [int] bytes

Explanation  The line card has attempted to send a message that exceeds the maximum allowed length to the MSFC Route Processor.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%CWTLC-3-NODISPATCH: Dispatch vector Null, cmd=[dec], dintf=[dec]

Explanation  No command dispatch vector has been found for the specified interface.

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

Error Message
%CWTLC-3-VAERROR: Error on Van Allen [dec]

Explanation  An error has been detected on one of the Constellation Switching Bus ASICs that are located on the line card.

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

Error Message
%CWTLC-2-VAFATAL: Fatal Error on Van Allen [dec]

Explanation  A fatal error has been detected on one of the Constellation Switching Bus ASICs.

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

CWTLC_ATM Messages

The following are ATM line card for Constellation Supervisor router module error messages.

Error Message
%CWTLC_ATM-3-CMD_ACK: ATM (port [dec]): Cmd ack problem: [chars]

Explanation  An error has occurred during an attempted communication with SAR.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Database Connection error messages.

**Error Message**

%DBCONN-3-BADLICENSEKEY: Bad license key configured for Database Connection.

**Explanation**  The license key configured with the `dbconn license` configuration command is not valid.

**Recommended Action**  Check that the license key was entered correctly in the `dbconn license` configuration command. Refer to the DBCONN feature documentation for information about how to obtain a valid license key.

**Error Message**

%DBCONN-3-BADMODE: Unknown mode '[chars]' configured for server [chars]

**Explanation**  The mode configured for the DBCONN server has been rejected by the remote database server.

**Recommended Action**  Contact your SNA network administrator to determine the correct name of the mode to use to connect to DB2 on the remote database server.

**Error Message**

%DBCONN-3-BADRLU: Bad remote LU '[chars]' configured for server [chars]

**Explanation**  The remote LU configured for the DBCONN server is incorrect.

**Recommended Action**  Contact your SNA network administrator to determine the correct name of the remote LU for DB2 on the remote database server. Ensure that the SNA network name and the LU name are correct.

**Error Message**

%DBCONN-3-BADTPNAME: Bad TP name configured for server [chars]

**Explanation**  The TP name configured for the DBCONN server is not recognized by the remote database server.

**Recommended Action**  Configure a TP name that is available on the remote database server. Most DB2 systems (except for SQL/DS) will accept the DRDA default TP name of X. Contact your SNA network administrator or your DB2 administrator to determine the TP name used by your DB2. To use the DRDA default, do not explicitly configure a TP name for your DBCONN server.
Error Message

%DBCONN-3-DRDASYNTAX: DRDA protocol error from server [chars], SYNERRCD x’[hex]’

Explanation  An unexpected DRDA protocol error has occurred between DBCONN and the remote database server.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide the output of the debug dbconn drda command, and an SNA line trace between the router and the remote database server, for the period during which this message appeared.

Error Message

%DBCONN-5-IDLETIMEOUT: Client [IP_address] connected to server [chars] has timed out after [time-stamp].

Explanation  The client was idle for too long, and the idle timeout configured for the DBCONN server has expired.

Recommended Action  No action is required.

Error Message

%DBCONN-3-LICENSEEXPERROR: License is expired for Database and Transaction Connection.

Explanation  This system is using a temporary key for its Database and Transaction Connection. The license has expired.

Recommended Action  Contact StarQuest Software to acquire a permanent key.

Error Message

%DBCONN-3-LICENSEEXPWARNING: License is about to expire for Database and Transaction Connection.

Explanation  This system is using a temporary key for its Database and Transaction Connection. The license is about to expire.

Recommended Action  Contact StarQuest Software to acquire a permanent key.

Error Message

%DBCONN-3-LICENSEHWWARNING: Number of connections for TXCONN and DBCONN is at 90% license limit.

Explanation  The number of allowed Database and Transaction Connection clients in this system has reached 90 percent of the limit.

Recommended Action  Acquire more licenses.
Error Message

%DBCONN-5-PWDEXPIRED: APPC security failed, client [IP_address] using userid '[chars]' for server [chars]

Explanation  The password supplied by the client was rejected by the remote database server because it has expired.

Recommended Action  No action is required.

Error Message

%DBCONN-5-PWDINVALID: APPC security failed, client [IP_address] using userid '[chars]' for server [chars]

Explanation  The password supplied by the client was rejected by the remote database server.

Recommended Action  No action is required.

Error Message

%DBCONN-5-PWDMISSING: APPC security failed, client [IP_address] using userid '[chars]' for server [chars]

Explanation  The remote database server requires a user ID and password, but the password was not provided.

Recommended Action  No action is required.

Error Message

%DBCONN-5-SECFAIL: APPC security failed, client [IP_address] using userid '[chars]' for server [chars]

Explanation  The user ID or password supplied by the client was rejected by the remote database server.

Recommended Action  No action is required.

Error Message

%DBCONN-5-SECUNKNOWN: APPC security failed, client [IP_address] using userid '[chars]' for server [chars]

Explanation  An unspecified security failure has occurred. The database host system may be able to provide more specific information.

Recommended Action  No action is required.
Error Message

%DBCONN-5-UIDINVALID: APPC security failed, client [IP_address] using userid 
‘[chars]’ for server [chars]

Explanation The user ID used to connect to the remote database server is not valid.

Recommended Action No action is required.

Error Message

%DBCONN-5-UIDMISSING: APPC security failed, client [IP_address] using userid 
‘[chars]’ for server [chars]

Explanation The remote database server requires a user ID, but the user ID was not provided.

Recommended Action No action is required.

Error Message

%DBCONN-5-UIDREVOKED: APPC security failed, client [IP_address] using userid 
‘[chars]’ for server [chars]

Explanation The user ID used to connect to the remote database server has been revoked.

Recommended Action No action is required.

Error Message

%DBCONN-5-WLMDOWN: All WLM routes on server [chars] have become unavailable.
Recovery is in progress.

Explanation A load-balanced WLM server has lost connectivity to all destinations in its server list. 
All client connections to this server will be rejected until a host in the complex becomes available 
again.

Recommended Action No action is required.

Error Message

%DBCONN-5-WLMISMATCH: WLM transport type mismatch on server [chars].

Explanation The transport type within a server list received from a WLM load-balanced database does 
not match the transport type of the corresponding DBCONN server. If the conflicting server list 
specifies the SNA network transport type, the default mode #INTER will be used to establish the 
connection.

Recommended Action No action is required.
DBUS Messages

The following are data bus error messages.

Error Message

%DBUS-3-BADCTRLRTYPE: Invalid controller type [dec] in slot [dec]

Explanation  An interface processor responded with an unknown or illegal controller type when queried. This problem should not happen unless the running software does not support the interface processor in question or the interface processor fails.

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

Error Message

%DBUS-3-BADEEPROM: Invalid EEPROM data found for card in slot [dec], card disabled

Explanation  The ID EEPROM on the indicated card is not programmed correctly.

Recommended Action  Contact your Cisco technical support representative for a replacement card.

Error Message

%DBUS-3-BADHSACONF: Down rev RSP EPROM found HSA system, upgrade EPROM, or remove one RSP

Explanation  A software or hardware error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DBUS-3-CXBUSERR: Slot [dec], CBus Error

Explanation  A processor has reported a bus error. The processor will be reset and will not used until the next OIR event or microcode download, when it will be retested.

Recommended Action  Reinstall the processor or download the microcode. If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DBUS-3-DAUGHTER_STATS: Slot [dec] control [hex], status [hex]

Explanation A processor has reported an error. This error message is sent out in conjunction with other error messages to provide additional information.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%DBUS-3-DBUSINTERR: Slot [dec], Internal Error

Explanation A processor has reported an internal error. The processor will be reset and will not be used until the next OIR event or microcode download, when it will be retested.

Recommended Action Reinstall the processor or download the microcode. If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DBUS-3-DBUSINTERRSWSET: Slot [dec], Internal Error due to VIP crash

Explanation A processor has reported an error. The processor will be reset and will not be used until the next OIR event or microcode download, when it will be retested.

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

Error Message
%DBUS-3-MSGOVERFLOW: Slot [dec], too many DBUS messages

Explanation A card in the slot identified in the error message has tried to send too many logger messages.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%DBUS-3-NOMAGIC: No magic number found in RP1 EEPROM

**Explanation** The structure containing the system MAC address that is required by the OIR facility cannot be found in the RP EEPROM. The RP must be returned for reprogramming.

**Recommended Action** Return the RP for reprogramming, and contact your Cisco technical support representative for assistance.

Error Message

%DBUS-3-NORESP: bad or no response, slot [int]

**Explanation** A card in the slot identified in the error message has failed to respond.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DBUS-3-NOSUPPORT: No driver support in this image for [chars] in slot [dec] (card type [dec]) - disabled

**Explanation** The Cisco IOS image does not have driver support code for the specified interface processor.

**Recommended Action** Remove the unsupported interface processor card or reload the router with a Cisco IOS image that has driver support code for that interface processor card.

Error Message

%DBUS-3-SLOTCOMP: Slot [dec], dbus error, slot ([hex]) and complement ([hex]) do not match

**Explanation** A processor has reported a mismatch between the contents of the slot register and its complement. This condition indicates a hardware failure in the diagnostic bus controller on that processor or on the diagnostic bus. The processor will be reset and will not be used until the next OIR event or microcode download, when it will be retested.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%DBUS-3-SW_NOTRDY: DBUS software not ready after [chars], elapsed [int], status [hex]

**Explanation**  An interface processor failed to appear online after being reset. A software or hardware error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DBUS-2-UNKNOWN: Slot [dec], unknown controller type [hex], ignoring

**Explanation**  A processor has reported a controller type that is unknown to the system. The processor will not be used and must be repaired.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DBUS-3-WCSCTRLERR: Slot [dec], WCS Controller Instruction Error

**Explanation**  The WCS is the set of devices on each interface processor that contains the running microcode. It can be loaded either from the ROM on the interface processor or from the system by using the downloadable microcode facility. In this message, a processor reported a WCS controller instruction error. The processor will be reset and will not be used until the next OIR event or microcode download, when it will be retested.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DBUS-3-WCSERR: Slot [dec], WCS controller in error state ([hex]), resetting

**Explanation**  The processor in the slot identified in the error message reported a WCS controller error. The processor will be reset, and the new microcode will be loaded. This error message appears only when the microcode is downloaded.

**Recommended Action**  Reset the processor and load new microcode. If this error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DBUS-3-WCSFLOW: Slot [dec], flow cntrl error loading WCS, last data [hex] pos [dec]

Explanation  A processor has indicated an error condition while downloading microcode. The status, cmd/data, and position numbers shown in the message reflect the error condition, the last byte of microcode loaded, and the position in the file, respectively. If this error appears, the microcode download is aborted, and the ROM microcode is loaded.

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

Error Message
%DBUS-3-WCSLDERR: Slot [dec], error loading WCS, status [hex] cmd/data [hex] pos [dec]

Explanation  A processor indicated an error condition while downloading the microcode. The status, cmd/data, and position numbers shown in the message reflect the error condition, the last byte of microcode loaded, and the position in the file, respectively. If this error appears, the microcode download is aborted, and the ROM microcode is loaded.

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

Error Message
%DBUS-3-WCSPARERR: Slot [dec], WCS Controller Parity Error

Explanation  A processor has reported a WCS parity error. The processor will be reset and will not be used until the next OIR event or microcode download, when it will be retested.

Recommended Action  Replace the processor or download microcode. If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DBUS-3-XILINX: ready wait timeout, slot [int]

Explanation  The field-programmable gate arrays on an interface processor failed to load after being reset. This failure indicates a probable software or hardware problem.

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

The following are ATM access concentrator PCI port adapter error messages.

**Error Message**

%CUC-3-DCU_RESET: [chars]: DCU keep-alive failure, card reset

**Explanation** The port adapter has stopped processing keepalives.

**Recommended Action** No action is required.

**Error Message**

%CUC-1-NODCUPORTS: The maximum number of DCU ports ([dec]) is exceeded

**Explanation** The system has detected too many DCU ports.

**Recommended Action** Check the configuration. If the problem persists, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%CUC-1-NOMEMORY: Unit [dec], no memory for [chars]

**Explanation** Memory exhaustion has occurred.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

DEC21140 Messages

The following are DEC21140 Fast Ethernet controller error messages.

**Error Message**

%DEC21140-5-COLL: [chars] excessive collisions

**Explanation** A Fast Ethernet packet has been dropped because too many attempts to transmit it were stopped by collisions. This problem can be caused by a Fast Ethernet segment that is full to capacity or by other malfunctioning equipment on the LAN.

**Recommended Action** No action is required.
Error Message
DEC21140-3-DEFER: [chars] transmit error

Explanation A defer event occurs when the transmitter cannot immediately send a packet due to the medium being busy. The medium is busy either because another device is transmitting, or the Inter-Packet Gap timer has not expired.

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

Error Message
%DEC21140-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation The number of interfaces found was not what was expected. This error may indicate a hardware failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%DEC21140-3-DUPLEX_SPEED: [chars] doesn’t support the configured duplex and speed combination

Explanation The Fast Ethernet port was configured for a duplex and speed combination that this particular hardware does not support.

Recommended Action Specify a different speed and duplex combination. If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DEC21140-3-ERRINT: [chars] csr0=[hex], csr5=[hex]

Explanation The Fast Ethernet controller has signaled an error condition on the specified port. The following information describes the output of the CSR5 register.

bit 13: Fatal bus error
bit 11: General-purpose timer expired
bit 09: Receive watchdog timeout
bit 08: Receive process stopped
bit 07: Receive buffer unavailable
bit 03: Transmit jabber timeout
bit 02: Transmit buffer unavailable
bit 01: Transmit process stopped
bit 25:23 Error Bits (Valid only when csr5<13> is set)
The following information describes the output if the CSR5 error type is CSR5<25:23>.

000   Parity error
001   Master abort
010   Target abort

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

Error Message
%DEC21140-1-INITFAIL: [chars] timed out, csr5=[hex]

Explanation  The Fast Ethernet port initialization has failed. The error can be caused by disconnected cabling or by a failure to detect the media in use.

Recommended Action  Check the cabling, and then try initializing the port again. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DEC21140-5-JABBER: [chars] transmit timed out

Explanation  The transmitter for the port adapter Fast Ethernet port has timed out and caused the transmission of a packet to fail. The Transmit process is aborted and is placed in the stopped state.

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

Error Message
%DEC21140-5-LATECOLL: [chars] transmit error

Explanation  Late collisions happen when a collision occurs after the preamble has been sent. The packet will be sent, but this message could indicate that another device is failing to detect when the network is in use.

Recommended Action  If this message recurs, check for other malfunctioning devices on the Fast Ethernet. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%DEC21140-5-LOSTCARR: [chars] cable/transceiver problem?

Explanation The Fast Ethernet port lost its carrier while transmitting. This means that it is no longer receiving signals from the LAN. This problem can be caused by disconnected Fast Ethernet cabling or by a transceiver failure.

Recommended Action Check the Fast Ethernet wiring and port adapter. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%DEC21140-5-NOCARR: [chars] cable/connector problem?

Explanation The Fast Ethernet port lost its carrier while transmitting. This means that it is no longer receiving signals from the LAN. This problem can be caused by disconnected Fast Ethernet cabling or by a transceiver failure.

Recommended Action Check the Fast Ethernet wiring and port adapter. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%DEC21140-2-NOISL: Interface [chars] does not support ISL

Explanation The ISL is not supported on hardware of the specified interface.

Recommended Action No action is required.

Error Message

%DEC21140-3-NOTDEC21140: Bay [dec] device ID seen as [hex], expected [hex]

Explanation The Fast Ethernet driver has failed to initialize.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DEC21140-3-OWNERR: [chars] packet buffer, pak=[hex]

Explanation An internal software inconsistency exists.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%DEC21140-3-RXFIFO: [chars] overflow error

Explanation The Fast Ethernet receiver was unable to send received data to a hardware buffer because the input rate exceeded the ability of the receiver to handle the data. This problem could be caused by excessive system load.

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

Error Message
%DEC21140-3-UNDERFLO: [chars] transmit error

Explanation The Fast Ethernet transmitter was ready before a packet was in the buffer. An underflow error indicates that the controller encountered an empty transmit FIFO while transmitting a frame. This condition could be caused by excessive system load.

Recommended Action If possible, move the bandwidth-hogging interfaces off of the same PCI backplane. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DEC21140-5-WATCHDOG: Enormous packet received on [chars]

Explanation A packet received from the Fast Ethernet was dropped because of its excessive size.

Recommended Action Adjust the MTU of the interface if necessary. Otherwise, no action is required.

DFC Messages

The following are dial feature card (DFC) carrier platform error messages.

Error Message
%DFC-1-DFC_BAD_DFC_TYPE: DFC in slot [dec] has incorrect board id of [dec]

Explanation A DFC does not have a correct card ID.

Recommended Action Ensure that the card cookie was programmed correctly, or try a new card. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%DFC-1-DFC_OLD_HW_REV: DFC in slot [dec] has old hw rev [dec].[dec] when should be [dec].[dec]

Explanation  A DFC does not have the latest hardware revision. The card must be updated to version indicated in the error message output.

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

Error Message

%DFC-1-DFC_OLD_TULUM_VERSION: DFC in slot [dec] has old Tulum version [dec] when should be [dec]

Explanation  A DFC does not have the latest Tulum version.

Recommended Action  Update the Tulum version on the DFC card. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

DFC_CARRIER Messages

The following are dial feature card (DFC) carrier card error messages.

Error Message

%DFC_CARRIER-1-CARRIER_OLD_HW_REV: DFC Carrier in slot [dec] has old hw revision [dec].[dec] when hw revision should be [dec].[dec].

Explanation  A DFC carrier card does not have the latest revision.

Recommended Action  If the hardware is not the latest revision, update the DFC carrier card with the latest revision as specified in the error message output. If the message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
DHCPD Messages

The following are Dynamic Host Configuration Protocol (DHCP) server error messages.

**Error Message**
%DHCPD-4-DECLINE_CONFLICT: DHCP address conflict: client [chars] declined [IP_address].

**Explanation** The DHCP client has detected an address conflict. Another host is using the specified IP address.

**Recommended Action** Resolve the misconfiguration. Clear the conflict from the DHCP database. After resolving the conflict, use the `clear ip dhcp conflict` command.

**Error Message**
%DHCPD-2-MALLOC_ERROR: There is inadequate memory for DHCP services.

**Explanation** The DHCP could not allocate mandatory data structures.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**
%DHCPD-2-NO_PROCESS: DHCP could not start its [chars] process.

**Explanation** The DHCP could not start one of its processes.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**
%DHCPD-4-PING_CONFLICT: DHCP address conflict: server pinged [IP_address].

**Explanation** The DHCP server has detected an address conflict. Another host is using the specified IP address.

**Recommended Action** Resolve the misconfiguration. Clear the conflict from the DHCP database. After resolving the conflict, enter the `clear ip dhcp conflict` command.
Error Message
%DHCPD-2-READ_DEADLOCK: DHCP has detected a deadlock condition (excessive read failures).

Explanation The DHCP server could not read the bindings from any database agent. To prevent a possible deadlock, the server has made all pool addresses available for assignment.

Recommended Action Verify that all of the URLs are correct and ensure that connectivity exists between the server and all database agents. Check for corrupt database files. All files must contain the time and end keywords. Enter the show ip dhcp database command. If there are aborted file transfers, increase the appropriate timeouts, then restart the DHCP server.

Error Message
%DHCPD-3-READ_ERROR: DHCP could not read bindings from [chars].

Explanation The DHCP server could not read bindings from the specified database agent.

Recommended Action Verify that the URL is correct and connectivity exists between the server and database agent. Check for a corrupt database file. The file must contain the time and end keywords. Enter the show ip dhcp database command. If there are aborted file transfers, increase the database transfer timeout.

Error Message
%DHCPD-2-RECVMSG_ERROR: Recvmsg failed unexpectedly. DHCP services have been terminated.

Explanation The reason for this failure is unknown.

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

Error Message
%DHCPD-4-RELAY_ONLY: DHCP will run as a relay agent only.

Explanation The DHCP could not start its database process. The server component has been disabled. Only the relay agent is active.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%DHCPD-2-SOCKET_ERROR: DHCP could not open UDP port [int].

Explanation The DHCP could not open the UDP port.

Recommended Action Check if another application is using the UDP. If the port is available, add more memory.
Error Message
%DHCPD-3-WRITE_ERROR: DHCP could not write bindings to [chars].

Explanation  The DHCP server could not write bindings to the specified database agent.

Recommended Action  Verify that the URL is correct and connectivity exists between the server and database agent. Enter the show ip dhcp database command. If there are aborted file transfers, increase the database transfer timeout.

DIALER Messages

The following are dial-on-demand routing (DDR) error messages.

Error Message
%DIALER-6-BIND: Interface [chars] bound to profile [chars]

Explanation  A dialer interface has been bound to a dialer profile.

Recommended Action  No action is required.

Error Message
%DIALER-2-CIRCUITCOUNT: Dialer count 0 on [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%DIALER-2-NOSWIDB: No software interface associated with hw interface [chars]

Explanation  An internal software error has occurred.

Recommended Action  Contact your technical support representative and report the error message, the system version, and the router configuration. Use the show version command to obtain the software version.
Error Message

%DIALER-2-NULLPTR: Unexpected null pointer in [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%DIALER-6-UNBIND: Interface [chars] unbound from profile [chars]

Explanation  A dialer interface has been unbound to a dialer profile.

Recommended Action  No action is required.

DIALPEER_DB Messages

The following are dial peer configuration error messages.

Error Message

%DIALPEER_DB-3-ADDPEER_MEM_THRESHOLD: Addition of dial-peers limited by available memory

Explanation  The available memory does not permit the addition of more dial peers.

Recommended Action  To add more dial peers, increase the processor memory.

Error Message

%DIALPEER_DB-3-ADDPEER_PLATFORM_LIMIT: Addition of dial-peers limited by platform

Explanation  This platform does not permit the addition of more dial peers.

Recommended Action  Reduce the number of dial peers in your numbering plan.

Error Message

%DIALPEER_DB-6-ADDPEER_WARNING: Addition of too many dial-peers may affect performance

Explanation  The number of dial peers is high. This will have an effect on the dial-peer lookup time, resulting in longer call setup time

Recommended Action  Use the minimum number of dial peers necessary for your numbering plan.
The following are dial shelf error messages.

**Error Message**

`%DIALSHELF-2-DSCDOWN: DSC in slot [dec] changes state to down.`

**Explanation** The DSC in the dial shelf has failed.

**Recommended Action** Try to bring up the failed DSC by checking the LCD and LEDs of the DSC and by ensuring that the RS-to-DSC connection functions. If the DSC does not come back up, report the error to your Cisco technical support representative.

**Error Message**

`%DIALSHELF-3-EVENT: Unknown event [dec] for slot [dec]`

**Explanation** The software has generated an unknown event for the specified slot. An internal software error has occurred.

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

**Error Message**

`%DIALSHELF-3-INVALIDMSG: [chars] ([dec])`

**Explanation** The router shelf has received an invalid message from the DSC in the dial shelf. This is a software error or compatibility issue. Check the software versions on the router shelf and the DSC.

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

**Error Message**

`%DIALSHELF-3-MSG: Unknown message type [dec] from DSC`

**Explanation** The router shelf has received an unknown message from the DSC in the dial shelf. This is a software error or compatibility issue. Check the software versions on the router shelf and the DSC.

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

%DIALSHELF-6-RELOAD: Reload requested for card in shelf [dec] slot [dec].

Explanation The hw-module slot [shelf] | [slot] reload command was entered. This message is a confirmation that the command is being processed.

Recommended Action No action is required.

Error Message

%DIALSHELF-3-SLOTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

Explanation The software has detected an invalid state change for the specified slot. This is a software error.

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

Error Message


Explanation The specified dial shelf slot has timed out. A software or hardware component has failed.

Recommended Action Try removing and reinserting the card. If removing and reinserting the card does not help, try a different card. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%DIALSHELF-2-UNDEFCARD: Card type [dec] in slot [dec]

Explanation The software does not have a driver for the card in the specified slot.

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

Error Message

%DIALSHELF-4-UNRECOMMENDED: Number of [chars] may exceed recommended configuration

Explanation On NPE200, more than one CT3 or more than two T1s or E1s are installed, exceeding the recommended configuration parameters.

Recommended Action Stay within the recommended limit of CT3s, T1s, and E1s, install a split dial-shelf configuration, or upgrade the router shelf to NPE300.
DIRECTOR Messages

The following are director server error messages.

Error Message
%DIRECTOR-3-BADCOMPL: plug-in returned orphan status

Explanation A software or hardware error has occurred.

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

Error Message
%DIRECTOR-6-DNSNORSP: answer type [chars] host [chars] cli [IP_address] id# [dec] none

Explanation This is an informational DNS reply logging message.

Recommended Action No action is required.

Error Message
%DIRECTOR-6-DNSQUERY: query type [chars] host [chars] cli [IP_address] id# [dec]

Explanation This is an informational DNS reply logging message.

Recommended Action No action is required.

Error Message
%DIRECTOR-6-DNSRESPN: answer type [chars] host [chars] cli [IP_address] id# [dec] svr [IP_address]

Explanation This DNS reply logging message indicates that a server has been found.

Recommended Action No action is required.

Error Message
%DIRECTOR-3-DRPDOWN: DRP [IP_address] was down [time-stamp] ago in the last [dec] minute period ! There may be problems related to this DRP agent.

Explanation The remote DRP agent has not responded within the time period reported.

Recommended Action Ensure that the remote DRP agent is running and that it is accessible from the system reporting the problem. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%DIRECTOR-3-HTTPOVERLOAD: Excessive HTTP request overloading: dropping HTTP req from <cli [IP_address]>.

   Explanation  HTTP requests are overloading the web redirector. The web redirector is automatically discarding HTTP request traffic.

   Recommended Action  No action is required.

Error Message

%DIRECTOR-3-NOALIAS: [chars] can not create ip alias

   Explanation  A resource problem has probably occurred within the system.

   Recommended Action  Reboot the system as soon as possible. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%DIRECTOR-3-NOPORT: [chars] port in use

   Explanation  The IP address requested is already in use on an interface connected to the system or within the system itself.

   Recommended Action  Either select another IP address for use, or locate the system making use of this address and reconfigure the system to use another address.

Error Message

%DIRECTOR-3-NOPROC: unable to create [chars] process

   Explanation  A resource problem has occurred within the system.

   Recommended Action  Reboot the system as soon as possible. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%DIRECTOR-3-NOSOCKET: [chars] unable to create socket

   Explanation  A software or hardware error has occurred.

   Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DIRECTOR-3-NOTCONF: Metric [chars] referenced but not found

Explanation This is an informational DNS reply logging message.

Recommended Action No action is required.

Error Message
%DIRECTOR-3-NOWRITE: [chars] unable to write to socket

Explanation A software or hardware error has occurred.

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

Error Message
%DIRECTOR-6-SVRNSELCT: no answer for (host [chars] cli [IP_address] type [chars] id# [dec]) [chars]

Explanation No server was found.

Recommended Action No action is required.

Error Message
%DIRECTOR-6-SVRSELECT: select [IP_address] (host [chars] cli [IP_address] type [chars] id# [dec]) [chars]

Explanation This DNS logging message provides information about the report server selection process.

Recommended Action No action is required.

Error Message
%DIRECTOR-5-SVRUPDOWN: server [IP_address] (on port [dec]) has gone [chars]

Explanation The remote server has gone up or down.

Recommended Action No action is required.

Error Message
%DIRECTOR-3-URLELSEWHERE: URL is elsewhere ('[chars]'), Code [dec] - [chars]

Explanation The HTTP return code indicates that the specified page is not actually on this server.

Recommended Action Check the URL that had been configured, and check the configured HTTP server.
DLC Messages

The following are DLC error messages.

Error Message
%DIRECTOR-3-URLSVRERR: Server error ‘[chars]’, Code [dec] - [chars]

Explanation  The HTTP return code indicates that a server failure error has occurred.

Recommended Action  Check the URL that had been configured, and check the configured HTTP server.

DLC Messages

Error Message
%DLC-3-BADPARAM: Function [chars]: value [hex] passed in parameter [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DLC-3-INVPCEP: Close Station, invalid P_CEP

Explanation  An internal software error has occurred.

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

Error Message
%DLC-2-NOMEMORY: no memory for [chars]

Explanation  There was not enough free memory to complete the operation.

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

Error Message
%DLC-3-WPUTERR: unknown port type [hex]

Explanation  An internal software error has occurred.

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

The following are data-link switching (DLSw) error messages.

Error Message

%DLSWC-3-BADCLSI: [chars] primitive not valid for dlsw [chars] [chars]

Explanation A data-link switching system error occurred.

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

Error Message

%DLSWC-3-BADCLSICNF: [chars] Invalid confirm [chars] [chars]

Explanation A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-BADCLSIDATALEN: [chars] Bad data len = [dec] [chars]

Explanation A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-BADCLSIHDRLEN: [chars] Bad header len = [hex] [chars]

Explanation A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-BADCLSIIDTYPE: [chars] Invalid ID type = [hex] [chars]

Explanation A data-link switching system error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DLSWC-3-BADCLSIIND: [chars] Invalid indication [chars], [chars]

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-BADCLSIPRIMTYPE: [chars] Invalid primitive type = [hex] [chars]

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-BADCLSIRET: [chars] Invalid ret code ([hex]) [chars], [chars]

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-BADCLSISAP: [chars] Bad clsi SAP id = [hex] [chars]

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-BADDLCOP: dlsw_action, bad dlc event [dec], [chars]

Explanation A data-link switching system error has occurred.

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

%DLSWC-3-BADPEEROP: bad peer op in peer_to_core [dec]

Explanation  A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-BADSSPEVENT: dlsw_action, bad ssp event [dec], [chars]

Explanation  A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-BADSSPHDR: bad ssp hdr in proc ssp - [chars] = [hex]

Explanation  An SSP header that was received from the remote peer contains errors in one of the fields.

Recommended Action  If the remote peer is not a Cisco router, confirm that it supports the DLSw RFC 1795 standard.

Error Message

%DLSWC-3-BADSSPOP: bad ssp op in proc ssp [dec]

Explanation  An SSP frame with an invalid command has been received from the remote peer.

Recommended Action  If the remote peer is not a Cisco router, confirm that it supports DLSw RFC 1795 standard.

Error Message

%DLSWC-3-BADTIMEROP: dlsw_action, bad timer event [dec], [chars]

Explanation  A data-link switching system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DLSWC-3-FAILASSERT: Assertion failed: [chars]

Explanation  An internal software inconsistency has occurred, but the router continues to operate.

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

Error Message
%DLSWC-3-FORKFAIL: Can’t fork : [chars] process

Explanation  The DLSw process cannot run.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DLSWC-3-FSMACTION: [chars]

Explanation  This message identifies the frames sent by DLSw on the LAN or WAN side. This message indicates normal behavior.

Recommended Action  No action is required.

Error Message
%DLSWC-3-FSMCALL: [chars] state [chars], event: [chars][chars]

Explanation  A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-FSMERR: fsm error [chars] [chars] [chars] event: [chars][chars]

Explanation  A data-link switching system error has occurred.

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

%DLSWC-3-FSMINTERR: fsm internal error - [chars]

Explanation  A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-FSMUNKERR: [chars] [dec]: [chars] [chars] event:[chars][chars] input: [dec] [dec] states: [dec] [dec]

Explanation  A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-IDMGR: [chars]

Explanation  A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-INVALIDSTATE: finite state machine in invalid state

Explanation  A data-link switching system error has occurred.

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

Error Message

%DLSWC-3-INVALIDTIMER: bad timer pop for [chars], new state [chars]

Explanation  A data-link switching system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DLSWC-3-NODLSW: no dlsw, [chars]

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-NOPARAM: dlsw_action, null param blk

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-NOPEER: no peer, [chars]

Explanation A data-link switching system error has occurred.

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

Error Message
%DLSWC-3-RECVSSP: SSP OP = [dec]([chars]) [chars] from [chars]

Explanation An SSP frame was received from the remote peer.

Recommended Action No action is required.

Error Message
%DLSWC-3-SENDSSP: SSP OP = [dec]([chars]) [chars] to [chars] [chars]

Explanation An SSP frame was sent to the remote peer.

Recommended Action No action is required.
DLSWMasterSlave Messages

The following are data-link switching (DLSw) core error messages.

Error Message
%DLSWMasterSlave-3-DLSWMS: [chars]

Explanation A DLSw master-slave error has occurred.

Recommended Action No action is required.

Error Message
%DLSWMasterSlave-3-DLSWMSDLX: [chars] [hex] from [enet]

Explanation A DLSw master-slave error has occurred.

Recommended Action No action is required.

Error Message
%DLSWMasterSlave-3-DLSWMSRCV: [chars] from [enet]

Explanation A DLSw master-slave error has occurred.

Recommended Action No action is required.

Error Message
%DLSWMasterSlave-3-DLSWMSSAP: [chars] [chars]

Explanation A DLSw master-slave error has occurred.

Recommended Action No action is required.

DLSWP Messages

The following are data-link switching (DLSw) peer module error messages.

Error Message
%DLSWP-3-PBADVALUE: DLSw: [chars]: invalid [chars] [dec]

Explanation An invalid parameter value was passed. This error should not cause any network problems unless it happens repeatedly.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DLSWP-3-PCAPMISMATCH: DLSw: [chars]: [chars]

Explanation  The priority keyword was used on one router but not on the other. The priority keyword is an option on the DLSw remote peer definition.

Recommended Action  If you want to use prioritization, use it on both routers.

Error Message
%DLSWP-3-PGENERAL: DLSw: [chars] [chars]

Explanation  A general error condition has been detected. This error should not cause any network problems unless it happens repeatedly.

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

Error Message
%DLSWP-3-PLFCHANGE: [chars] [dec]; [chars]

Explanation  The largest frame size configured in the DLSw remote peer definition is being changed because the MTU size configured on the interface, used by DLSw, is less than the configured value of the largest frame on the DLSw remote peer definition. The largest frame size is being changed to the maximum frame size configured on the interface.

Recommended Action  If you want to use the largest frame size for DLSw, increase the MTU on the interface to a value larger than the largest frame size configured.

Error Message
%DLSWP-3-PNOCOOKIE: DLSw: uninitalized peer [chars] from [IP_address][[dec]) to [IP_address][[dec])

Explanation  The DLSw has received a packet on an uninitialized peer connection.

Recommended Action  Verify the configuration and the DLSw peer status on both routers.

Error Message
%DLSWP-3-PNOMEM: DLSw: No memory to [chars]

Explanation  The router has run out of system memory for operation. Probably the router image requires more system memory than the router contains.

Recommended Action  Consult with your Cisco technical support representative about the memory requirements for the specific image used on the router.
DMA Messages

Error Message

%DLSWP-3-PPASSIVE: DLSw: passive open failed from [IP_address]([dec]) -> [dec]

Explanation The system does not have enough main memory for TCP to allocate the data structures required to accept an incoming TCP connection. Probably the router image requires more system memory than the router contains.

Recommended Action Consult with your Cisco technical support representative about memory requirements for a specific image used on the router.

DMA Messages

The following are direct memory access (DMA) error messages.

Error Message

%DMA-1-DRQ_EMPTY_PAK: Empty packet is being sent to backplane. particle_ptr=[hex]

Explanation The drq_io has received a packet that has a particle count of zero. A coding error has occurred that will jeopardize system performance.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide the output of the show command on the reporting VIP.

Error Message

%DMA-1-DRQ_STALLED: DRQ stalled. Dumping DRQ.

Explanation The path from the VIP to the backplane has stalled. The DRQ table is being dumped so that it can be debugged.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide output of the hex dump that follows the error message.

Error Message

%DMA-1-GIANT_CHECK: Giant detected; size [dec]

Explanation This error message appears only in custom-built images when a verification check fails. A packet that was too large was sent over the backplane by a VIP.

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

The following are digital/discrete multitone digital subscriber line (DMTDSL) error messages.

Error Message
%DMTDSL-3-BADINITDSL: DMTDSL([dec]/[dec]), interface not initialized.

Explanation  The ATM network module hardware may be defective.

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

Error Message
%DMTDSL-3-DMTHWBAD: DMTDSL([dec]/[dec]), Hardware failed self test

Explanation  The DSL chipset has failed its self-test.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DMTDSL-3-FAILFINDATM: DMTDSL([dec]/[dec]), Could not find ATM interface.

Explanation The DSL network module hardware may be defective.

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

Error Message
%DMTDSL-1-INITFAIL: DMTDSL([dec]/[dec]), Init failed, [chars]

Explanation The ADSL network module hardware may be defective.

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

Error Message
%DMTDSL-3-NOMEM: DMTDSL([dec]/[dec]), Out of memory

Explanation The router does not have enough memory installed to run this image.

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

DNET Messages

The following are DECnet error messages.

Error Message
%DNET-4-DUPENTRY: Duplicate DECnet Accounting List Entry for nodes [dec].[dec] - [dec].[dec]

Explanation A synchronization problem has occurred while a new transit DECnet accounting list entry was being added, and a duplicate entry has been found.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show deenet accounting command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show deenet accounting command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%DNET-3-HEARSELF: Hello type [hex] for my address from [dec].[dec] via [chars]

Explanation  The system is receiving its own DECnet packets. Either a serial line is looped back or another host with the same DECnet address is already present on the LAN.

Recommended Action  Check the serial lines (if present) and the DECnet configuration.

Error Message
%DNET-4-MAPCON: Map entry [dec].[dec] conflicts with adjacency to [dec].[dec]

Explanation  The DECnet configuration is incorrect. A host that is specified as nonlocal is present on the local network.

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

Error Message
%DNET-3-NOMEMORY: Insufficient memory for DECnet accounting entry

Explanation  The traffic information for a particular pair of DECnet nodes cannot be recorded because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

DNSSERVER Messages

The following are Domain Name Server (DNS) server error messages.

Error Message
%DNSSERVER-3-BADQUERY: Bad DNS query from [IP_address]

Explanation  A client has sent an incorrectly formatted DNS query to the server.

Recommended Action  Check the DNS server and the network attached to it.

Error Message
%DNSSERVER-3-NOINIT: Can't initialize DNS server

Explanation  Ports cannot be initialized for the DNS server because of internal problems.

Recommended Action  Ensure that the DNS server port is available on the local machine.
Error Message
%DNSSERVER-3-TCPDNSOVERLOAD: Excessive DNS query overloading: dropping TCP request from <cli [IP_address]>.

Explanation DNS queries are overloading the DNS server. The DNS server is automatically discarding DNS request traffic.

Recommended Action No action is required.

Error Message
%DNSSERVER-3-TOOSHORT: DNS query from [IP_address] too short

Explanation A client has sent a short DNS query packet to the server.

Recommended Action Check the client and the network attached to it. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DNSSERVER-3-UDPDNSOVERLOAD: Excessive DNS query overloading: dropping <id# [dec]> from <cli [IP_address]>.

Explanation DNS queries are overloading the DNS server. The DNS server is automatically discarding DNS request traffic.

Recommended Action No action is required.

DPM Messages

The following are Cisco AS5200 T1 BRIMUX error messages.

Error Message
%DPM-3-BADMAGIC: SMP hasn’t initialized the DPRAM.

Explanation The remote peer has not finished initializing its DPRAM.

Recommended Action Check the software compatibility between the peers.

Error Message
%DPM-3-BADSMP: SMP hasn’t initialized the DPRAM.

Explanation The remote peer has not finished initializing its DPRAM layout area.

Recommended Action Check the software compatibility between the peers.
**Error Message**

%DPM-3-NOIDB: Copernico failed on acquiring DPRAM idb.

**Explanation**  
Internal resources are not sufficient to create the IDB (internal descriptor for the interface).

**Recommended Action**  
Check the available memory capacity on the router.

---

**Error Message**

%DPM-3-OOBINIT: Copernico failed on out-of-band sub-system initialization.

**Explanation**  
The DPRAM initialization has failed.

**Recommended Action**  
Check the software compatibility between the peers.

---

**DRIP Messages**

The following are Duplicate Ring Protocol (DRIP) error messages.

**Error Message**

%DRIP-6-DRIP_CONFLICT: DRIP conflict with CRF [dec].

**Explanation**  
A DRIP conflict has occurred. The CRF of either the virtual ring or the pseudo ring is being reused in the network.

**Recommended Action**  
Ensure that the CRF virtual LAN ID of the virtual ring and the pseudo ring are unique in the network.

---

**Error Message**

%DRIP-3-DRIPFAIL: DRIP: Assertion failed: [chars]

**Explanation**  
An internal software error has occurred.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Director Response Protocol (DRP) error messages.

**Error Message**

%DRP-3-MULTICOMMAND: multiple DRP commands encountered

**Explanation**  Multiple DRP commands were found in a single DRP packet.

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

**Error Message**

%DRP-7-NOROUTE: no route for destination [IP_address]

**Explanation**  A software or hardware error has occurred.

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

**Error Message**

%DRP-3-NOWRITE: unable to send response to [IP_address]:[dec]

**Explanation**  A software or hardware error has occurred.

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

**Error Message**

%DRP-3-SUBNETTED: unable to determine metric for [IP_address], [IP_address] subnetted

**Explanation**  A software or hardware error has occurred.

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

The following are interface driver operational error messages.

Error Message
%DRVGRP-3-CMD: Interface ([chars]): [chars] (cause :{int})

Explanation This message provides interface driver initialization errors.

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

DSC Messages

The following are dial-shelf controller (DSC) error messages.

Error Message
%DSC-4-MANUALBOOT: Setting config-register to 0x0 will prevent the feature boards from booting when router shelf is rebooted

Explanation The DSC cannot be booted manually.

Recommended Action Set the configuration register to 0x2 for autoboot.

DSCC4 Messages

The following are DSCC4 driver error messages.

Error Message
%DSCC4-3-ANALYZE_DEVICE_FAILURE: [chars]

Explanation A DSCC4 analyze device has failed.

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

Error Message
%DSCC4-3-Generic: [chars]

Explanation A generic error message has been received.

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

%DSCC4-1-INITFAIL: DSCC4([dec]/[dec]), SCC[dec] init failed

Explanation  The software has failed to initialize or restart the SCC of a serial interface.

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

Error Message

%DSCC4-3-INVALID_CLOCKRATE: DSCC4([dec]/[dec]), invalid clock rate (index [dec]) requested

Explanation  An internal software error has occurred.

Recommended Action  Contact your Cisco technical support representative to obtain a software upgrade. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%DSCC4-3-NOMEMORY: No memory for [chars] of unit [dec]

Explanation  The router does not have enough memory to perform the specified function.

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

Error Message

%DSCC4-3-OWNERR: DSCC4([dec]/[dec]), Buffer ownership error, pak=[hex]

Explanation  An internal software error has occurred.

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

Error Message

%DSCC4-3-TOOBIG: DSCC4([dec]/[dec]), packet (size [dec]) too big

Explanation  A packet larger than the assigned MTU of this serial interface has been queued up for transmission. The system should recover.

Recommended Action  No action is required. A recurring message may indicate an error related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DSCC4-3-TOOSMALL: DSCC4([dec]/[dec]), packet (size [dec]) was less than 2 bytes

Explanation  A small packet (less than 2 bytes) was queued up for transmission. The interface cannot handle such small packets for transmission. The system should recover.

Recommended Action  No action is required. A recurring message may indicate a hardware error related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DSCC4-3-UNKNOWN_SCCS: DSCC4, Incorrect SCC number

Explanation  An internal software error has occurred.

Recommended Action  Contact your Cisco technical support representative to obtain a software upgrade. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

DSCCLOCK Messages

The following are dial shelf controller (DSC) clock error messages.

Error Message
%DSCCLOCK-3-DUP_PRI: Duplicate priority ([dec]) clock sources: slot [dec] port [dec], and slot [dec] port [dec].

Explanation  Two split-dial-shelf separate clock sources (one on each router shelf) have been configured with the same priority.

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

Error Message
%DSCCLOCK-3-FAIL: The System Primary Clock is down. Moving to HOLDOVER state and waiting to see if it comes up

Explanation  This message is generated whenever the current primary clock becomes invalid. The TDM clock circuit goes into a HOLDOVER state, and a holdover timer is started to check whether or not the clock becomes valid within the holdover time.

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

%DSCCLOCK-3-NOMEMORY: Failed to allocate memory for the DSC clocks

**Explanation**  The clock-switching software has failed to allocate memory while adding a clock.

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

**Error Message**

%DSCCLOCK-5-SWITCH1: Clock moving to NORMAL from FREERUN, selected clock is on slot [dec] port [dec] line [dec]

**Explanation**  The primary TDM clock, which has been running off the local oscillator of DSC in FREERUN mode, has switched to the line clock that is coming in through the specified trunk.

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

**Error Message**

%DSCCLOCK-3-SWITCH2: Clock moving to FREERUN from HOLDOVER

**Explanation**  The current primary TDM clock has been deleted. Therefore, the system primary clock has switched to the DSC local oscillator, which is the current highest-priority functioning clock. Phase continuity is maintained during the switchover.

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

**Error Message**

%DSCCLOCK-3-SWITCH3: Clock moving to NORMAL from HOLDOVER, selected clock is on slot [dec] port [dec] line [dec]

**Explanation**  The current primary TDM clock has been deleted. Therefore, the system primary has switched to the clock coming in from the trunk specified by the slot or the port, which is the current highest-priority functioning clock. Phase continuity is maintained during the switchover.

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

%DSCCLOCK-3-SWITCH4: Switching to the user configured clock on slot [dec] port [dec] line [dec]

Explanation  The TDM primary clock is switching from the default clock to the user-configured clock that is coming in through a specified trunk. Phase continuity is maintained during the switchover.

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

Error Message

%DSCCLOCK-3-SWITCH5: Switching to the clock on slot [dec] port [dec] line [dec]

Explanation  The TDM primary clock is switching to the clock that is coming in through the specified trunk, probably after the router shelf and feature cards have reloaded. The phase of the output TDM clock is forced to align with the input reference during the switchover.

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

Error Message

%DSCCLOCK-3-SWITCH6: Switching to the clock on slot [dec] port [dec] line [dec] as the current primary has gone bad

Explanation  The TDM primary clock has switched to a backup clock that is coming in through the specified trunk because the current primary clock has failed.

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

Error Message

%DSCCLOCK-3-SWITCH7: Moving to NORMAL mode from HOLDOVER mode, clock is slot [dec] port [dec] line [dec]

Explanation  The TDM primary clock, which is in HOLDOVER state and whose source was a trunk port, has switched to the same trunk port and moved to NORMAL state, with phase alignment between input source clock and output TDM reference clock. The router shelf and the feature cards have probably reloaded.

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

%DSCCLOCK-3-SWITCH8: Moving to NORMAL mode from HOLDOVER mode without phase correction, clock is slot [dec] port [dec] line [dec]

Explanation The source trunk port of the TDM primary clock, which had failed, has recovered within the holdover timer. Therefore, the primary clock has moved from HOLDOVER to NORMAL state without phase correction between input trunk reference and the output TDM clock.

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

Error Message

%DSCCLOCK-3-SWITCH_ERROR1: Failed to select any clock as the system clock. Remaining in HOLDOVER mode

Explanation The clock selection algorithm has failed to select any clock as the TDM primary clock.

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

Error Message

%DSCCLOCK-3-UP: The System Primary Clock is up. Moving to NORMAL state from HOLDOVER

Explanation The TDM primary clock, which had failed, has recovered within the holdover time. Therefore, the TDM primary clock switched to NORMAL state from the HOLDOVER state.

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

DSC_ENV Messages

The following are Cisco AS5800 environmental monitor error messages.

Error Message

%DSC_ENV-1-CRITICAL: Slot [dec], [chars] [int] [chars]

Explanation The specified card environmental parameters are outside the normal range of operation.

Recommended Action Check the blowers and the ambient room temperature.
Error Message
%DSC_ENV-0-CRITICAL_BLOWER: Slot [dec], [chars]

Explanation Fans in the blower unit have failed. Operation of the unit may cause cards to overheat and shut down.

Recommended Action Power down the dial shelf to avoid overheating, and replace the faulty fans.

Error Message
%DSC_ENV-0-DSC_FB_POWERDOWN: Temperature/Voltage has reached a critical level for DSC in slot [dec]. No backup DSC available. Powering down all feature boards in the chassis.

Explanation The temperature or voltage sensor has reached a condition outside the acceptable range for the DSC. No backup system is available to control and monitor the feature cards, so all feature cards are being shut down.

Recommended Action Attempt to resolve voltage and temperature problems. If the problem persists, contact your Cisco technical support representative for assistance.

Error Message
%DSC_ENV-2-NORMAL: Slot [dec], [chars] [chars] [int] [chars]

Explanation The environmental parameters have returned from a state other than normal to a state that is normal.

Recommended Action No action is required.

Error Message
%DSC_ENV-0-SHUTDOWN: Slot [dec], [chars] [int] [chars]

Explanation The specified environmental parameters of the card are outside the normal range of operation.

Recommended Action Check the blowers and the ambient room temperature.

Error Message
%DSC_ENV-2-WARNING: Slot [dec], [chars] [int] [chars]

Explanation The specified environmental parameters of the card are outside the normal range of operation.

Recommended Action Check the blowers and the ambient room temperature.
Error Message

%DSC_ENV-2-WARNING_BLOWER: Slot [dec], [chars]

Explanation  A fan in the blower unit has failed. The affected unit can continue to operate, but the failure should be fixed.

Recommended Action  Replace the faulty fan.

DSCEXTCLK Messages

The following are dial shelf controller (DSC) clock error messages.

Error Message

%DSCEXTCLK-5-SWITCH1: Clock moving to NORMAL from FREERUN, selected clock is external clock on DSC

Explanation  The primary TDM clock, which has been running off the local oscillator of the DSC in FREERUN mode, is switching to the external network reference clock whose source was the DSC front panel.

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

Error Message

%DSCEXTCLK-3-SWITCH3: Clock moving to NORMAL from HOLDOVER, selected clock is external clock on DSC

Explanation  The current primary TDM clock has been deleted. Therefore, the system primary clock has switched to the clock that is coming in through the external network reference clock on the DSC front panel, which is the current highest-priority functioning clock. Phase continuity is maintained during the switchover.

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

Error Message

%DSCEXTCLK-3-SWITCH4: Switching to the user configured external clock on DSC

Explanation  The TDM primary clock is switching from the default clock to the user-configured clock that is coming in through the DSC front panel clock feed. Phase continuity is maintained during the switchover.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DSCEXTCLK-3-SWITCH5: Switching to the external clock on DSC

Explanation  The TDM primary clock is switching to the clock that is coming in through the DSC front panel, probably after the router shelf and feature cards have reloaded. The phase of the output TDM clock is forced to align with the input reference during the switchover.

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

Error Message
%DSCEXTCLK-3-SWITCH6: Switching to the external clock on DSC as the current primary has gone bad

Explanation  The current primary clock has failed. The TDM primary clock is switching to a backup clock that is coming in through the DSC front panel external clock feed.

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

Error Message
%DSCEXTCLK-3-SWITCH7: Moving to NORMAL mode from HOLDOVER mode, selected external clock on DSC

Explanation  The TDM primary clock, which was in HOLDOVER state and whose source was the DSC front panel clock, has switched to the same clock and returned to NORMAL state.

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

Error Message
%DSCEXTCLK-3-SWITCH8: Moving to NORMAL mode from HOLDOVER mode without phase correction, selected external clock on DSC

Explanation  The DSC front panel clock that is the source of the current TDM primary clock, which had failed, has recovered within the holdover time. Therefore, the primary clock has moved from HOLDOVER state to NORMAL state without a phase correction between the input reference and the output TDM clock.

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

The following are dial shelf controller (DSC) redundancy clock error messages.

Error Message
%DSCREDCLK-2-BACTFAIL: Clock on other DSC has failed – immediate clock takeover

Explanation  The backup DSC clock has detected a failure on the other DSC clock hardware and will become the active clock manager.

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

Error Message
%DSCREDCLK-2-BACTGONE: Removal of other DSC detected – immediate clock takeover

Explanation  The DSC clock has detected the removal of the other DSC clock hardware and will become the active clock manager.

Recommended Action  Reinstall a DSC clock in the other DSC slot to replace the removed DSC hardware. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DSCREDCLK-3-BACTIOSF: Other DSC IOS keepalive failure - clock takeover

Explanation  The other DSC has failed to respond to keepalives sent to the current DSC. Therefore, the current DSC will become the active clock manager.

Recommended Action  Recover or replace the failed DSC to provide a backup DSC.

Error Message
%DSCREDCLK-2-BCLKCMDFAIL: Clock command hardware failed

Explanation  A clock hardware command has failed.

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

%DSCREDCLK-5-BNORMAL: Backup clock moving to NORMAL to phase lock to active clock

**Explanation** The backup DSC has detected a change to the clock.

**Recommended Action** No action is required.

---

**Error Message**

%DSCREDCLK-5-BSWITCHE: Backup clock matched to active clock reference, external clock on DSC

**Explanation** The backup DSC has detected a change in the selected clock reference on the active DSC and has changed its own clock hardware to match the new selection. The selected clock reference is now supplied from the DSC front panel external clock.

**Recommended Action** No action is required.

---

**Error Message**

%DSCREDCLK-5-BSWITCHT: Backup clock matched to active clock reference, slot [dec] line [dec]

**Explanation** The backup DSC has detected a change in the selected clock reference on the active DSC and has changed its own clock hardware to match the new selection. The selected clock reference is now supplied from the specified trunk line.

**Recommended Action** No action is required.

---

**Error Message**

%DSCREDCLK-3-BTAKEDELAY: Active DSC requests backup to takeover clock - delaying for sync

**Explanation** The other DSC has requested that the current DSC take over active clock management, but the current DSC is waiting for clock hardware synchronization before doing so to avoid call loss.

**Recommended Action** No action is required.

---

**Error Message**

%DSCREDCLK-3-BTAKEOVER: Active DSC requests backup to takeover clock - done

**Explanation** The other DSC has requested that the current DSC take over active clock management, and the current DSC has become the active clock manager.

**Recommended Action** No action is required.
**DSC_REDUNDANCY Messages**

The following are Cisco AS5800 dial shelf controller redundancy error messages.

**Error Message**

%DSC_REDUNDANCY-3-MODECONFLICT: Other DSC/router in split mode

**Explanation**  
There is another router connected to the dial shelf. In this situation, both routers must be configured in split mode.

**Recommended Action**  
Configure the other router in split mode.

**Error Message**

%DSC_REDUNDANCY-3-SLOTCONFLICT: Slot ownership conflict detected for slot [dec]

**Explanation**  
Another router that is connected to the dial shelf is claiming ownership of a slot that this router is also claiming.

**Recommended Action**  
Resolve the ownership conflict by reconfiguring one of the routers so that it does not own the slot.

**Error Message**

%DSC_REDUNDANCY-3-TDMSPITCONFLICT: Tdm Split conflict detected, my tdm [dec], other rs [dec]

**Explanation**  
Another router connected to the dial shelf is claiming ownership of backplane time slots that this router requires. This error is likely caused by OIR activity that is moving trunk cards from one half of the split to the other.

**Recommended Action**  
Resolve the ownership conflict by reloading the router that has a TDM number greater than the trunk capacity for that router. In some situations, it may be necessary to reset both routers.

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**DSI Messages**

The following are Cisco AS5800 dial-shelf interconnect (DSI) board error messages.

**Error Message**

%DSI-3-AGENTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

**Explanation**  
An internal software error has occurred. The software detected an invalid state change for the MBus agent of the specified slot.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DSI-3-AGENTSTSCNCHG: From [chars] ([dec]) to [chars] ([dec]) for slot [dec]

Explanation  The software has detected an MBus agent state change for the specified slot.

Recommended Action  No action is required.

Error Message
%DSI-2-BADPORT: Out of range PCI port [dec]

Explanation  An internal software error has occurred. The software specified an out-of-range port on the dial shelf interconnect board.

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

Error Message
%DSI-3-EVENT: Unknown event [dec] for slot [dec]

Explanation  An internal software error has occurred. The software has generated an unknown event for the specified slot.

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

Error Message
%DSI-3-SLOTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

Explanation  An internal software error has occurred. The software detected an invalid state change for the specified slot.

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

Error Message
%DSI-3-SLOTSTSCNCHG: From [chars] ([dec]) to [chars] ([dec]) for slot [dec]

Explanation  The software has detected a state change for the specified slot.

Recommended Action  No action is required.
DSIP Messages

The following are distributed system interconnect protocol (DSIP) error messages.

Error Message
%DSIP-3-IPC_CLIENT: IPC subsystem API error([chars]), [chars], [dec]

Explanation  A problem has occurred with the NIP reliable stack. The exact problem can be decoded further by the IPC error message (first parameter), the action involved (second parameter), and the client ID (third parameter).

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

Error Message
%DSIP-3-IPC_PORT: IPC subsystem API error([chars]), [chars], [chars]

Explanation  The NIP has encountered a problem with the port specified in the error message. The exact problem can be decoded further by the IPC error message (first parameter), the action involved (second parameter), and the port name (third parameter).

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

Error Message
%DSIP-3-IPC_SEAT: IPC subsystem API error, can not create seat by the seatid [dec] for the slot [dec]

Explanation  The NIP reliable stack has failed to create a seat for the specified slot.

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

DSIPPF Messages

The following are Nitro Interconnect Protocol error messages.

Error Message
%DSIPPF-3-DSIP_SEND_FAILURE: Failed to send DSIP message - number of failures [dec]

Explanation  The NIP encountered an error when it sent a message, and the message has been discarded after three unsuccessful resends.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are feature board (FB) modem card error messages.

Error Message
%DS_MODEM-3-BADCB: Unexpected DSIP data callback for modem

Explanation  An unexpected software event has occurred.

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

Error Message
%DS_MODEM-3-FLOW_CONTROL: DS-RS flow control has got out of sync, connection has too many particles free. slot:[dec] ttynum:[dec] parts_avail:[dec]

Explanation  The flow control accounting on the DS has gotten out of synchronization.

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

Error Message
%DS_MODEM-3-LOW_PARTICLES: Not enough particles - modem number:[dec] particles needed:[dec] available:[dec]; CTS [chars]

Explanation  A breakdown of flow control between the RS and the DS has occurred. The RS has sent more particles than are available for this connection.

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

Error Message
%DS_MODEM-3-NORXPAK: Static receive paktype unavailable

Explanation  A software structure was found in an unexpected state during run time for the indicated modem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DS_MODEM-3-OUTPUT_DROP: Output drop - modem number[:dec] refunded [dec]; particle count [dec], pool size [dec], queue size [dec]

Explanation  The system was unable to allocate particles for sending traffic to the modem module, indicating a breakdown of flow control between the RS and DS.

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

DSPDD Messages

The following are Digital Signal Processor Device Driver (DSPDD) error messages.

Error Message
%DSPDD-1-DSPFWFAILURE: DSPDD internal firmware error[[chars]:[dec]

Explanation  The router or access server has detected an internal error.

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

Error Message
%DSPDD-1-INTERNALERROR: DSPDD internal error[[chars]:[dec]

Explanation  The router or access server has detected an internal error.

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

Error Message
%DSPDD-1-NOBUFFERS: IOS buffer pool unavailable [[chars]:[dec]]

Explanation  The router or access server could not allocate internal resources.

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

Error Message
%DSPDD-1-NOIOSBUFFERS: IOS buffer pool unavailable [[chars]:[dec]]

Explanation  The router or access server could not allocate internal resources.

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

Error Message
%DSPDD-1-NOIOSMEMORY: IOS memory unavailable [[chars]:[dec]]

Explanation  The router or access server could not allocate memory for internal data structures.

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

Error Message
%DSPDD-1-NOMEMORY: IOS memory unavailable [[chars]:[dec]]

Explanation  The router or access server could not allocate memory for internal data structures.

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

DSPRM Messages

The following are Digital Signal Processor Device Driver (DSPDD) error messages.

Error Message
%DSPRM-5-DSPFAIL: DSP [dec] in slot [chars], is in the failed state

Explanation  The DSP entered the FAILED state because of alarm indications.

Recommended Action  Replace the DSP resource.

Error Message
%DSPRM-3-INSUFFICIENT: Insufficient DSP resources for timeslot [dec] on port [chars]

Explanation  The configuration requires more DSP resources than are available.

Recommended Action  Change the configuration to specify fewer used time slots. Install additional DSP resources to allow for more complex configurations.
Error Message
%DSPRM-5-JUKEBOX: Jukebox transmit overlay resp [dec] on slot [chars], failed

Explanation The jukebox received a FAILED response code.

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

Error Message
%DSPRM-5-JUKEBOX_UPDOWN: DSP Jukebox([dec]) in slot [chars], changed state to [chars]

Explanation The DSP jukebox has changed state.

Recommended Action No action is required.

Error Message
%DSPRM-5-KEEPALIVE: DSP [dec] in slot [chars], NOT RESPONDING - auto restart([dec] times)

Explanation The DSP has failed the background keepalive test.

Recommended Action No action is required.

Error Message
%DSPRM-5-SETCODEC: Configured codec [dec] is not supported with this dsp image.

Explanation Codec negotiation has failed.

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

Error Message
%DSPRM-5-UPDOWN: DSP [dec] in slot [chars], changed state to [chars]

Explanation The DSP resource has changed state.

Recommended Action No action is required.
DSPU Messages

The following are downstream physical unit (DSPU) error messages.

**Error Message**

%DSPU-3-ActpuNegResponse: ACTPU Neg rsp received from PU [chars]

**Explanation** The remote PU has rejected the request from the router for an SSCP-PU session.

**Recommended Action** Verify the PU configuration parameters at the router and at the remote PU. Determine whether the problem exists at the remote PU, and if so, correct it. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%DSPU-3-CLSIBadAdptCrr: CLSI bad Adaptor correlator, header= [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**

%DSPU-3-CLSIBadIdentifier: CLSI bad identifier, header= [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**

%DSPU-3-CLSIBadIdentifierType: CLSI bad identifier type, header= [chars]

**Explanation** An internal software error has occurred.

**Recommended Action** If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DSPU-3-CLSIBadLength: CLSI bad length, header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-CLSIBadPrimitiveCmd: CLSI bad primitive command, header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-CLSIBadPrimitiveType: CLSI bad primitive type, header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-CLSIBadReturnCode: CLSI bad return code: [dec], header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-CLSIUnexpectActSapCnf: CLSI unexpected ActivateSapCnf, header= [chars]

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DSPU-3-CLSIUnexpectDeactSapCnf: CLSI unexpected DeactivateSapCnf, header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-CLSIUnexpectEnableCnf: CLSI unexpected EnableCnf, header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-CLSIUnexpectIdStnInd: CLSI unexpected IdStnInd, header= [chars]

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-DSPU_BufferCorrupted: DSPU could not free buffer - buffer corrupted

Explanation  An internal software error has occurred.

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

Error Message
%DSPU-3-LSConnInFailed: Connect in from remote address [chars] failed.

Explanation  A connection with the remote station could not be established.

Recommended Action  Verify the configuration parameters at the router and at the remote station. Determine whether the router is configured to accept connections from this remote station.
Error Message
%DSPU-3-LSConnInFailedNoMem: Connect in from remote address [chars] failed; insufficient memory.

Explanation A connection with the remote station could not be established because of insufficient memory in the router.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%DSPU-3-LSConnInFromHostFailed: Connect in from host [chars] with remote address [chars] failed.

Explanation A connection with the remote host could not be established.

Recommended Action Verify the host configuration parameters at the router and at the host. Determine whether the router is configured to accept connection from this host.

Error Message
%DSPU-3-LSConnInFromPuFailed: Connect in from pu [chars] with remote address [chars] failed.

Explanation A connection with the remote PU could not be established.

Recommended Action Verify the PU configuration parameters at the router and at the remote PU. Determine whether the router is configured to accept a connection from this remote PU.

Error Message
%DSPU-3-LSConnOutToHostFailed: Connect out to host [chars] failed.

Explanation A connection with the remote host could not be established.

Recommended Action Verify the host configuration parameters at the router and at the host. Determine whether the host is active and responding to connection requests.

Error Message
%DSPU-3-LSConnOutToPuFailed: Connect out to pu [chars] failed.

Explanation A connection with the remote PU could not be established.

Recommended Action Verify the PU configuration parameters at the router and at the remote PU. Determine whether the remote PU is active and responding to connection requests.
**Error Message**

%DSPU-3-LSInvalidMaxIFrame: Connection attempt failed from XID= [chars], Invalid MaxIFrame= [dec]

**Explanation** An invalid MaxIFrame value in an XID was received from the remote station; connection with the remote station could not be established.

**Recommended Action** Correct the link-station configuration at the remote station.

---

**Error Message**

%DSPU-3-LSInvalidWindowSize: Connection attempt failed from XID= [chars], Invalid WindowSize= [dec]

**Explanation** An invalid WindowSize value in an XID was received from the remote station; connection with the remote station could not be established.

**Recommended Action** Correct the link-station configuration at the remote station.

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**Error Message**

%DSPU-3-LSNoACTPUCapability: Connection attempt failed from XID= [chars], ACTPU not supported

**Explanation** The remote station did not request PU 2.0 activation; connection with the remote station is terminated.

**Recommended Action** Correct the link-station configuration parameters at the remote station to request an SSCP-PU session with the router.

---

**Error Message**

%DSPU-3-LSXIDNegotiationError: XID Negotiation Error, bad byte= [dec], bad bit= [dec], sense data= [chars]

**Explanation** An XID3 with an error indication was received from the remote station; connection with the remote station could not be established.

**Recommended Action** From the CV 22 byte or bit information, determine which field in the XID3 is rejected by the remote station, and correct the link-station configuration parameters at either the router or the remote station.

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**Error Message**

%DSPU-3-NotifyNegRsp: LU [dec] received a Notify Neg Resp from host [chars]

**Explanation** The remote host rejected the request from the router to activate or deactivate an SSCP-LU session.

**Recommended Action** Verify the host configuration parameters at the router and at the remote host. Determine whether the problem exists at the remote host and, if so, correct it. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**
%DSPU-3-SnaBadData: Bad SNA data received from PU [chars], data= [chars]

**Explanation** Unrecognized SNA data was received from the remote PU.

**Recommended Action** Correct the problem at the remote PU. If the problem persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%DSPU-3-UnknownXid: XID Format not supported, XID= [chars]

**Explanation** Unsupported XID was received from the remote station. A connection with the remote station could not be established.

**Recommended Action** Configure the remote station to send supported XID (if possible). Supported XID formats are XID Format 0 XID Format 3.

**DS_TDM Messages**

The following are dial shelf time-division multiplexing (TDM) error messages.

**Error Message**
%DS_TDM-3-ASSERT_FAIL: Slot [dec]: Assertion failed: file '[chars]', line [dec]

**Explanation** An internal sanity check has failed.

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

**Error Message**
%DS_TDM-3-ATTACH_ERR: Slot [dec]: tried but failed to set COMBO_SELECT bit on [chars] FB; cannot attach to backplane

**Explanation** The TDM subsystem could not configure the FB to attach to the backplane in the manner desired. The FB is defective.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DS_TDM-3-BAD_CONN: Slot [dec]: unrecognized TDM connect message received ([dec]) on [chars] feature board

Explanation An unrecognized TDM connect message has been received.

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

Error Message
%DS_TDM-3-BAD_DISCONN: Slot [dec]: unrecognized TDM disconnect message received ([dec]) on [chars] feature board

Explanation An unrecognized TDM disconnect message has been received.

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

Error Message
%DS_TDM-3-BAD_DSIP: Slot [dec]: unrecognized DSIP message received ([dec]) on [chars] feature board

Explanation An unrecognized DSIP message has been received.

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

Error Message
%DS_TDM-3-BAD_MAPPING: Slot [dec]: Legacy FB ([chars]), with static port-to-DS0 mapping, was passed dynamic mapping info

Explanation A software error has caused dynamic port-to-DS0 mapping information to be passed to a statically mapped FB.

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

Error Message
%DS_TDM-3-BAD_S4_POWER_UP: Slot [dec]: [chars] powered-up with one or more incorrect default settings([chars])

Explanation The specified S4 ASIC did not power up with some of the default settings expected by the software. Therefore, the integrity of the TDM data could have been compromised.

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

%DS_TDM-3-CONN_FAILED: Slot [dec]: handling of sub-msg
([dec]/[int]/[int]/[int]/[int]/[int]) [int] of [int] failed; processing of rest of DSIP msg aborted

Explanation  The processing of a submessage encapsulated within a DSIP TDM_CONNECT message has failed. Any remaining submessages within the DSIP message were not processed.

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

Error Message

%DS_TDM-3-CONV_CLOSE: Slot [dec]: open MT8986 (addr: [hex]) connection failed - STo[dec], CHo[dec]

Explanation  An attempt to disable a rate-converted connection has failed.

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

Error Message

%DS_TDM-3-CONV_OPEN: Slot [dec]: open MT8986 (addr: [hex]) [chars] connection failed - STi[dec], CHi[dec], STo[dec], CHo[dec]

Explanation  An attempt to establish a rate-converted connection has failed.

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

Error Message

%DS_TDM-3-DISC_FAILED: Slot [dec]: handling of sub-msg
([dec]/[int]/[int]/[int]/[int])/[int]) [int] of [int] failed; processing of rest of DSIP msg aborted

Explanation  The processing of a submessage encapsulated within a DSIP TDM_DISCONNECT message has failed. Any remaining submessages within the DSIP message have not been processed.

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

%DS_TDM-3-DISC_FOR_NO_CONN: Slot [dec]: got disc msg for non-existent conn: [chars]-st[int]-ts[int]/gts>[int]>[int]<[int]/[chars]-st[int]-ts[int]

Explanation  The FB has received a request to disconnect an unrecognized connection.

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

Error Message

%DS_TDM-3-NO_RECOMB_BUS_DS0: Slot [dec]: no free Recombination bus DS0s left; connection not made

Explanation  The TDM mezzanine card of the Raiko-based FB does not have any free recombination bus DS0s.

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

Error Message

%DS_TDM-3-RECOMB_BUS_TS_BAD_USE: Slot [dec]: convention broken for Mezz’s Recomb. bus t’slots: [chars]-st[int]-ts[int]/gts>[int]>[int]<[int]/[chars]-st[int]-ts[int]

Explanation  The usage convention has been broken for recombination bus time slots. This broken usage convention is a TDM error.

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

Error Message

%DS_TDM-3-S4_INT: Slot [dec]: [chars] generated interrupt [chars]

Explanation  The S4 ASIC has generated the specified interrupt message.

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

Error Message

%DS_TDM-3-TDM_CLOSE: Slot [dec]: close MT90820 (addr: [hex]) connection failed - STo[dec], ChO[dec]

Explanation  An attempt to disable a digitally switched connection has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DS_TDM-3-TDM_OPEN: Slot [dec]: open MT90820 (addr: [hex]) connection failed - STi[dec], CHi[dec], STo[dec], CHo[dec]

Explanation  An attempt to establish a digitally switched connection has failed.

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

Error Message
%DS_TDM-3-UNEXPECTED_INT: Slot [dec]: got unexpected interrupt from masked-out source ’[chars]’

Explanation  Although it has been masked out, an interrupt has been received from the specified source.

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

Error Message
%DS_TDM-3-UNSUPPORTED_MEZZ_VER: Slot [dec]: the detected version ([int]) of Mezzanine card is not supported by this software image

Explanation  The software does not support the mezzanine card that is currently installed on the Raiko card.

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

Error Message
%DS_TDM-3-VERIFY_DISCONN: Slot [dec]: [chars] failed to verify disconnect: sto = [dec], ch_out = [dec]

Explanation  An attempt to verify a TDM hardware component has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DS_TDM-3-VERIFY_HILOWMEM: Slot [dec]: [chars] failed to verify himem, or lowmem: sto = [dec], ch_out = [dec], sti = [dec], ch_in = [dec]

Explanation  An attempt to verify a TDM hardware component has failed.

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

Error Message
%DS_TDM-3-VERIFY_IMS: Slot [dec]: [chars] failed to verify IMS: [hex]

Explanation  An attempt to verify a TDM hardware component has failed.

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

**DSX0 Messages**

The following are CT1 RBS time slot status error messages.

Error Message
%DSX0-5-RBSLINEDBUSYOUT: RBS of slot [dec] controller [dec] timeslot [dec] is dynamic busyout

Explanation  RBS has been dynamically busied out on the specified time slot and controller.

Recommended Action  No action is required.

Error Message
%DSX0-5-RBSLINEDOWN: RBS of controller [dec] timeslot [dec] is down

Explanation  RBS has been disabled on the specified time slot and controller.

Recommended Action  No action is required.

Error Message
%DSX0-5-RBSLINESBUSYOUT: RBS of slot [dec] controller [dec] timeslot [dec] is static busyout

Explanation  RBS has been statically busied out on the specified time slot and controller.

Recommended Action  No action is required.
**Error Message**

%DSX0-5-RBSLINEUNBUSYOUT: RBS of slot [dec] controller [dec] timeslot [dec] is unbusyout

**Explanation**  RBS has been restored from a busied out condition on the specified time slot and controller.

**Recommended Action**  No action is required.

**Error Message**

%DSX0-5-RBSLINEUP: RBS of controller [dec] timeslot [dec] is up

**Explanation**  RBS has been enabled on the specified time slot and controller.

**Recommended Action**  No action is required.

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**DSX1 Messages**

The following are Channelized E1 (Europe) and T1 (US) telephony standard error messages.

**Error Message**

%DSX1-6-CLOCK_CHANGE: [chars] clock is now selected as clock source

**Explanation**  The los, ais, or cli command was entered, causing a change to the selected clock.

**Recommended Action**  No action is required.

**Error Message**

%DSX1-3-FIRMWARE_RESTART: T1/E1 Firmware in slot [dec] restarted

**Explanation**  The T1/E1 firmware has restarted. All of the active calls on the T1/E1 lines will be disconnected, and the controllers will come back up within few seconds.

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

**Error Message**

%DSX1-1-FIRMWARE_RESTART_FAILED: Trunk Firmware in slot [dec] reset failed

**Explanation**  The trunk could not be restarted.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DSX1-1-FIRMWARE_RUNNING: T1/E1 Firmware in slot [dec] is running

Explanation The T1/E1 firmware is now running after recovering from critical error.

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

Error Message
%DSX1-1-FIRMWARE_STOPPED: T1/E1 Firmware in slot [dec] is not running

Explanation A critical error has occurred in the T1/E1 firmware, and it has stopped running. The access server must be reloaded.

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

Error Message
%DSX1-3-M32_AR_FAILURE: Munich 32 action request failure: Ctrl = [hex], Channel = [dec]

Explanation Munich 32 is not responding to a request.

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

Error Message
%DSX1-3-M32_AR_TIMEOUT: Munich 32 action request timeout: Ctrl = [hex], Channel = [dec]

Explanation Munich 32 is not responding to an action request.

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

Error Message
%DSX1-3-M32_BAD_BITRATE: Munich 32 bit rate not match: Ctrl = [hex], Channel = [dec]

Explanation The command cannot be carried out because of a bit rate mismatch.

Recommended Action Ensure that the configured data matches the supported speed.
Error Message
%DSX1-3-M32_BAD_INTQ: Munich 32 bad interrupt queue: Ctrl = [hex], Channel = [dec]

Explanation  There might be an overflow on the interrupt queue.

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

Error Message
%DSX1-3-M32_BAD_STATE: Munich 32 in unknown state: Ctrl = [hex], Channel = [dec]

Explanation  Munich 32 has gone into an unknown state.

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

Error Message
%DSX1-3-M32_ERR: Munich 32 error configuring channelized interface: Ctrl = [hex], Channel = [dec]

Explanation  Unidentified errors have occurred on Munich 32.

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

Error Message
%DSX1-3-M32_ILLEGAL_CHANNEL: Munich 32 channel invalid: Ctrl = [hex], Channel = [dec]

Explanation  The channel select is not valid.

Recommended Action  Ensure that the channel supports the needed feature.

Error Message
%DSX1-1-M32_INPUT_CONGEST: Munich 32 channel input queue is congested

Explanation  The receiver cannot allocate receive buffers because the input queue is at its maximum. Data is coming in faster than the receiver can handle.

Recommended Action  Reduce the volume of data that goes into this channel or increase the number of input queues for the channel.
Error Message
%DSX1-3-M32_MEM_ALLOC: Munich 32 channel memory allocation error: Ctrl = [hex], Channel = [dec]

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%DSX1-3-M32_NO_TIMESLOT: Munich 32 no timeslot available: Ctrl = [hex], Channel = [dec]

Explanation  All of the time slots on Munich 32 are assigned.

Recommended Action  Ensure that there are time slots available before choosing one.

Error Message
%DSX1-3-M32_TIMESLOT_IN_USE: Munich 32 timeslot already configured: Ctrl = [hex], Channel = [dec]

Explanation  This time slot has already been assigned and cannot be used

Recommended Action  Ensure that the time slot is available before choosing it.

Error Message
%DSX1-3-NOMEMORY: Unit [dec], no memory for [chars]

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

DTP Messages

The following are Dynamic Trunking Protocol (DTP) filtering error messages.

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

Explanation  The two ports on the specified link are set to the ON mode, but one port is set to 802.1Q encapsulation, and the other port is set to ISL encapsulation. When both ports on a link are set to the ON mode, their encapsulation types must match.

Recommended Action  Configure both ports on the link to have the same encapsulation type.
Error Message
%DTP-4-MEM_UNAVAIL: Memory was not available to perform the trunk negotiation action

Explanation There is not enough memory to negotiate trunks.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

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

Explanation The specified port has changed its status from trunk port to access port.

Recommended Action No action is required.

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

Explanation A timer that is used by the trunking protocol has expired at an unexpected time. This problem is corrected internally.

Recommended Action There are likely no long-term problems associated with the timer expiration. However, if further problems with trunking occur, it is recommended that you reload the device.

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

Explanation The specified trunk port has changed the encapsulation type it uses.

Recommended Action No action is required.

Error Message
%DTP-5-TRUNKPORTTON: Port [chars] has become [chars] trunk

Explanation The specified port has changed from being an access port to a trunk port, using the specified encapsulation.

Recommended Action No action is required.

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

Explanation The device could not negotiate the trunks because an internal operation has generated an unknown error.

Recommended Action Reload the device.
DUAL Messages

The following are Enhanced Interior Gateway Routing Protocol (EIGRP) error messages.

Error Message
%DUAL-3-ANCHORCOUNT: Anchor count negative

Explanation A software or hardware error has occurred.

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

Error Message
%DUAL-3-BADCOUNT: Route [chars], [dec] successors, [dec] rdb

Explanation A hardware or software error has occurred.

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

Error Message
%DUAL-6-EVENT: [chars], [chars]

Explanation A hardware or software error has occurred.

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

Error Message
%DUAL-3-INTERNAL: [chars] [dec]: Internal Error

Explanation A software or hardware error has occurred.

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

Error Message
%DUAL-3-LINKSEXIST: Interface [chars] going down and [dec] links exist

Explanation An interface is going down or is being removed from routing through the IGRP, but not all links (neighbors) have been removed from the topology table.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DUAL-3-LINKSTILLUP: Link [dec] [chars] still exists on [chars]

Explanation  A hardware or software error has occurred.
Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DUAL-3-MULTIFLOW: Flow control error, [chars], on [chars]

Explanation  A hardware or software error has occurred.
Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%DUAL-5-NBRCHANGE: [chars] [dec]: Neighbor [chars] ([chars]) is [chars]: [chars]

Explanation  A neighbor has gone up or down.
Recommended Action  No action is required.

Error Message
%DUAL-3-NOBUFFER: No buffers available for [int] byte packet

Explanation  The DUAL software was unable to allocate a packet buffer. The system may be out of memory.
Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%DUAL-3-NOHANDLE: Handle [dec] is not allocated in pool.

Explanation  A hardware or software error has occurred.
Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DUAL-3-NOMATCH: Nexthop and infosource don’t match. N = [chars], I = [chars]

Explanation  A hardware or software error has occurred.

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

Error Message
%DUAL-3-NOSOCKET: Unable to open socket for AS [dec]

Explanation  A hardware or software error has occurred.

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

Error Message
%DUAL-3-PEERSEXIST: [dec] peers exist on IIDB [chars]

Explanation  A software or hardware error has occurred.

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

Error Message
%DUAL-3-PROBESEQ: Bad probe sequence [dec] from [chars], expecting [dec]

Explanation  A software or hardware error has occurred.

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

Error Message
%DUAL-3-RDBLEFT: Lingering DRDB deleting IIDB, dest [chars], nexthop [chars] ([chars]), origin [chars]

Explanation  A software or hardware error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%DUAL-3-REFCOUNT: Negative refcount in pakdesc [hex]

Explanation  A software or hardware error has occurred.

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

Error Message
%DUAL-3-SIA: Route [chars] stuck-in-active state in [chars] [dec]. Cleaning up

Explanation  A hardware or software error has occurred.

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

Error Message
%DUAL-3-UNKTIMER: Unknown timer type [dec] expiration

Explanation  A hardware or software error has occurred.

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

DVMRP Messages

The following are Distance Vector Multicast Routing Protocol (DVMRP) error messages.

Error Message
%DVMRP-5-BADMASK: Bad mask [IP_address] received from [IP_address], Report ignored

Explanation  A DVMRP route that has corrupted information was received and discarded by another system.

Recommended Action  No immediate action is required. This error indicates a problem with the system that sent the bad routes or with the network media connected to that system. If the condition persists, contact the administrator of the malfunctioning system.
Error Message

%DVMRP-5-NBRDOWN: Neighbor [IP_address] went down on [chars]

Explanation  DVMRP activity has been shut down on the specified interface. This may be because the interface has been taken down or because the DVMRP routes on that interface have all expired. Note that DVMRP activity is mutually exclusive of tagswitching, so if the interface itself is still up, tagswitching will be automatically reenabled on that interface.

Recommended Action  No action is required.

Error Message

%DVMRP-5-NBRUP: Neighbor [IP_address] is up on [chars]

Explanation  A DVMRP multicast neighbor is active on the specified interface because of the arrival and acceptance of DVMRP probes via that interface. A multicast session has been subscribed via a path passing through this router. Note that DVMRP activity is mutually exclusive of tagswitching, so tag switching may be disabled on that interface.

Recommended Action  No action is required.

Error Message

%DVMRP-4-NONPRUNER: Rejecting non-pruning peer [IP_address] ([chars])

Explanation  The router has rejected an IGMP report from a peer that is not capable of DVMRP pruning and grafting. This is because the router was configured with the `ip dvmrp reject-non-pruners` command to reject nonpruning peers.

Recommended Action  If rejection of nonpruning DVMRP hosts is consistent with site policy, no action is required. Otherwise, the configuration can be changed by using the `no ip dvmrp reject-non-pruners` command.

Error Message

%DVMRP-4-REJDEFROUTE: Rejecting default route from [IP_address]

Explanation  Two routers on each side of a tunnel are sending the default route to each other.

Recommended Action  Correct the router configuration.

Error Message

%DVMRP-4-ROUTEHOG: Receiving [dec] routes from [IP_address] ([chars]) in the last [chars]

Explanation  The number of DVMRP routes that were received from the specified system exceeds the warning threshold for the DVMRP route traffic.

Recommended Action  Use the `ip dvmrp routehog-notification` command to change the warning threshold if necessary. Otherwise, check the system that is generating excessive DVMRP route traffic to find out the reason. The system may be in a loop and generating invalid information.
Error Message
%DVMRP-4-ROUTELIMIT: Exceeded route-limit of [dec] routes, check your access-lists

Explanation The number of DVMRP multicast routes exceeds the configured maximum number. New routes (subscribers and viewers) cannot be added unless the configuration is changed.

Recommended Action If priority multicast traffic is carried by this router, use the `ip dvmrp route-limit` command to increase the number of DVMRP routes. Otherwise, no action is required.

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**E1T1_MODULE Messages**

The following are E1T1 module error messages.

Error Message
%E1T1_MODULE-3-BERTBUSY: Controller [chars] - BERT hardware in use, command refused.

Explanation The current task requires BERT hardware resources that are currently occupied with other tasks. The BERT chip could be in use by either sending V.54 loopup or loopdown code to the remote end or running a BERT test.

Recommended Action Determine if either of the tasks is in progress on this controller.

Error Message
%E1T1_MODULE-3-FDLLLOOPDOWN: Controller [chars] - FDL line loopdown code detected, deactivating line loopback.

Explanation The system has detected FDL line loopdown code on the unit, and it is deactivating the line loopback.

Recommended Action No action is required.

Error Message
%E1T1_MODULE-3-FDLLLOOPUP: Controller [chars] - FDL line loopup code detected, activating line loopback mode.

Explanation The system has detected FDL line loopup code on the unit, and it is activating the line loopback.

Recommended Action No action is required.
Error Message

%E1T1_MODULE-3-FDLLREQFAILED: Controller [chars] - Failed to put the remote end in line loopback mode via FDL.

**Explanation**  The T1 FDL line loopup code was sent to the remote end, but the remote end did not activate the line loopback.

**Recommended Action**  This error could be caused by the controller configuration or by a line problem. Ensure that both controllers are up.

Error Message

%E1T1_MODULE-3-FDLLREQOK: Controller [chars] - Remote end is put in line loopback mode via FDL.

**Explanation**  The T1 FDL line loopup code was sent to the remote end, and the remote end has activated the line loopback.

**Recommended Action**  No action is required.

Error Message

%E1T1_MODULE-3-FDLPLOOPDOWN: Controller [chars] - FDL payload loopdown code detected, deactivating payload loopback.

**Explanation**  The system has detected FDL payload loopdown code on the unit, and it is deactivating the payload loopback.

**Recommended Action**  No action is required.

Error Message

%E1T1_MODULE-3-FDLPLOOPUP: Controller [chars] - FDL payload loopup code detected, activating payload loopback mode.

**Explanation**  The system has detected FDL payload loopup code on the unit, and it is activating payload loopback.

**Recommended Action**  No action is required.

Error Message

%E1T1_MODULE-3-FDLPREQFAILED: Controller [chars] - Failed to put the remote end in payload loopback mode via FDL.

**Explanation**  The T1 FDL payload loopup code was sent to the remote end, but the remote end did not activate payload loopback. This error could be caused by a controller configuration or line problem.

**Recommended Action**  Ensure that both controllers are up.
Error Message

%S1T1_MODULE-3-FDLPREQOK: Controller [chars] - Remote end is put in payload loopback mode via FDL.

Explanation The T1 FDL payload loopup code was sent to the remote end from the unit, and the remote end has activated the payload loopback.

Recommended Action No action is required.

Error Message

%S1T1_MODULE-3-HWIDFAILED: Controller [dec]/[dec] does not have idb

Explanation The system did not have a HWIDB registered for the serial interface.

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

Error Message

%S1T1_MODULE-3-IBOCLOODOWN: Controller [chars] - IBOC loopdown code detected, deactivating line loopback.

Explanation The system has detected IBOC loopdown code on the unit, and it is deactivating the line loopback.

Recommended Action No action is required.

Error Message

%S1T1_MODULE-3-IBOCLOOPUP: Controller [chars] - IBOC loopup code detected, activating line loopback mode.

Explanation The system has detected IBOC loopup code on the unit, and is activating the line loopback.

Recommended Action No action is required.

Error Message

%S1T1_MODULE-3-IBOCREQFAILED: Controller [chars] - Failed to put the remote end in line loopback mode via IBOC.

Explanation The T1 IBOC loopup code was sent to the remote end, but the remote end did not activate the line loopback. The remote end may not have activated the payload loopback because of a controller configuration or line problem.

Recommended Action Ensure that both controllers are up.
Error Message
%E1T1_MODULE-3-IBOCREQOK: Controller [chars] - Remote end is put in line loopback mode via IBOC.

Explanation The T1 IBOC loopup code was sent to the remote end from the unit, and the remote end has activated the line loopback.

Recommended Action No action is required.

Error Message
%E1T1_MODULE-3-INITFAILURE: Slot [dec], Unit [dec] initialization failure - [chars]

Explanation The E1T1 driver detected an error while initializing.

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

Error Message
%E1T1_MODULE-3-LINEFLAP: Interface [chars] receiving excessive errored packets

Explanation The serial interface is receiving an excessive number of error packets. This problem is caused by a controller configuration mismatch.

Recommended Action Check the settings for line code, framing, time slots, and speed.

Error Message
%E1T1 MODULE-3-T1REQCANCELLED: Controller [chars] - T1 remote loopback has been cancelled.

Explanation T1 loopdown code has been sent to the remote end from the specified unit. The remote end is assumed to have received the loopdown code and deactivated the loopback mode. However, no test has been performed to ensure that the remote end has deactivated the loopback mode.

Recommended Action No action is required.

Error Message
%E1T1_MODULE-3-V54LOOPDOWN: Unit [chars] - V.54 loopdown code detected, deactivating V.54 payload loopback.

Explanation The system has detected V.54 loopdown code on the unit, and it is deactivating the V.54 payload loopback.

Recommended Action No action is required.
**Error Message**

%E1T1_MODULE-3-V54LOOPUP: Unit [chars] - V.54 loopup code detected, activating V.54 payload loopback mode.

**Explanation**  
The system has detected V.54 loopup code on the unit, and it is activating the V.54 payload loopback.

**Recommended Action**  
No action is required.

---

**Error Message**

%E1T1_MODULE-3-V54REQCANCELLED: Unit [chars] - Remote V.54 loopback has been cancelled.

**Explanation**  
V.54 loopdown code has been sent to the remote end from this unit. The remote end is assumed to have received the loopdown code and deactivated the loopback mode. However, no test was performed to ensure the remote end has deactivated loopback mode.

**Recommended Action**  
No action is required.

---

**Error Message**

%E1T1_MODULE-3-V54REQFAILED: Unit [chars] - Failed to put the remote end in V.54 payload loopback mode.

**Explanation**  
The V.54 loopup code was sent to the remote end, but the remote end did not activate loopback. This error could be caused by controller configuration mismatch or a line problem.

**Recommended Action**  
Check the time slots and speed setting for the channel group in question on both ends, and ensure that V.54 detection is enabled on the remote end.

---

**Error Message**

%E1T1_MODULE-3-V54REQOK: Unit [chars] - Remote end is put in V.54 payload loopback mode.

**Explanation**  
The V.54 loopup code was sent to the remote end from the unit, and the remote end has activated V.54 payload loopback.

**Recommended Action**  
No action is required.

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**EC Messages**

The following are Port Aggregation Protocol (PAgP) error messages.

**Error Message**

%EC-5-BUNDLE: Interface [chars] joined port-channel [chars]

**Explanation**  
The specified interface has joined the port channel bundle.

**Recommended Action**  
No action is required.
Error Message
%EC-5-CANNOT_BUNDLE1: Port-channel [chars] is admin-down, port [chars] will remain stand-alone.

Explanation The port channel is administratively down.

Recommended Action Reconfigure the port channel to form a bundle.

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

Explanation The specified port has different port attributes from those of the port channel or ports within the port channel.

Recommended Action To join this port to the bundle, change its port attributes to match the port attributes of the port channel.

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

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

Recommended Action Enable PAgP on the remote partner port.

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

Explanation The partner port has been configured with a GC that is different from the GCs on the other ports in the bundle.

Recommended Action For a port to join a bundle, the local GC and the partner GC should match the GC on the other ports in the bundle. Ensure that the partner GCs for all the ports in the group are same.

Error Message
%EC-5-L3PORTDOWN: Shutting down [chars] as it’s port-channel is admin-down

Explanation The administrative state of the Layer 3 port is ruled by the administrative state of its aggregation port. If the administrative state of the aggregation port is down, the administrative state of the Layer 3 port will be forced to go down.

Recommended Action Change the administrative state of the aggregation port to up.
**Error Message**

%EC-5-L3STAYDOWN: [chars] will remain down as it’s port-channel[chars] is admin-down

**Explanation**  The administrative state of the Layer 3 port is ruled by the administrative state of its aggregation port. If the administrative state of the aggregation port is down, the administrative state of the Layer 3 port will be forced to go down.

**Recommended Action**  Change the administrative state of the aggregation port to up.

---

**Error Message**

%EC-4-NOMEM: Not enough memory available for [chars]

**Explanation**  The PAgP Shim/EtherChannel could not obtain the amount of memory it needed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

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**Error Message**

%EC-5-NOPAGP: Invalid EC mode, PAgP not enabled

**Explanation**  The EtherChannel (EC) mode could not be set to the mode requested because the PAgP had not been included in the software image.

**Recommended Action**  Get an image that includes PAgP or set the EC mode to on.

---

**Error Message**

%EC-5-UNBUNDLE: Interface [chars] left the port-channel [chars]

**Explanation**  The interface has been disconnected from the bundle.

**Recommended Action**  No action is required.

---

**Error Message**

%EC-5-UNSUITABLE: [chars] will not join any port-channel, unsuitable attributes configured

**Explanation**  An attempt was made to configure Port-fast, VMPS, and Dest-SPAN for Etherchannel. Port-fast, VMPS, and Dest-SPAN cannot be configured for Etherchannel.

**Recommended Action**  Undo the attempted configuration.
EGP Messages

The following are Exterior Gateway Protocol (EGP) error messages.

Error Message
%EGP-3-NOPDB: No pdb for [IP_address]

Explanation An internal software error has occurred.

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

Error Message
%EGP-3-TOOBIG: Insufficient ([dec]) buffering for update message

Explanation An EGP update message was too large to fit into a single buffer.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

EHSA Messages

The following are Cisco 6400 Enhanced High System Availability (EHSA) error messages.

Error Message
%EHSA-3-CONFIG_SYNC: [chars]

Explanation An EHSA configuration synchronization error has occurred. The details of what action was attempted and what malfunctioned will be printed.

Recommended Action Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.

Error Message
%EHSA-3-EHSA_ALARMS: [chars]

Explanation An EHSA alarm assertion error has occurred. The details of what action was attempted and what malfunctioned will be printed.

Recommended Action Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.
Error Message
%EHSA-3-EHSABADST: [chars] [[dec]] [[dec]]

Explanation An EHSA internal error has occurred.

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

Error Message
%EHSA-3-EHSAINT: ’[chars]’ at level [dec]

Explanation An EHSA internal error has occurred.

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

Error Message
%EHSA-2-EHSALOAD: [chars]

Explanation The system attempted to boot from the network on an EHSA secondary unit.

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

Error Message
%EHSA-2-EHSASW: [chars]

Explanation The primary unit has crashed or is unresponsive. The secondary unit is taking over.

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

Error Message
%EHSA-3-FSM: [chars]

Explanation An EHSA FSM error has occurred. The details about what action was attempted and what malfunctioned will be printed.

Recommended Action Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.
Error Message
%EHSA-3-GENERAL: [chars]

**Explanation**  An EHSA error has occurred. The details about what action was attempted and what malfunctioned will be printed.

**Recommended Action**  Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.

Error Message
%EHSA-3-IPC: [chars] [chars]

**Explanation**  An IPC error has occurred. The details of what action was attempted and what malfunctioned will be printed.

**Recommended Action**  Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.

Error Message
%EHSA-3-IPCERR: [chars] [chars]

**Explanation**  IPC has failed for EHSA, and EHSA messages cannot be transmitted.

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

Error Message
%EHSA-3-KEEPTO: No keepalive seen in [[dec]] secs: Failover [chars]

**Explanation**  An EHSA keepalive failure has occurred.

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

Error Message
%EHSA-3-NOBUF: [chars]

**Explanation**  The IPC has run out of memory buffers.

**Recommended Action**  Reduce the number of applications currently running on the IPC. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%EHSA-3-PEER_MONITOR: [chars]

**Explanation**  An EHSA Peer Monitor error has occurred. The details about what action was attempted and what malfunctioned will be printed.

**Recommended Action**  Copy the error message exactly as it appears, contact your Cisco technical support representative, and provide the representative with the gathered information. Also provide the system configuration information along with any other relevant information.

**Error Message**

%EHSA-5-PEER_MONITOR_EVENT: [chars] ([chars][chars]([dec]))

**Explanation**  An EHSA Peer Monitor event has occurred and was reported. The report indicates the reason for a switchover.

**Recommended Action**  No action is required.

**Error Message**

%EHSA-3-STCHNG: [chars] [[dec]]

**Explanation**  An EHSA state change has been detected.

**Recommended Action**  Copy the error message exactly as it appears. Include the system configuration information along with any other relevant information. Contact your Cisco technical support representative, and provide the representative with the gathered information.

# ENSP Messages

The following are Enhanced Network Service Provider (ENSP) error messages.

**Error Message**

%ENSP-4-FMAIL_BAD_MESSAGE: FAXMAIL- Bad message received

**Explanation**  An unexpected message has been received.

**Recommended Action**  If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ENSP-2-FMAIL_INTERNAL_ERROR: Internal software error

Explanation An internal software error has occurred.

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

Error Message
%ENSP-2-FMAIL_NO_AUTH_STARTED: AAA authentication startup failed

Explanation AAA authentication startup has failed.

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

Error Message
%ENSP-4-FMAIL_NO_SMTP: FAXMAIL- Can not connect to the SMTP server

Explanation No connection could be made to any of the specified SMTP servers.

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

Error Message
%ENSP-4-FMAIL_NO_SMTP_SEND: FAXMAIL- Could not send data to the SMTP server

Explanation A connection was made to the SMTP server, but data cannot be sent.

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

Error Message
%ENSP-2-INTERNAL_ERROR: FAX- Internal software error

Explanation An internal software error has occurred.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ENSP-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation The requested operation could not be accomplished because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%ENSP-4-SMTP_NOT_CONNECTED: SMTP- failed [chars], [dec]

Explanation A connection attempt to a remote mail server has failed. This is unexpected behavior.

Recommended Action No action is required.

Error Message
%ENSP-6-SMTP_OPEN: SMTP- opening [chars], [dec]

Explanation An attempt to connect to a remote mail server has failed. This is unexpected behavior.

Recommended Action No action is required.

ENT_API Messages

The following are Entity MIB Application Programming Interface error messages.

Error Message
%ENT_API-4-NOALIAS: [chars] entity not found when adding an alias with physical index = [int] and logical index = [int] to the Entity MIB

Explanation An attempt to add an alias entry to the Entity MIB has failed. The logical or physical entity with the specified index does not exist.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Using your NMS tool, also provide the content of the Entity MIB table.

Error Message
%ENT_API-3-NOCREAT: EntityApiProcess not created - Entity MIB will not be initialised

Explanation An attempt to start the routine failed when the entity subsystem was initialized. The Entity MIB will not be populated. The Entity MIB API process was not created, possibly because of a lack of memory.

Recommended Action To use the Entity MIB API, reconfigure the system so that less memory is used by other features, or add more memory to the system. Reload the system after reconfiguring it.
**Error Message**

%ENT_API-4-NOENT: Trying to add or delete an unknown entity to the Entity MIB

**Explanation**  An attempt to add or delete an unknown entity to the Entity MIB was made. The request could not be processed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Using your NMS tool, also provide the content of the Entity MIB table.

**Error Message**

%ENT_API-4-NOLPMAP: [chars] entity not found when adding an LPMapping entry with logical index = [int] and physical index = [int] to the Entity MIB

**Explanation**  An attempt to add an LPMapping entry to the Entity MIB was made. Because a logical or physical entity having the specified index does not exist, the LPMapping entry creation failed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative and provide the representative with the gathered information. Using your NMS tool, also provide the content of the Entity MIB table.

**Error Message**

%ENT_API-4-NOPARENT: Parent physical entity [int] did not exist when trying to add child physical entity [int].

**Explanation**  An attempt to add a physical entity has failed because its parent physical entity does not exist in the entPhysicalTable of the Entity MIB.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative and provide the representative with the gathered information. Using your NMS tool, also provide the content of the Entity MIB table.

**Error Message**

%ENT_API-4-NOPORT: Physical entity does not have a Port PhysicalClass when adding an alias with physical index = [int] and logical index = [int] to the Entity MIB

**Explanation**  An attempt to add an alias entry to the Entity MIB was made. The physical entity having the specified index does not have an entPhysicalClass of 10 (Port class), and so the alias entry creation failed. Refer to the RFC2037 document for the definition of the PhysicalClass textual-convention and the aliasMappingEntry object.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Using your NMS tool, also provide the content of the Entity MIB table.
ENVM Messages

The following are environmental monitor error messages.

Error Message
%ENVM-3-BLOWER: [chars] may have failed

Explanation One of the cooling fans on the router may be close to failure.

Recommended Action Replace the fan as soon as possible, or the system may either shut itself down or operate improperly.

Error Message
%ENVM-3-CPUCARD: Unknown CPU type [dec]

Explanation A CPU card in the system was not recognized by the software.

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

Error Message
%ENVM-2-ENVCRIT: [chars] measured at [chars]

Explanation One of the measured environmental test points has exceeded an extreme threshold.

Recommended Action Correct the specified condition, or the system may shut itself down as a preventive measure. This condition could cause the system to operate improperly. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%ENVM-4-ENVWARN: [chars] measured at [chars]

Explanation One of the measured environmental test points has exceeded the warning threshold.

Recommended Action Closely monitor the condition and correct if possible. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%ENVM-3-LASTENV: [chars]

**Explanation**  The nonvolatile EEPROM storage of environmental statistics has failed. This error may be caused by an EEPROM (hardware) failure.

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

Error Message

%ENVM-3-NOACK: Access to [chars] failed

**Explanation**  One of the temperature sensors was not ready for the initiation of environmental temperature monitoring. The software is attempting to restart the sensor.

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

Error Message

%ENVM-3-NOFORK: Could not start environment polling process

**Explanation**  Because the software could not spawn the environmental monitoring process, possibly because of low memory, no monitoring will be performed.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%ENVM-6-PSCHANGE: [chars] changed from [chars] to [chars]

**Explanation**  A new type of power supply in the system has been detected. This message can be expected when hot-swappable power supplies are swapped. This is an informational message only.

**Recommended Action**  No action is required.

Error Message

%ENVM-6-PSLEV: [chars] state changed from [chars] to [chars]

**Explanation**  One of the power supply test points has undergone a state change.

**Recommended Action**  Closely monitor the condition and correct if possible. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ENVM-0-SHUT: Environmental Monitor initiated shutdown

Explanation  The environmental monitor has initiated a system shutdown.

Recommended Action Look at previous environmental messages to determine the cause of the shutdown and correct if possible. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

ENV_MON Messages

The following are Cisco 12000 platform environmental monitor error messages.

Error Message
%ENV_MON-2-FAN: Fan array has reached [chars] level.

Explanation  There might be a hardware problem with the fan array. If the error condition continues for two minutes, the router shuts down automatically to prevent damage to router components.

Recommended Action  If the system shuts down, replace the fan tray. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%ENV_MON-2-FANOK: Fan array has recovered.

Explanation  One or more of the variable speed fans has recovered from a prior failure.

Recommended Action  No action is required.

Error Message
%ENV_MON-1-SHUTDOWN: Environmental Monitor initiated shutdown

Explanation  The system has reached a shutdown temperature level, and the router is being shut down to avoid any damage.

Recommended Action  Attempt to resolve the temperature problem. If the problem cannot be resolved, contact your Cisco technical support representative for assistance.

Error Message
%ENV_MON-2-SUPPLY: [chars] Power Supply is Non-Operational

Explanation  A power supply is not working or has not been turned on.

Recommended Action  Check that the power supply is on; if it is on and still does not operate, contact your Cisco technical support representative for assistance.
Error Message
%ENV_MON-2-TEMP: [chars] temperature has reached [chars] level at [dec](C)

Explanation  The temperature sensor specified has reached a warning or critical level and has reached or exceeded a condition that is outside its acceptable range.

Recommended Action  Attempt to resolve the temperature problem. If the problem cannot be resolved, contact your Cisco technical support representative for assistance.

Error Message
%ENV_MON-3-UNKNOWN_TEMP_SENSOR: sensor [dec] in slot [dec] value = [dec].[dec]

Explanation  A temperature measurement has been received from an unknown sensor. A software error may have occurred, or the MBus data may have been corrupted.

Recommended Action  No action is required. However, if this message recurs, indicating a continued condition, contact your Cisco technical support representative.

Error Message
%ENV_MON-3-UNKNOWN_VOLTAGE_SUPPLY: supply [dec] in slot [dec] value = [dec]

Explanation  A voltage measurement was received from an unknown supply. A software error may have occurred, or the MBus data may have been corrupted.

Recommended Action  No action is required. However, if this message recurs, indicating a continued condition, contact your Cisco technical support representative.

Error Message
%ENV_MON-2-VOLTAGE: [chars] volts has reached [chars] level at [chars](V)

Explanation  The voltage supply specified has reached a critical level and is now out of specification.

Recommended Action  Verify the failure and contact your Cisco technical support representative for the repair or replacement of the equipment.

EPAD Messages

The following are encryption port adapter driver (EPAD) error messages.

Error Message
%EPAD-1-ERROR: [chars]

Explanation  A software error has occurred. The message will include more information that can be used to identify the problem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%EPAD-1-INITFAIL: [chars]

Explanation  The encryption port adapter has failed to initialize.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%EPAD-1-WARNING: [chars]

Explanation  A nonfatal warning condition has occurred. The message will include more information about the nature of the problem.

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

ESWITCH Messages

The following are Ethernet switch port adapter error messages.

Error Message
%ESWITCH-1-DEC21140: ESWITCH([dec]) Failed to initialize DEC21140, shutting down bay

Explanation  A software or hardware error has occurred.

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

Error Message
%ESWITCH-1-EALE: ESWITCH([dec]) Failed to initialize EALE

Explanation  A hardware error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ESWITCH-1-MULTICASTADD: ESWITCH([dec]), Cannot add multicast [enet]

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-5-NOBRIDGEGROUP: ESWITCH([dec]), Bridge-group must be configured

Explanation  A configuration error has occurred.

Recommended Action  Configure a bridge group on the interface.

Error Message
%ESWITCH-5-NOMOREVLANS: ESWITCH([dec]), Only [dec] Bridge-Groups(vLANS) are supported

Explanation  A configuration error has occurred.

Recommended Action  Configure only the allowed number of bridge groups on the Ethernet switch port adapter.

Error Message
%ESWITCH-1-NOTPLX: ESWITCH([dec]) Device is not PLX 9060SD, Device reported [hex]

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-1-PCIINIT: ESWITCH([dec]) Failed to initialize PCI devices, shutting down bay

Explanation  A hardware error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ESWITCH-1-TSWITCH: ESWITCH([dec]) Failed to initialize TSWITCH

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-1-TSWITCHEALE: ESWITCH([dec]) Failed to initialize TSWITCH/EALE, shutting down bay

Explanation  A software or hardware error has occurred.

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

Error Message
%ESWITCH-1-UNICASTADD: ESWITCH([dec]), Cannot add unicast [enet]

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-1-UNICASTDEL: ESWITCH([dec]), Cannot remove unicast [enet]

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-1-UNICASTDELP: ESWITCH([dec]), Cannot flush unicasts from port [dec]

Explanation  A hardware error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ESWITCH-1-UNICASTDELPV: ESWITCH([dec]), Cannot flush unicast from vLAN [dec] on uplink

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-1-UNICASTDELV: ESWITCH([dec]), Cannot flush unicastr from vLAN [dec]

Explanation  A hardware error has occurred.

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

Error Message
%ESWITCH-1-UNICASTLOCK: ESWITCH([dec]), Cannot lock unicast [enet]

Explanation  A hardware error has occurred.

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

ETHERNET Messages

The following are Ethernet for the C1000 series error messages.

Error Message
%ETHERNET-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation  Insufficient memory exists to allocate the necessary memory pools.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ETHERNET-1-TXERR: [chars]: Fatal transmit error. Restarting...

Explanation A fatal transmit error has occurred on the Ethernet line, causing the line to be restarted. This condition may be caused by a bad configuration of the media type or a hardware problem with the cable, the transceiver, the other end of the cable, or the interface of the router itself. Extremely high traffic load can occasionally cause the router to generate this message.

Recommended Action Verify the configuration of the media type. If the media type is correctly set, replace the cable or the transceiver. If possible, try another port in the device to which the Ethernet is connected. If other measures fail, replace the hardware.

Error Message
%ETHERNET-4-UNSUPINTFC: Interface Ethernet[dec] not supported by [chars] image

Explanation The specific Ethernet interface is not supported by the operating system that is currently running.

Recommended Action If the hardware configuration is supported by a newer version of the operating system, you must upgrade the software to support this interface.

EVENT Messages

The following are Event MIB error messages.

Error Message
%EVENT-3-INSERT_FAILURE: Failed to insert [chars]

Explanation The event process has failed to insert the newly created row in its linked list data structure.

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

Error Message
%EVENT-3-NULL_ELEMENT: Null pointer in the watched queue for [chars] test

Explanation The process has been woken up with a NULL element.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%EVENT-3-NULL_STRUCT: Null pointer to the [chars] structure

Explanation  The process has been woken up with an element that had a null pointer to the test structure.

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

EXPRESSION Messages

The following are Expression MIB error messages.

Error Message
%EXPRESSION-3-BADTYPE: Found data type [hex] in expression (should be [chars] type)

Explanation  While an expression was being evaluated, an operand was found with an unexpected data type. The evaluation of this expression has been aborted.

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

Error Message
%EXPRESSION-3-FAILASSERT: Assertion failed: [chars]

Explanation  An operation within the Expression MIB subsystem has encountered a data value that is out of range or of an unexpected value, indicating a logic error within the subsystem.

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

The following are Fabric Interface ASIC (FIA) error messages.

Error Message

%FABRIC-3-CRC: Switch card [int]

Explanation  An excessive number of CRC16 errors have been detected from one of the fabric switch cards. A hardware problem, either on the fabric card that is displayed in the error message or in the line card or RP that is reporting the error, may have occurred.

Recommended Action  Enter the show controllers fia command on the RP and the execute-on all show controllers fia commands to determine if the problem is being seen by all the cards, or only one. If only one card is involved, replace that line card or RP. If all the cards are involved, replace the switch card.

Error Message

%FABRIC-3-FIFOERR: [chars] FIFO Error was detected. [chars], Data = [hex].

Explanation  A FIFO error has been detected by the FIA hardware.

Recommended Action  The device will be reset. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%FABRIC-3-HALT: [chars]

Explanation  The fabric hardware has not been able to correct itself.

Recommended Action  Try reseating the boards. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%FABRIC-3-INIT: Bad Configuration master_sca = [hex] csc_installed = [hex].

Explanation  The configuration of clock scheduler cards and switch cards is invalid.

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

%FABRIC-3-LOS: LOS for slot [int] was [chars].

Explanation  A loss of synchronization between the line card and the switch card was detected and cleared. The data shows the fabric card or cards on which the errors were detected.

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

Error Message

%FABRIC-3-PARITYERR: [chars] parity error was detected. [chars] Data = [hex].

Explanation  A parity error has been detected by the FIA hardware.

Recommended Action  The device will be reset. If the problem persists, the card will be automatically reset. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%FABRIC-3-REQUESTERR: Request error was detected. Type = [dec]

Explanation  A request error was detected by the FIA hardware.

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

Error Message

%FABRIC-3-UNEXPECTED: Unexpected interrupt was detected from the [chars] FIA.

Explanation  An unexpected interrupt was detected by the FIA hardware.

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

The following are Voice over IP (VoIP) fallback error messages.

**Error Message**
%FALLBACK-4-CACHE_OVERFLOW: Cache has overflowed.

**Explanation** The fallback cache has overflowed and dumped one-quarter of its entries.

**Recommended Action** Increase the fallback cache size.

**Error Message**
%FALLBACK-3-INTERNAL_ERROR: [chars]: Internal error.

**Explanation** An internal error has occurred.

**Recommended Action** No action is required.

**Error Message**
%FALLBACK-3-PROBE_FAILURE: A probe error to [IP_address] occurred - [chars]

**Explanation** A probe error has occurred. Possibly, the responder on the remote router is not enabled, or no machine is on the specified IP.

**Recommended Action** Check the destination router.

**Error Message**
%FALLBACK-5-TEST_PROBE_ALREADY_RUNNING: A test probe is already running.

**Explanation** Only one test probe may run at a time.

**Recommended Action** Wait until the first test probe is finished.

FAN Messages

The following are fan error messages.

**Error Message**
%FAN-3-FAN_FAILED: Fan [dec] had a rotation error reported.

**Explanation** The fan is not rotating properly.

**Recommended Action** Replace the fan if it is not rotating.
Error Message
%FAN-3-FAN_OK: Fan [dec] had earlier reported a rotation error. It is ok now

Explanation  The fan had reported a rotation error but is now functioning properly.

Recommended Action  No action is required.

FASTBLK Messages

The following are Fast Block error messages.

Error Message
%FASTBLK-4-CREATE_ERR: Fastblk pool creation error: [chars]

Explanation  An unexpected error occurred while a Fast Block memory pool creation operation was being performed.

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

Error Message
%FASTBLK-4-DEALLOC_ERR: Fastblk deallocation error: [chars]

Explanation  An unexpected error occurred while a Fast Block memory deallocation operation was being performed.

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

Error Message
%FASTBLK-4-GROW_ERR: Fastblk pool growth error: [chars]

Explanation  An unexpected error occurred while a Fast Block memory pool growth operation was being performed.

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

%FASTBLK-4-QUEUE_ERR: Fastblk queue error: [chars]

**Explanation**  An unexpected error occurred while a Fast Block memory queue operation was being performed.

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

Error Message

%FASTBLK-4-SHRINK_ERR: Fastblk pool shrink error: [chars]

**Explanation**  An unexpected error occurred while a Fast Block memory pool shrink operation was being performed.

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

Error Message

%FASTBLK-4-WARNING: Unexpected condition: [chars]

**Explanation**  An unexpected condition was detected while a Fast Block memory operation was being performed.

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

**FB Messages**

The following are Cisco AS5800 feature board error messages.

Error Message

%FB-3-AGENTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

**Explanation**  The software has detected an invalid state change for the MBus agent of the specified slot. This is a software error.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FB-2-BADPORT: Out of range PCI port [dec]

Explaination The software has specified an out-of-range port on the feature board. This is a software error.

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

Error Message
%FB-3-EVENT: Unknown event [dec] for slot [dec]

Explaination The software has generated an unknown event for the specified slot. This is a software error.

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

Error Message
%FB-3-INVALIDSLOT: Invalid [chars] feature board present in slot [dec]

Explaination A feature board has been inserted in a restricted slot. This is not permitted.

Recommended Action Reinsert the feature board in the appropriate slot.

Error Message
%FB-6-OIR: Card in slot [dec] [chars]

Explaination A dial shelf feature card was inserted or removed from the specified slot.

Recommended Action No action is required.

Error Message
%FB-3-SLOTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

Explaination The software has detected an invalid state change for the specified slot. This is a software error.

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

The following are feature board core dump error messages.

Error Message
%FB_COREDUMP-3-NOMEMORY: No Memory or buffer for [chars] to be send to [dec]

Explanation There was insufficient memory for the router shelf to send any command or acknowledgment to the feature boards.

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

FBINFO Messages

The following are Cisco AS5800 feature board crash information subsystem error messages.

Error Message
%FBINFO-3-CRASH: Feature board in slot [int] crashed

Explanation The feature board in the slot indicated has crashed and sent a “CRASH_START” message to the DSI. The DSI is now waiting for the rest of the crash information (stack trace, context, version, etc.) from the line card to be sent via the MBus. The crash information should be sent a few milliseconds after receiving the “CRASH_START” message. The DSI software will be notified of the line card crash after all the crash information has been sent to the DSI. In the unlikely event that the subsequent crash information messages are not received by the DSI within a reasonable time limit (perhaps 10 seconds), the DSI will print a “TIMEOUT” error message indicating that the DSI did not receive the crash information messages and will notify the rest of the DSI software that the feature board has crashed.

Recommended Action Report this defect with as much information about the feature board in question, including the output of the show context summary command, the show context slot n command, and the show tech-support n command, in addition to the usual information gathered by entering the show tech-support command from the RS.

Error Message
%FBINFO-3-INVDEV: Invalid feature board number in MBUS callback (LC=[int])

Explanation The feature board crash information subsystem on the DSI was called from the MBus subsystem with an invalid DEVICE identifier. The DEVICE in this case is supposed to be the slot number of the line card, but it was out of range. This indicates a software defect in the system.

Recommended Action Report this defect with as much information about the MBus subsystem as possible. There is no adverse effect to the DSI. The DSI will ignore the bad callback and continue. If the problem persists, reboot the router. It is unlikely but possible that the problem is due to bad MBus hardware somewhere in the system, most likely the DSI MBus module.
Error Message

%FBINFO-3-INVSTATE: Feature board crash server in bad state (LC=[int], state=[int])

Explanation  The feature board crash information subsystem for the feature board indicates that it is in an unknown state. This is due to a software defect in that subsystem.

Recommended Action  Report this defect with as much information about the MBus subsystem and the feature board crash information subsystem possible.

Error Message

%FBINFO-3-NOPROCESS: Failed creating feature board complete process

Explanation  When creating the crash complete process for the crash information subsystem, the create_process call failed. The create_process should not fail. This error is probably due to a software defect or hardware failure. This failure should happen only during initialization.

Recommended Action  Rebooting the system should fix this error. If the condition persists on subsequent reloads of the system, a bug report should be filed and the system should be reloaded with a different image.

Error Message

%FBINFO-3-TIMEOUT: Timeout waiting for crash info from slot [int]

Explanation  The crash information complete timer expired. When a feature board crashes, it sends information to the DSI for debugging and analysis. The “START OF CRASH” message is received, a timer is set for approximately 10 seconds. The line card has 10 seconds to send all the crash information to the DSI. This process is not the same as a crash dump; this process contains a small amount of information that usually includes context, stack trace, etc. The information will be less than 8k bytes long. If an “END OF CRASH” information message is not received before the timer expires, the crash information record, which contains partial information is closed, this message is displayed, and the rest of the system is notified that the feature board has crashed, at which point it is probably reloaded. If the feature board sends more crash information after the timer goes off and before the system resets, the feature board additional “UNXMSG” error message might be displayed.

Recommended Action  No action is required specifically because this message was displayed. However, since the feature board was crashing, there might be other defects to report. If this message is seen and the feature board has not crashed, report this defect with the output of the usual commands including the show tech-support command on the RS and on the feature board that did not crash but was referenced in this error message.

Error Message

%FBINFO-4-TRUNC: Crash record ([int]=[chars]) truncated (expected=[int], actual=[int])

Explanation  A feature board crashed and was sending crash information to the RS. The RS received a “CRASH RECORD START” message that indicated how many bytes of data would be received. Before the indicated number of bytes had been received, the RS received another “CRASH RECORD START” message indicating the start of another record. The first record was marked as truncated, and
the next record was received, but the truncation of the first message is noted in the later message. This error might be a symptom of another underlying problem in addition to the line card crash that resulted in the sending of the first “CRASH RECORD START” message.

**Recommended Action** Report this defect with as much information about the MBus subsystem and the line card crash information subsystem as possible.

**Error Message**

%FBINFO-4-UNXMSG: Unexpected crash info msg type ([chars]) in state [chars] (LC=[int])

**Explanation** The feature board crash information subsystem has received an unexpected message for its state. The state and message type are given in the error message. This message does not have any adverse effect on the DSI since the DSI ignores the message and recovers from this occurrence. This message could occur if a feature board is failing. The source of the crash on the line card is more significant. If this message occurs and a line card has not crashed, it is caused by a stray or errant MBus message that should be researched. This problem could also be the result of a dropped MBus message.

**Recommended Action** Find the source of the crash on the feature board if one was crashing when the message occurred. If no feature board was crashing, report this defect with as much information about the MBus subsystem and the feature board crash information subsystem as possible. If this message persists, rebooting the router might remove this message.

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**FDDI Messages**

The following are Fiber Distributed Data Interface (FDDI) error messages.

**Error Message**

%FDDI-3-BADSLOT: Unit [dec], Slot [dec] does not exist.

**Explanation** The main processor has detected an invalid slot location for one of the network interface cards. This should never happen.

**Recommended Action** Contact your Cisco technical support representative to obtain a replacement card.

**Error Message**

%FDDI-3-BADUNIT: Bad unit number [dec]

**Explanation** The system cannot find the chipset registers where it expects them to be. This is most likely a hardware error.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
**Error Message**

%FDDI-3-FDDIFAIL: Interface [chars], [chars], [chars] = [hex]

**Explanation** The FDDI interface has failed.

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

**Error Message**

%FDDI-3-FDDIFAIL2: Interface [chars], [chars], [chars] = [hex], [chars] = [hex]

**Explanation** The FDDI interface has failed. This message appears as the second line of the preceding “FDDIFAIL” message and contains debug information.

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

**Error Message**

%FDDI-3-NOCAM: Unit [dec], No CAM exists for this interface.

**Explanation** A hardware or software error has occurred.

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

**Error Message**

%FDDI-1-NOMEMORY: Unit [dec], no memory for [chars]

**Explanation** The FDDI Management Information Base/Station Management (MIB/SMT) processing functions could not initialize because of insufficient memory.

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

The following are Fast Ethernet (FE) Combination Port Module (CPM) device driver error messages.

Error Message
%FECPM-3-BSCHUNT: BSC HUNT cmd for int [dec]/[dec] failed

Explanation An internal error has occurred.

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

Error Message
%FECPM-1-DISCOVER: NM slot [dec]: only [dec] PCI dev found

Explanation Some of the interface controller devices on the FECPM NM did not initialize properly.

Recommended Action Power down, reinsert the port module, and reboot. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%FECPM-3-DSCC4: DSCC4 chip init slot [dec] failed

Explanation An internal error has occurred.

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

Error Message
%FECPM-1-INITFAIL: NM slot [dec]: PCI dev [dec] init failed

Explanation A PCI device on the FECPM NM failed to successfully initialize the hardware.

Recommended Action Power down, reinsert the port module, and reboot. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FECPM-3-INVALID_CLOCKRATE: Unsupported clock rate req on int [dec]/[dec] - index [dec]

Explanation  An internal software error has occurred.

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

Error Message
%FECPM-3-INVALID_SCC: Config req for invalid SCC via int [dec]/[dec]

Explanation  An internal software error has occurred.

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

Error Message
%FECPM-3-NOMEMORY: No memory for [chars] of unit [dec]

Explanation  The router does not have enough memory to function properly.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%FECPM-3-OWNERR: Buffer ownership error on int [dec]/[dec], pak=[hex]

Explanation  An internal software error has occurred.

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

Error Message
%FECPM-2-SCCFAIL: Init of SCC[dec] for int [dec]/[dec] failed to do [chars]

Explanation  The software has failed to initialize or restart an SCC of a serial interface on the FECPM.

Recommended Action  Clear the serial interface. If this error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FECPM-3-SCCRESET: SCC reset for int [dec]/[dec] at [chars] failed

Explanation  An internal error has occurred.

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

Error Message
%FECPM-3-SPI_OP_FAILED: NM base addr - [hex], WIC slot - [dec], SPI op failed

Explanation  An internal software error has occurred.

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

Error Message
%FECPM-5-TOOBIG: On int [dec]/[dec], tx pak is [dec] bytes

Explanation  A packet greater than the assigned MTU of this serial interface was placed in the transmission queue.

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

Error Message
%FECPM-5-TOOSMALL: On int [dec]/[dec], tx pak size is [dec] bytes

Explanation  A small packet (a packet of a size less than 2 bytes) was placed in the transmission queue. The interface cannot transmit packets that are 2 bytes or less in size.

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

Error Message
%FECPM-3-TXCOMPNOTIFY: On int [dec]/[dec], tx_comp_notify vector is not set

Explanation  An internal software error has occurred.

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

Error Message
%FECPM-3-UFHANDLE: UnderFlow handling on int [dec]/[dec] failed.

Explanation  An internal error has occurred.

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

Error Message
%FECPM-5-UNDERFLOW: Transmit underflow on int [dec]/[dec]

Explanation  While transmitting a frame, the local buffer of the serial controller chip received insufficient data because data could not be transferred to the chip fast enough to keep pace with its output rate. Normally, this problem is temporary, depending on transient peak loads within the system.

Recommended Action  The system should recover. No action is required.

Error Message
%FECPM-1-UNKNOWN_WIC: NM slot [dec], wic card has an unknown id [hex]

Explanation  The software does not recognize the type of WIC card plugged into the port module.

Recommended Action  Check the part number on the WIC card and verify that it is supported in the IOS software release that is operational on the router. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

FIB Messages

The following are IP Cisco Express Forwarding (CEF) radix tree error messages.

Error Message
%FIB-2-DFIBSWITCH: Error trying to turn on Distributed CEF without CEF on

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FIB-3-FIBBADXDRIPC: Invalid IPC/XDR. IPC len/XDRs len [dec]/[dec]. IPC at [hex]

Explanation  An internal software error has occurred.

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

Error Message
%FIB-3-FIBBADXDRSLOT: Invalid XDR slot. Type/len/slot [dec]/[dec]/[dec]. XDR at [hex]

Explanation  An internal software error has occurred.

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

Error Message
%FIB-3-FIBBADXDRTYPE: Invalid XDR type. Type [dec]. XDR at [hex]

Explanation  An internal software error has occurred.

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

Error Message
%FIB-4-FIBCBLK: Missing cef table for tableid [dec] during [chars] event

Explanation  An internal software error has occurred.

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

Error Message

Error Message
%FIB-3-FIBDISABLE: Fatal error, slot [#]: no memory

Explanation  CEF has been disabled on the card installed in the slot specified in the error message. If “no memory” appears in the error message, there was not enough memory on the card to download the CEF tables from the main board. Since Cisco 12000 series Internet Routers support distributed CEF switching only, this error also disables the card.
If “No window message, LC to RP IPC is non-operational” appears in the error message, CEF has been disabled on the card installed in the slot specified in the error message because the main board did not receive a keepalive from this card. Since Cisco 12000 series Internet Routers support distributed CEF switching only, this error also disables the card.

**Recommended Action**  If “no memory” appears in the error message, add memory to the card specified in the error message and reenable distributed CEF. If this message recurs after a memory upgrade, copy the error message text exactly as it appears on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

If “No window message, LC to RP IPC is non-operational” appears in the error message, try to restart CEF on the specified card by entering the `clear cef linecard slot-number` command in EXEC mode or entering a `microcode reload` global configuration command for the Cisco 7500 series. (Entering the `microcode reload` command will cause a traffic interruption of approximately two minutes.) Entering these commands should temporarily restore distributed CEF on the card. If the problem persists, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If this message recurs after a memory upgrade, copy the error message text exactly as it appears on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%FIB-2-FIBDOWN: CEF has been disabled due to a low memory condition.
It can be re-enabled by configuring "ip cef [distributed]"

**Explanation**  CEF was disabled due to a low memory condition.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade the RP so that it has more DRAM.

**Error Message**

%FIB-4-FIBEVENT: Invalid event. Type [dec], event [dec]

**Explanation**  An internal software error has occurred.

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

**Error Message**

%FIB-4-FIBIDB: Missing cef idb for [chars] during [chars]

**Explanation**  An internal software error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FIB-4-FIBIDBINDEX: Missing CEF idb for interface index [dec] during [chars]

Explanation   An internal software error has occurred.

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

Error Message
%FIB-4-FIBINVACL: Invalid ACL field: [chars] is [dec]

Explanation   An internal software error has occurred.

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

Error Message
%FIB-3-FIBLC_OOSEQ: Slot [dec] disabled - Out of Sequence. Expected [dec], received [dec]

Explanation   An internal software error has occurred. CEF switching is disabled on this slot.

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

Error Message
%FIB-4-FIBLCQUEUESTUCK: LC->RP queue limit exceeded - deferring [chars]

Explanation   The IPC queue from the LC to the RP is full. This may be due to a failure of the IPC mechanism. Message sending has been deferred until the queue empties.

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

Error Message
%FIB-3-FIBLOADBALINITFAIL: Error initializing [chars] load sharing algorithm ([chars]). Default load sharing algorithm restored.

Explanation   Initialization of the FIB load sharing algorithm failed because of the condition stated. The default algorithm for this platform and image has been restored.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FIB-4-FIBMSG: Invalid message received. Type [dec], event/sub-type [dec], length [dec]

Explanation An internal software error has occurred.

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

Error Message
%FIB-2-FIB_OVERLENGTH_XDR: Overlength CEF XDR message - len [dec] > [dec]

Explanation An internal software error has occurred that prevented the sending of a CEF XDR message.

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

Error Message
%FIB-3-FIBPENDINGLIST: Error queueing interface [chars] to CEF pending event list.

Explanation An error occurred while queuing an interface to the CEF pending event list.

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

Error Message
%FIB-4-FIBREMOVE: Fibtype deletion exception: [chars]

Explanation An internal software error has occurred.

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

Error Message
%FIB-3-FIFSBINIT: Error initializing [chars] subblock data structure. [chars]

Explanation Initialization of the specified CEF subblock data structure could not be accomplished.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FIB-3-FIBSEQ: Out of sequence. State [dec] Rcvd [dec]

Explanation  An internal software error has occurred. CEF switching is disabled on this slot.

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

Error Message
%FIB-4-FIBSPECIALPREFIX: Invalid Special Prefix Type. Type [dec]

Explanation  An internal software error has occurred.

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

Error Message
%FIB-3-FIBTABLEINIT: CEF table creation failure - [chars], tableid [dec]

Explanation  An internal software error has occurred that prevented the creation of a new CEF table.

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

Error Message
%FIB-4-FIBXDRINV: Invalid format. [chars]

Explanation  An internal software error has occurred.

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

Error Message
%FIB-3-FIBXDRLEN: Invalid XDR length. Type [dec][chars]. XDR/buffer len [dec]/[dec]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FIB-2-IDBQINIT: Error initializing CEF IDB queue

Explanation  The CEF IDB queue could not be initialized because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%FIB-3-INVALIDSTATE: Slot [dec] in invalid transition from [chars] to [chars]

Explanation  An internal software error has occurred. The line card is in incorrect state.

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

Error Message
%FIB-2-LINECARDINIT: Error initializing CEF Linecard queue

Explanation  The CEF line card queue could not be initialized because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%FIB-3-MAXPATHS_EXCEEDED: Max paths is [dec], [dec] attempted. Address was [IP_address], mask was [IP_address]

Explanation  An internal software error has occurred. There was an attempt to set up more than the supported number of routing paths. CEF switching has been disabled on this slot.

Recommended Action  Investigate why the number of routing paths was exceeded.

Error Message
%FIB-3-NDB: Prefix [IP_address][IP_netmask] received with zero total traffic count

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FIB-3-NOMEM: Malloc Failure, disabling [chars]

Explanation  CEF has been disabled on the card located in the specified slot, because there was not enough memory on the card to download the CEF tables from the main board. Since Cisco 12000 series Internet Routers support distributed CEF switching only, this error also disables the card.

Recommended Action  Add additional memory to the card specified in the error message and reenable distributed CEF. If this message recurs after a memory upgrade, copy the error message text exactly as it appears on the console or in the system log, enter the **show tech-support** command, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%FIB-5-NOPUNTINTF: CEF resuming switching packets to [chars]

Explanation  CEF had been punting packets switched to this interface to the next slower switching path. The interface configuration has changed, and CEF will resume switching to this interface.

Recommended Action  No action is required.

Error Message
%FIB-3-NORPXDRQELEMS: Exhausted XDR queuing elements while preparing message for slot [dec]

Explanation  While the RP was preparing to send a message to the line cards in the system, the RP exhausted the supply of queuing elements that were needed to enqueue the messages for transmission.

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

Error Message
%FIB-3-POLICY_NULL_ROUTEMAP: Empty or missing policy routemap found on [chars]

Explanation  The expected policy route map was empty.

Recommended Action  Investigate why an empty route map was associated with this slot.

Error Message
%FIB-4-PUNTINTF: CEF punting packets switched to [chars] to next slower path

Explanation  The system could not use CEF to switch some or all packets out of the interface specified in the error message. This error is caused by the configuration of the interface. The affected packets were switched to the specified interface by using the next-slowest switching path.

Recommended Action  If possible, configure CEF-supported and non-CEF-supported features on different subinterfaces. Some types of encapsulation on ATM interfaces are not supported by CEF.
Error Message

%FIB-2-RADIXINIT: Error initializing IP CEF radix tree

Explanation  The radix tree could not be initialized due to a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%FIB-4-RADIXINSERT: Error trying to insert prefix entry for [IP_address]/[dec]

Explanation  An internal software error has occurred.

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

Error Message

%FIB-4-RATE: [chars] rate limit status [dec]

Explanation  An internal software error has occurred.

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

Error Message

%FIB-3-THREAD: Thread processing error: [chars]

Explanation  An internal software error has occurred.

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

Error Message

%FIB-2-XDRINIT: Error initializing CEF xdr chunks

Explanation  The CEF XDR chunks could not be initialized because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
FILESYS Messages

The following are file system error messages.

Error Message

%FILESYS-5-DEV: POMCIA flash card [chars] [chars]

Explanation The system status of a file has changed. Follow any instructions provided with the message.

Recommended Action No action is required.
FLASH Messages

Error Message

%FILESYS-3-FLASH: [chars] [chars] error [dec]

Explanation  A file system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

FLASH Messages

The following are Flash nonvolatile memory error messages.

Error Message


Explanation  An error was detected while reading the CIS of the device. Possible causes are the following:

- The card was removed while the router was trying to read the card.
- The card is not the correct type for the command issued.

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

Error Message

%FLASH-3-DEVERR: Error accessing the device : Device number = [dec] Error number = [dec]

Explanation  An error was detected while accessing the CIS of the device. Possible causes are the following:

- The card was removed while the router was trying to access the card.
- The card is not the correct type for the command issued.

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

Explanation The System has detected an unsupported Flash memory configuration.

Recommended Action Ensure that the Flash memory SIMMs are of equal size. If they are not of equal size, either replace one of the SIMMs to make them equal size or remove the SIMM from System Flash slot 2.

FM Messages

The following are Feature Manager (FM) error messages.

Error Message
%FM-4-ACL_CONFLICT: Interface [chars] configured ACLs conflict in [chars] direction(s)

Explanation The configured routed ACLs for this interface conflict with the VACLs on this interface. The traffic on this interface may not comply with either the routed ACLs or VACLs under this condition.

Recommended Action Redefine either the VACLs or the routed ACLs, or deconfigure either the VACLs or the routed ACLs to avoid the conflict.

Error Message
%FM-2-ACL_FAILURE: Interface [chars] traffic will not comply with ACLs in [chars] direction(s)

Explanation ACLs will not be applied on traffic for this interface due to TCAM resource contention.

Recommended Action The configured ACLs are too large to for all of them to fit in the hardware TCAM. Use the mls tcam priority command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

Error Message
%FM-2-BAD_MESSAGE: Error in internal messaging - bad result [dec]

Explanation A software error may have affected programming ACLs into the TCAM.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%FM-2-BAD_TLV: Error in internal messaging - bad tlv [dec]

Explanation  A software error occurred while programming ACLs into the TCAM.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%FM-4-RACL_REDUCED: Interface [chars] routed traffic will be software switched in [chars] direction(s)

Explanation  TCAM resource contention has prevented ACLs from being applied in the TCAM for this interface. The traffic on this interface will be sent to the software so that the ACLs can be applied.

Recommended Action  The configured ACLs are too large to all fit in the hardware TCAM. Use the mls tcam priority command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

Error Message

%FM-2-SEQUENCE: Error in internal messaging - lost message (i/f [chars], dir [chars], type [dec])

Explanation  A software error may have occurred while programming ACLs into the TCAM.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%FM-2-TCAM_BAD_LOU: Bad TCAM LOU operation in ACL

Explanation  A software error caused a failure while programming ACLs into the TCAM.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%FM-4-TCAM_CAPMAP: Interface [chars] hardware TCAM LOU usage capability exceeded

Explanation The hardware TCAM lacks the capacity to handle the number of logical operations used with the configured ACLs on this specific interface.

Recommended Action The hardware TCAM can handle a maximum of 9 logical operations per interface and 64 logical operations in total. Reduce the use of logical operations in the ACLs.

Error Message
%FM-4-TCAM_ENTRY: Hardware TCAM entry capacity exceeded

Explanation The hardware TCAM lacks the capacity to handle all of the configured ACLs.

Recommended Action The configured ACLs are too large to all fit in the hardware TCAM. Use the mls tcam priority command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

Error Message
%FM-2-TCAM_ERROR: TCAM programming error [dec]

Explanation A software error has caused a failure while programming ACLs into the TCAM.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%FM-4-TCAM_LABEL: Hardware TCAM label capacity exceeded

Explanation The hardware TCAM does not have the capacity to handle the number of interfaces configured with ACLs.

Recommended Action The hardware TCAM can handle a maximum of 500 interfaces configured with ACLs. Use the mls tcam priority command to prioritize interfaces for hardware switching. Deconfigure ACLs from some of the interfaces.

Error Message
%FM-4-TCAM_LOU: Hardware TCAM LOU capacity exceeded

Explanation The hardware TCAM does not have the capacity to handle the number of logical operations used with the configured ACLs.

Recommended Action The hardware TCAM can handle a maximum of 9 logical operations per interface and a maximum of 64 logical operations in total. Reduce the use of logical operations in the ACLs.
Error Message

%FM-2-TCAM_MEMORY: NMP processor memory low

Explanation  Inadequate memory has caused a failure while programming ACLs into the TCAM.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%FM-2-VACL_FAILURE: Interface [chars] traffic will not comply with VACLs in [chars] direction(s)

Explanation  VACLs will not be applied on traffic for this interface due to TCAM resource contention.

Recommended Action  The configured ACLs are too large to all fit in the hardware TCAM. Use the `mls tcam priority` command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

FPGA Messages

The following are LS1010 chip-specific error messages.

Error Message

%FPGA-3-DOWNLOAD: Download Fail, FPGA# [dec]

Explanation  An FPGA download has failed.

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

Error Message

%FPGA-3-MCAST: Multicast FPGA don’t reset properly, Control Register=[hex]

Explanation  The FPGA chip failed to respond after downloading its control microcode. This error is probably caused by a hardware failure. It is a fatal condition for the system and will be followed by a core dump.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FPGA-3-NOFORK: Can’t create Per VC Counter daemon

Explanation The per-VC daemon could not be created.

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

Error Message
%FPGA-3-STATUS_PIN: Error in status pin, FPGA# [dec]

Explanation A status pin error has occurred.

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

Error Message
%FPGA-3-TRAFF: Traffic FPGA don’t reset properly, Control Register=[hex]

Explanation The FPGA does not reset properly.

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

Error Message
%FPGA-3-TYPE: ***WARNING*** Invalid feature card type – Use higher version of software: [hex]

Explanation An invalid feature card type was used. A higher version of Cisco IOS software is required.

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

Error Message
%FPGA-3-VERSION: Feature Card version invalid/old. Feature Card Version:[dec].[dec], ASP Version:[dec].[dec]

Explanation The feature card version is not valid.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Frame Relay error messages.

**Error Message**

%FR-3-BQ_DEQ_ERR: fr_bq_proc: unknown packet on broadcast queue, packet dropped!

**Explanation**  An invalid packet on the Frame Relay broadcast queue was dropped.

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

**Error Message**

%FR-3-BQ_DEQ_PTR: fr_br_proc: hdr-[hex] size-[dec] dlci-[hex] [hex] [hex]

**Explanation**  An invalid datagram start was received on the Frame Relay broadcast queue. The packet was dropped.

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

**Error Message**

%FR-3-BQ_ENQ_ERR: fr_oqueue: Invalid datagramstart [hex] [hex], pak dropped

**Explanation**  A broadcast packet with an invalid datagram start in the fr_oqueue has been received. The packet was dropped.

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

**Error Message**

%FR-5-DLCICHANGE: Interface [chars] - DLCI [dec] state changed to [chars]

**Explanation**  The state of the Frame Relay PVC specified by the DLCI has changed.

**Recommended Action**  No action is required.

**Error Message**

%FR-4-DLCIDELETE: Interface [chars] - DLCI [dec] - PVC use count [dec]

**Explanation**  An attempt was made to remove a PVC DLCI while it was still being used.

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

%FR-3-FRTSZERO: FRTS: attempt to configure zero CIR

Explanation  An attempt was made to configure a zero CIR. It should not be possible to configure a zero CIR; to do so would prevent data transmission on the VC.

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

Error Message

%FR-3-INCORRECT_INT: Incorrect output (sub)interface, broadcast packet dropped!

Explanation  The output subinterface specified in the packet is incorrect. The broadcast packet was dropped.

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

Error Message

%FR-4-NNISUBINTF: Subinterface not supported on Frame Relay NNI

Explanation  An attempt was made to change the state of a subinterface on the Frame Relay NNI.

Recommended Action  Reconfigure the Frame Relay link type or remove the subinterface.

Error Message

%FR-3-NOMEMORY: No memory for [chars]

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

FREEDM Messages

The following are CT3 trunk card Freedm error messages.

Error Message

%FREEDM-3-BUSYTIMEOUT: Freedm [chars] busy bit of register [hex] never cleared

Explanation  The driver has timed out while waiting for the Freedm to acknowledge a request.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FREEDM-2-FATALEVENT: Freedm [chars] fatal event occured: [hex][hex]

Explanation A catastrophic Freedm error has occurred.

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

Error Message
%FREEDM-3-HDLC_ALLOC_FAIL: Freedm [chars]: Allocation of HDLC controller [dec] for channel [dec] failed

Explanation Allocation of an HDLC controller has failed.

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

Error Message
%FREEDM-3-HDLC_INUSE: Freedm [chars]: HDLC controller [dec] already in use on channel [dec]

Explanation An attempt was made to use an HDLC controller that was already in use.

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

Error Message
%FREEDM-3-INITFAIL: Freedm [chars] initialization failed: [chars]

Explanation The Freedm device has failed initialization.

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

Error Message
%FREEDM-3-REG_READ_TIME_OUT: Busy Out Error of FREEDM [dec] [chars]

Explanation An attempt was made to read the Freedm internal RAM. The busy bit is still set for more than 10 seconds.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
FR_ELMI Messages

The following are Frame Relay enhanced Local Management Interface (LMI) error messages.

Error Message
%FR_ELMI-3-INcorrect_ID: Incorrect ID

Explanation  An incorrect ID was reported in a QoS parameter message.

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

Error Message
%FR_ELMI-3-INcorrect_IE: Incorrect IE

Explanation  Enhanced LMI is not configured on the interface. The frame was dropped.

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

FR_FRAG Messages

The following are Frame Relay Fragmentation error messages.

Error Message
%FR_FRAG-3-BADPAK: Inconsistent packet: size [dec], linktype [chars], input [chars], output [chars]

Explanation  A packet that is being fragmented has inconsistent size and data.

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

The following are Frame Relay Local Management Interface (LMI) error messages.

Error Message
%FR_LMI-3-INCORRECT_IE: Enhanced LMI not configured, incorrect IE

Explanation  An unexpected LMI information element has been received.

Recommended Action  Ensure that the configuration for enhanced LMI on the switch matches the configuration on the router.

FS_IPHC Messages

The following are Fast IP Header Compression error messages.

Error Message
%FS_IPHC-4-IPC_NO_CHUNK: IPC Chunk pool empty, slot [dec] VIP junked RSP msg

Explanation  The IP compression private memory pool for IPC messages has been exhausted.

Recommended Action  If this 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
%FS_IPHC-2-LC_CONTEXT_INIT_FAIL: Failed to initialise or allocate memory for TX/RX contexts

Explanation  The IP compression context tables have not been created because of a lack of memory resources. The line card cannot allocate memory for an IP header compression context.

Recommended Action  Reduce the number of contexts that are configured on all interfaces on the affected line card by using the ip rtp compression-connections interface configuration.

Error Message
%FS_IPHC-3-LC_INVALID_MSG: Received IPC message of unknown type

Explanation  The IP compression on the line card has received an unknown message from the RP.

Recommended Action  If this 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
%FS_IPHC-2-LC_IPHCDB_SETUP_FAIL: Failed to initialise or allocate memory for IP Compression database.

Explanation  The IP compression main database has not been created because of a lack of memory resources. The line card cannot allocate memory for an IP compression database.

Recommended Action  Add more memory if possible to the VIP. Free memory on the VIP by reducing features used or buffer allocations. Reduce the number of contexts configured on all interfaces on the affected line card by using the ip rtp compression-connections interface configuration.

Error Message
%FS_IPHC-4-LC_NOIPCBUFFER: Unable to malloc IPC msg buffer on line card. Send Message failed.

Explanation  The line card did not have enough memory in its private memory pool to send IPHC information to the RP.

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

Error Message
%FS_IPHC-2-LC_PROC_INIT: Line Card Failed to initialise distributed IP Hdr Comp Process

Explanation  The IP compression process was not created on the line card, possibly because of a lack of memory resources.

Recommended Action  Check the memory allocation on the line card and either upgrade the line card memory or reduce the feature burden in the interface configurations for the line card.

Error Message
%FS_IPHC-3-MSG_TOO_LARGE: Received IPC message too large to handle

Explanation  The IP compression has received an IPC message of a size larger than expected.

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

Error Message
%FS_IPHC-4-RP_IPCSENDFAIL: RP unable to send IPHC msg to Line Card

Explanation  The Route Processor was unable to send an IP header compression configuration message to a line card interface.

Recommended Action  Copy the error message exactly as it appears, and report it to your Cisco technical support representative. If possible, also provide the output of the debug ip rtp head and debug ip tcp head commands for the period during which this message had appeared.
Error Message
%FS_IPHC-2-RP_NOLCINFO: Unable to malloc state table for Line Card

Explanation  An internal data structure is missing because of a lack of memory resources.

Recommended Action  The Route Processor is dangerously low on memory resources. Free up memory by removing unwanted feature configuration or upgrade the memory on the Router Processor.

Error Message
%FS_IPHC-3-SEQ_ERROR: Received out of sequence IPC message

Explanation  IP compression has received an out-of-sequence IPC message.

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

FTC_TRUNK Messages

The following are Cisco 3801 platform error messages.

Error Message
%FTC_TRUNK-3-CID_IN_USE: [chars] connection-id [dec] is busy, try other cid

Explanation  When setting up a new session trunk, an operator has attempted to use a connection ID that is already assigned and in use. The selected connection ID cannot be used for this session trunk.

Recommended Action  Try to set up the new session trunk with a connection ID that is not already in use.

Error Message
%FTC_TRUNK-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation  The MPC860/PowerQUICC CPU was unable to access the memory it requires to carry out its functions. Here are some possible causes. The network is large, requiring a lot of memory for routing tables, and so on. The router configuration has many features enabled, each of which require a certain amount of memory. A software error (memory leak) exists.

Recommended Action  Reduce system activity to ease the memory demand, or upgrade to a larger memory configuration.
Error Message
%FTC_TRUNK-1-RELOAD: Must reload to config Interface [chars] as ftc-trunk again

Explanation  If the operator first configures an interface based on the use of the encapsulation ftc-trunk command and later reconfigures the interface to some other encapsulation, such as HDLC, and then attempts to reconfigure it based on the encapsulation ftc-trunk command, this error messages is displayed to notify the operator that the reload command must be first entered before using the encapsulation ftc-trunk command again.

Recommended Action  Enter the reload command.

Error Message
%FTC_TRUNK-3-TOOMANY: Cannot config more than [dec] ftc-trunks

Explanation  When the operator enters the encapsulation ftc-trunk configuration command, if there are already four interfaces configured for the encapsulation ftc-trunk command, this message is displayed to indicate that no more interfaces can be configured using this command.

Recommended Action  Free up one of the other interfaces first or, if conditions warrant, upgrade to a larger configuration with more interfaces.

Error Message
%FTC_TRUNK-3-TOOMANY_SESSION: Cannot config more than [dec] session-trunks

Explanation  When the operator enters the encapsulation ftc-trunk configuration command, if there are already four interfaces configured using the encapsulation ftc-trunk configuration command, this message is displayed to indicate that no more interfaces can be configured using this command.

Recommended Action  Free up one of the existing interfaces first or, if conditions warrant, upgrade to a larger configuration with more interfaces.

FTPSERVER Messages

The following are FTP server processes error messages.

Error Message
%FTPSERVER-6-CONNCLOSED: Connection closed after [dec] seconds. ’[chars]’

Explanation  The FTP connection to a client was closed after five minutes of inactivity.

Recommended Action  Client inactivity will cause the server to close the connection. Restart FTP.

Error Message
%FTPSERVER-6-CWDFAILED: setcwd failed ([chars]).

Explanation  An FTP client request has failed to change to the requested directory.

Recommended Action  Verify the correct path for the desired directory.
Error Message
%FTPSERVER-6-NETRDFAILED: FTP control connection / tcp_read failed.

Explanation  An error occurred while the command line from the FTP client was being read.

Recommended Action  Verify the network connection from the client to the server. Verify the FTP client operation.

Error Message
%FTPSERVER-6-NETWRTFAILED: FTP Server:connection / tcp_write failed.

Explanation  A TCP write failed while an FTP command reply was being sent to the client.

Recommended Action  Verify network connection from the client to the server. Verify the FTP client operation.

Error Message
%FTPSERVER-6-NEWCONN: FTP Server - new connection made.

Explanation  A new FTP server connection has opened.

Recommended Action  To disable the new FTP server connection, use the no ftp-server enable command.

Error Message
%FTPSERVER-6-REPLYLOGN: (REPLY) [dec]

Explanation  An FTP login has occurred.

Recommended Action  This is an informational message only. Informational messages can be disabled by changing the logging level.

Error Message
%FTPSERVER-6-REPLYLOGTEXT: [dec][chars]

Explanation  This text was sent to the FTP client.

Recommended Action  This is an informational message only. Informational messages can be disabled by changing the logging level.

Error Message
%FTPSERVER-6-TOPDIRTEST: Input path failed Top-dir([chars]) test.

Explanation  An operation has attempted to use a path that was not within the tree under the ftp-server topdir command configuration parameter.

Recommended Action  Reconfigure the ftp-server topdir command parameter, or select another path.
FTSP Messages

The following are Fax Telephony Server Provider subsystem error messages.

Error Message
%FTSPA-6-FAX_CONNECT: [chars]

Explanation  A fax carrier has been detected.

Recommended Action  No action is required.

Error Message
%FTSPA-6-FAX_DISCONNECT: [chars]

Explanation  A fax call has disconnected.

Recommended Action  No action is required.

Error Message
%FTSPA-4-FMAIL_FAILED_AUTHENTICATION: Authentication for > [chars] < failed

Explanation  An attempt to authenticate the specified user has failed.

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

Error Message
%FTSPA-4-FMAIL_NO_ACCOUNTING: FAXMAIL: Accounting for tty([dec]) failed

Explanation  Accounting has failed for the specified tty.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FTSP-4-HARDWARE_ERROR: tty ([dec])

Explanation A hardware interface had not been configured before a fax call was answered or attempted.

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

Error Message
%FTSP-2-INTERNAL_ERROR: Internal software error. [chars]

Explanation An internal software error has occurred.

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

Error Message
%FTSP-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation The requested operation could not be accomplished because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%FTSP-4-UNEXPECTEDEVENT: Bad event received [dec], [dec]

Explanation An unexpected event was received.

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

FW Messages

The following are inspection subsystem error messages.

Error Message
%FW-4-ALERT_OFF: [chars], count ([dec]/[dec]) current 1-min rate: [dec]

Explanation Either the number of half-open connections or the new connection initiation rate has gone below the max-incomplete low threshold. This message indicates that the rate of incoming new connections has slowed and is issued only when the max-incomplete low threshold is crossed.

Recommended Action This message is for informational purposes only, but it may indicate that an attack has stopped.
Error Message
%FW-4-ALERT_ON: [chars], count ([dec]/[dec]) current 1-min rate: [dec]

Explanation Either the max-incomplete high threshold of half-open connections or the new connection initiation rate has been exceeded. This error message indicates that an unusually high rate of new connections is coming through the firewall, and a DOS attack may be in progress. This message is issued only when the max-incomplete high threshold is crossed.

Recommended Action This message is for informational purposed only, but it may indicate a security problem.

Error Message

Explanation Any subsequent new TCP connection attempts to the specified host will be denied because the max-incomplete host threshold of half-open TCP connections is exceeded, and the blocking option is configured to block the subsequent new connections. The blocking will be removed when the configured block time expires.

Recommended Action This message is for informational purposes only, but it may indicate that a SYN flood attack was attempted.

Error Message
%FW-3-FTP_NON_MATCHING_IP_ADDR: Non-matching address [IP_address] used in [chars] -- FTP client [IP_address] FTP server [IP_address]

Explanation An FTP client has attempted to use a PORT command or the FTP server has attempted to use the response to a PASV command to trick the firewall into opening access to a third-party host that is different from the two hosts engaged in the FTP connection. This message indicates that a suspicious violation was detected while attempting to modify the security policy in the firewall. The command is rejected, and the connection is reset by the firewall.

Recommended Action This message is for informational purposes only, but it may indicate that an attempt was made to grant or open access to unauthorized hosts.

Error Message

Explanation An FTP client has attempted to use a PORT command or the FTP server has attempted to use the response to a PASV command to trick the firewall into opening access to a privileged port. This message indicates that a suspicious violation was detected from the FTP client or server that is attempting to modify the security policy in the firewall. The command is rejected, and the connection is reset by the firewall.

Recommended Action This message is for informational purposes only, but it may indicate that an attempt was made to gain access to privileged ports.
Error Message
%FW-3-FTP_SESSION_NOT_AUTHENTICATED: Command issued before the session is authenticated -- FTP client [IP_address] FTP server [IP_address]

Explanation An FTP client has attempted to use the PORT command or an FTP server has attempted to use the response to a PASV command to open a data channel in the firewall prior to the client’s successful authentication with the server. This is a suspicious attempt by the client or server to trick the firewall into opening a hole so that outside attackers can take advantage of the firewall opening. This message indicates that a suspicious violation was detected, and the PORT or PASV command or response is rejected by the firewall. The data channel in the firewall will not be opened until the authentication is successfully completed.

Recommended Action This message is for informational purposes only, but it may indicate that an illegal attempt was made to modify the firewall security policy.

Error Message
%FW-4-HOST_TCP_ALERT_ON: Max tcp half-open connections ([dec]) exceeded for host [IP_address].

Explanation The max-incomplete host limit of half-open TCP connections has been exceeded. This message indicates that a high number of half-open connections is coming to the protected server, and it may indicate that a SYN flood attack is in progress and is targeted to the specified server host.

Recommended Action This message is for informational purposes only, but it may indicate that a SYN flood attack was attempted. If this alert is issued frequently and identified to be mostly false alarms, then the max-incomplete host threshold value is probably set too low, and there is a significant amount of legitimate traffic coming into that server. In this case, the max-incomplete host parameter should be set to a higher number to avoid false alarms.

Error Message
%FW-3-HTTP_JAVA_BLOCK: JAVA applet is blocked from ([IP_address]:[dec]) to ([IP_address]:[dec])

Explanation A Java applet was seen in the HTTP channel, and the firewall configuration indicates that the applet from this Web site should be prohibited. The message indicates that the applet is being downloaded from one of the prohibited sites, and its entrance to the protected network is not allowed. The connection is reset, and the transmission of the detected applet is aborted immediately.

Recommended Action This message is for informational purposes only, but it may indicate a security problem.

Error Message
%FW-3-NOTFOUND: Session context for ([IP_address]:[dec]) => ([IP_address]:[dec]) not found.

Explanation The CBAC code was searching its database for information for a particular inspection session, but this information was not found.

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

`%FW-6-SESS_AUDIT_TRAIL: [chars] session initiator ([IP_address]:[dec]) sent [int] bytes -- responder ([IP_address]:[dec]) sent [int] bytes`

**Explanation**  This message documents the per-session transaction log of network activities. The message is issued at the end of each inspected session, and it records the source and destination addresses and ports, as well as the number of bytes transmitted by the client and server.

**Recommended Action**  This message is for informational purposes only and can be used to collect the basic accounting for the inspected sessions.

Error Message

`%FW-3-SMTP_INVALID_COMMAND: Invalid SMTP command ([chars]) (total [dec] chars) from initiator ([IP_address]:[dec])`

**Explanation**  The CBAC code detected an invalid SMTP command in the inspected SMTP connection. This message indicates that a suspicious violation was detected that may be an attack on the mail server system. The command is rejected, and the connection is immediately reset by the firewall.

**Recommended Action**  This message is for informational purposes only, but it may indicate a security problem.

Error Message

`%FW-4-TCP_MAJORDOMO_EXEC_BUG: Majordomo Execute Attack - from [IP_address] to [IP_address]`

**Explanation**  A bug in the Majordomo program will allow remote users to execute arbitrary commands at the privilege level of the server.

**Recommended Action**  For security reasons, users should not be allowed to execute programs through e-mail servers. This message is a very serious indication that your network may be under attack, and the source should be blocked immediately.

Error Message

`%FW-4-TCP_SENDMAIL_BAD_FROM_SIG: Sendmail Invalid Sender - from [IP_address] to [IP_address]`

**Explanation**  This message appears whenever an e-mail message has a pipe symbol (|) in the “From:” field.

**Recommended Action**  For security reasons, users should not be allowed to execute programs through e-mail servers. This message is a very serious indication that your network may be under attack, and the source should be blocked immediately.
Error Message

%FW-4-TCP_SENDMAIL_BAD_TO_SIG: Sendmail Invalid Recipient - from [IP_address] to [IP_address]

Explanation  This message appears whenever an e-mail message has a pipe symbol (|) in the recipient field.

Recommended Action  For security reasons, users should not be allowed to execute programs through e-mail servers. This message is a very serious indication that your network may be under attack, and the source should be blocked immediately.

Error Message

%FW-4-TCP_SENDMAIL_DECODE: Sendmail Decode Alias - from [IP_address] to [IP_address]

Explanation  This message appears whenever an e-mail message has “:decode@” in the header. The decode alias is used to decode files and is implemented primarily as a convenience for system administration.

Recommended Action  For security reasons, users should not be allowed to execute programs through e-mail servers. This message is a very serious indication that your network may be under attack, and the source should be blocked immediately.

Error Message

%FW-4-TCP_SENDMAIL_INVALID_COMMAND: Invalid SMTP command - [IP_address] to [IP_address]

Explanation  This message appears whenever an invalid SMTP command is reported in the SMTP connection. This message indicates that a suspicious violation was detected that may be an attack on the mail server system.

Recommended Action  This is unusual traffic and may warrant investigation.

Error Message

%FW-4-TCP_SENDMAIL_OLD_SIG: Archaic Sendmail Attacks - from [IP_address] to [IP_address]

Explanation  Triggers when wiz or debug commands are sent to the SMTP port.

Recommended Action  For security reasons, users should not be allowed to execute programs through e-mail servers. This message is a very serious indication that your network may be under attack, and the source should be blocked immediately.

Error Message

%FW-4-UNBLOCK_HOST: New TCP connections to host [IP_address] no longer blocked

Explanation  New TCP connection attempts to the specified host are no longer being blocked. This message indicates that the blocking of new TCP connection attempts to the specified host has been lifted.

Recommended Action  This message is for informational purposes only, but it may indicate a SYN flood attack was attempted on the host.
FX1000 Messages

The following are FX1000 Gigabit Ethernet controller error messages.

Error Message

%FX1000-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation  A possible hardware error resulted in the discovery of too few Gigabit Ethernet interfaces.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%FX1000-3-ERRINT: [chars], error interrupt, csr_STATUS=[hex]

Explanation  The Gigabit Ethernet controller has signaled a PCI error condition.

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

Error Message

%FX1000-1-INITFAIL_NOMEM: [chars], initialization failed, no buffer memory

Explanation  The Gigabit Ethernet port initialization has failed because of insufficient memory.

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

Error Message

%FX1000-5-LOSTCARR: [chars] cable/transceiver problem?

Explanation  The Gigabit Ethernet port detects link failure, meaning that it is no longer receiving signals from the LAN. This can be caused by disconnected Gigabit Ethernet cabling, a GBIC failure, or a shutdown on the remote end.

Recommended Action  Check your Gigabit Ethernet wiring and port adapter. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%FX1000-2-NOISL: Interface [chars] does not support ISL

Explanation The ISL is not supported on the hardware of the specified interface.

Recommended Action No action is required.

Error Message
%FX1000-3-NOTFX1000: PA bay [int], device number [int]: unknown device ([hex])

Explanation The Gigabit Ethernet port adapter does not contain a gigabit controller chip.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
FX1000-3-SEQUENCE_ERR: [chars], error interrupt, csr_STATUS=%[hex]

Explanation The Gigabit Ethernet controller has signaled a sequence error condition. The proper sequence of symbols is as follows: idle, start-of-frame (SOF), data, pad (optional), end-of-frame (EOF), fill (optional), idle.

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

Error Message
%FX1000-3-TOOBIG: [chars], packet too big ([dec]), from [enet]

Explanation The interface has detected a packet larger than what is defined by the MTU.

Recommended Action Check the MTU setting of the other station. No action is required.
GK Messages

The following are GK-H.323 error messages.

Error Message
%GK-6-GK_CLI_RAS_IP_CHANGED: The IP address which has been changed was the gatekeeper's configured RAS address. Existing RAS clients will no longer be able to reach the gatekeeper.

Explanation The IP address that is being changed at the interface was statically assigned to the gatekeeper for its RAS signaling using the `zone local` command. This action will automatically replace the static RAS address of the gatekeeper with the new IP address. Because the old RAS address of the gatekeeper is no longer valid, existing clients that are registered to this gatekeeper using the old RAS address will no longer be able to communicate with this gatekeeper.

Recommended Action The user must notify existing RAS clients of the change and tell them to reregister their systems using the new RAS address of the gatekeeper, as shown in the `show gatekeeper zone status` command output.

Error Message
%GK-6-GK_CLI_RAS_IP_REMOVED: The IP address which has been removed was the gatekeeper's configured RAS address. The system will automatically assign a new IP address (if available) to be used as the gatekeeper's RAS address. Existing RAS clients will no longer be able to reach the gatekeeper.

Explanation The IP address that is being removed at the interface was statically assigned to the gatekeeper for its RAS signaling using the `zone local` command. This action will automatically remove the static RAS address of the gatekeeper. Because the gatekeeper no longer has a configured RAS address, the router will automatically assign an IP address (if any) to the gatekeeper. Existing clients that have registered to this gatekeeper through the old RAS address will no longer be able to communicate with this gatekeeper.

Recommended Action The user must notify existing RAS clients of the change and tell them to reregister their systems using the new RAS address of the gatekeeper, as shown in the `show gatekeeper zone status` command output.

Error Message
%GK-6-GK_CLOSE_SRV_CONNECTION: The connection to GKTMP server [chars]([IP_address]) appears to be hung and will be closed.

Explanation Messages are being backed up in the gatekeeper's write queue in the connection with the specified server name. The connection is assumed to be invalid, and the gatekeeper is closing the connection. This situation implies that messages will not be sent to that server for processing until either the gatekeeper or the server reinitiates the connection.

Recommended Action Check with the specified server for a possible connection error.
Error Message
%GK-6-GK_FLOAT_RAS_IP_CHANGED: The gatekeeper’s RAS address has been automatically changed by the system. Existing RAS clients may no longer be able to reach the gatekeeper.

Explanation  The IP address being changed at the interface causes the system to look for a better IP address to be used for the RAS address of the gatekeeper. Existing clients that have registered to this gatekeeper using the old RAS address may no longer be able to communicate with this gatekeeper.

Recommended Action  The user must notify existing RAS clients to reregister their systems to the new RAS address of the gatekeeper, as shown in the show gatekeeper zone status command output.

Error Message
%GK-3-GW_PROXY_ADD_COST_FAIL: GW/Proxy add cost failed. Could be out of memory.

Explanation  The GW/PROXY add cost has failed. The system could be out of memory.

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

Error Message
%GK-3-GW_PROXY_ALIAS_NOT_FOUND: GW/Proxy not found for specified alias name [chars].

Explanation  The GW/PROXY was not found for the specified alias name.

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

Error Message
%GK-3-GW_PROXY_ENDPT_NOT_FOUND: GW/PROXY may not be registered. Add cost failed.

Explanation  An add cost has failed. The GW/PROXY may not be registered.

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

Error Message
%GK-3-GW_PROXY_IP_NOT_FOUND: GW/Proxy not found for specified IP address [IP_address].

Explanation  The GW/PROXY was not found for the specified IP address.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GK-3-INVALID_GK_CMD: To shutdown Gatekeeper, use the "shutdown" command in the Gatekeeper mode.

Explanation  An invalid command was used to shut down the Gatekeeper.

Recommended Action  To shut down the Gatekeeper, use the shutdown command in the Gatekeeper mode. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%GK-3-NO_DISC_PORT: Unable to open or bind to gatekeeper discovery port. Bringup failed.

Explanation  The system is unable to open or bind to the Gatekeeper discovery port, and the bringup process has failed.

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

Error Message
%GK-3-NO_RAS_PORT: Unable to open or bind to RAS well-known port. Bringup failed.

Explanation  The system is unable to open or bind to the RAS well-known port, and the bringup process has failed.

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

Error Message
%GK-3-PARTIAL_STATIC_ALIAS: Not all aliases were successfully created. Use the "show gatekeeper endpt"command to check on successful aliases.

Explanation  Not all aliases were successfully created.

Recommended Action  Use the show gatekeeper endpoints command to confirm the successful aliases.

Error Message
%GK-3-PROC_CB_NOMEM: No memory for process control block. Gatekeeper bringup failed.

Explanation  No memory was available for the process control block. The Gatekeeper bringup process has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GK-3-PROC_EV_NOMEM: No memory for free event queue. Gatekeeper bringup failed.

Explanation  No memory is available for the free event queue. The Gatekeeper bringup process has failed.

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

Error Message
%GK-3-PROC_NOCREAT: Unable to create gatekeeper process. Gatekeeper bringup failed.

Explanation  No memory is available to create the Gatekeeper process. The Gatekeeper bringup process has failed.

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

Error Message
%GK-4-PROC_NOTALL: Unable to create more than [dec] gk thread processes.

Explanation  The system could not create more than the specified number of Gatekeeper thread processes.

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

Error Message
%GK-3-PROC_NOTDOWN: Invalid state ([chars]): bringup is only permitted after shutdown.

Explanation  This message reports an invalid state. The bringup process will be permitted only after a shutdown is performed.

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

%GK-3-PROC_NOTUP: Invalid state ([chars]): shutdown is only permitted after bringup.

**Explanation**  This message reports an invalid state. The bringup process will only be permitted after a shutdown is performed.

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

Error Message

%GK-3-SHUTDOWN_WITH_CALLS: Cannot shutdown gatekeeper because there are calls in progress.

**Explanation**  The Gatekeeper shutdown will not take place because there are calls in process.

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

Error Message

%GK-3-STATIC_ALIAS_FAILED: static-alias command failed. Could not create endpoint in endpoint database.

**Explanation**  The alias static command has failed, and an endpoint could not be created in the endpoint database.

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

Error Message

%GK-3-STATIC_ALIAS_GW_FAILED: A static endpoint was added into the database but failed to create a gateway.

**Explanation**  A static endpoint was added into the database, but it failed to create a gateway.

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

Error Message

%GK-3-SUBNET_FAILED: Failed to add/modify subnet information for specified subnet [IP_address]/[IP_address].

**Explanation**  The subnet information for the specified subnet could not be created.

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

%GK-3-SUBNET_NO_ATTRIBUTES: Please specify attribute [default | explicit] for this command.

**Explanation**  No attribute (default or explicit) was specified for this command.

**Recommended Action**  If an attribute was specified, and this error message was generated, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%GK-3-SUBNET_NOT_FOUND: Subnet not found under specified IP address [IP_address]/[IP_address].

**Explanation**  The subnet was not found under the specified IP address.

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

**Error Message**

%GK-3-ZONE_ACTIVE: There are endpoints currently registered in zone [chars]. Zone remove failed

**Explanation**  Endpoints are currently registered in the specified zone; therefore, the zone could not be removed.

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

**Error Message**

%GK-3-ZONE_NOT_FOUND: Zone not found for specified Gatekeeper name [chars].

**Explanation**  The zone was not found for the specified Gatekeeper name.

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

The following are Internet router error messages.

Error Message

%GLCFR-3-DLCIRANGE: [chars][chars] bad dlci value [int]

Explanation The GLC Frame Relay support code has received an invalid DLCI number.

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

GPRSFLTMG Messages

The following are Global Packet Radio Service Fault Management error messages.

Error Message

%GPRSFLTMG-4-AAAFAIL_PDPACTIVATIONFAIL: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

Explanation A PDP activation failure has occurred. The reason code indicates the probable cause.

1. No RADIUS server is present for authentication (no RADIUS server has been configured or the configured RADIUS server is not reachable).

2. Authentication failed because of an invalid username or password.

3. A PAP or a CHAP IE is missing in the packet in nontransparent mode.

4. The username field is not present in the PDP activation request field.

Recommended Action Take the numbered action that corresponds to the probable reason:

1. Ensure that the RADIUS server is configured properly and that the local server is able to ping the RADIUS server.

2. Ensure that the RADIUS server is configured properly.

For reasons 3 or 4 or if the message recurs, copy the error message exactly as it appears on the console or in the system log. Issue the show running configuration command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show running configuration command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%GPRSFLTMG-4-APNRELATEDERROR_PDPACTIVATIONFAIL: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

Explanation A PDP activation failure has occurred. The reason code indicates the probable cause.

1. The APN requested in the PDP request is not configured in the GGSN router.
2. APN is in subscribe mode, but the selection mode field is not verified in the PDP request.
3. A duplicate static IP address is being used to access the same APN.

**Recommended Action** Ensure that the APN is configured correctly. If the message recurs, copy the error message exactly as it appears on the console or in the system log. Issue the `show running configuration` and `show gprs access-point all` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show running configuration` and `show gprs access-point all` command outputs, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%GPRSFLTMG-4-CHARGING: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** The primary or secondary charging gateway has been either configured or unconfigured.

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

**Error Message**

%GPRSFLTMG-0-GPRS_SERVICE: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** An error has occurred. The reason code indicates the probable cause.
1. A path failure has occurred. No echo message has been received from the GSN peer and timeout.
2. The system cannot send a GTP message using the specified socket.
3. The GGSN service has started.
4. The GGSN service has shut down.
5. The primary charging gateway cannot be reached or is unconfigured.
6. The primary charging gateway is up or is configured.
7. The secondary charging gateway is up or is configured.
8. The secondary charging gateway has become unreachable or is unconfigured.
9. A permanent system failure has occurred.

**Recommended Action** Error messages with the reason code of 3, 6, or 7 are informational. If you receive an error message with any of the other reasons, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%GPRSFLTMG-4-IPALLOCATIONFAIL_PDPACTIVATIONFAIL: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** The IP address could not be allocated dynamically. The reason code indicates the probable cause.
1. A problem involving the DHCP or RADIUS server has occurred as follows:
   a. The DHCP or RADIUS server IP address has been wrongly configured in the GGSN.
b. It is possible to reach the DHCP or RADIUS server, but the configuration to allocate the IP address could be incorrect.

c. The DHCP or RADIUS server is properly configured, yet it cannot be reached.

2. Dynamic IP allocation is disabled in the APN configuration.

3. The PAP or CHAP username and password information is missing from the RADIUS client in transparent mode. This information is missing in the PDP activation request field.

**Recommended Action** Take the numbered action that corresponds to the probable reason:

1. If the problem was with the DHCP or RADIUS server:
   a. Ensure that the GGSN is configured with a valid DHCP or RADIUS server IP address.
   b. Ensure that the DHCP or RADIUS server is properly configured to allocate an IP address.
   c. Ensure that the server can be reached from the GGSN.

2. Configure the IP allocation pool as either a DHCP proxy client or a RADIUS client in the APN. If the problem recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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

**Error Message**

%GPRSFLTMG-4-MOBILITYERROR: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** A failure involving a mobility station has occurred. The reason code indicates the probable cause.

1. The mobility station is detached.
2. The mobility station is not responding.
3. The mobility station refused to receive the signals.

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

**Error Message**

%GPRSFLTMG-0-NORESOURCE: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** GGSN service cannot continue because available resources have been exhausted. The reason code indicates the probable cause.

1. The PDP number has reached its limit.
2. The number of pending signaling messages has reached its limit.
3. Memory is insufficient in the GGSN.

**Recommended Action** If the reason is 1, increase the PDP number that the GGSN can accommodate, if possible. If this message recurs, copy the error message exactly as it appears on the console or in the system log. Issue the `show gprs gtp status` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gprs gtp status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%GPRSFLTMG-0-PACKETPARSINGERROR: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** A PDP context activation failed at the packet parsing state. The reason code indicates the probable cause.

1. A mandatory IE is missing in the PDP.
2. The mandatory IE has an invalid range of value.
3. The mandatory IEs are not in sequence.
4. There is an invalid message format.
5. An optional IE in the packet has an invalid range of value.
6. The GGSN node does not support the GTP version received.
7. A noncharging message appears in the charging path.
8. A charging message appears in the GTP path.
9. There is an unknown GTP message.
10. The GTP message that was received is too short to contain all expected information about the IE.
11. An unexpected message appeared.

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

**Error Message**

%GPRSFLTMG-6-PDP_PURGED: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

**Explanation** The PDP context has been purged because of a PDP context idle timeout.

**Recommended Action** No action is required.
GPRSMIB Messages

Error Message

%GPRSFLTMG-4-QOSFAIL_PDPACTIVATIONFAIL: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

Explanation  QoS negotiation or update has failed because resources are not available.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show gprs gtp status command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show gprs gtp status command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%GPRSFLTMG-4-RECOVERYIEDIFF: GSN: [IP_address], TID: [hex][hex], APN: [chars], Reason: [dec], [chars]

Explanation  The GGSN has received policy decision point (PDP) update requests with different recovery information elements in the same path.

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

GPRSMIB Messages

The following are Global Packet Radio Service MIB error messages.

Error Message

%GPRSMIB-4-FRAGMENT_ERROR: fragmentation error (s_uid = [hex]) received

Explanation  An internal software error has occurred.

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

Error Message

%GPRSMIB-4-INVALIDMSG: Invalid GPRSMIB message (msg_type [hex]) received

Explanation  An internal software error has occurred.

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

The following are XNS Routing Protocol error messages.

Error Message
%GRIP-3-BADPATHS: Invalid number of paths ([dec]) for [APOLLO/XNS/UB]

Explanation An internal inconsistency was detected in the XNS routing table structure.

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

Error Message
%GRIP-2-BADROUTE: Error [chars] route - null table

Explanation A hardware or a software error has occurred.

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

GRP Messages

The following are gigabit route processor (GRP) error messages.

Error Message
%GRP-3-ADDRERROR: Bad access to fabric-buffers: invalid address

Explanation An illegal access has been made to the fabric buffers. This problem usually indicates a software error.

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

Error Message
%GRP-4-BADLENGTH: Internal fabric register mismatch. Expected length = [int]. Received length = [int].

Explanation A packet has been received from the fabric, but the packet length received and the packet length indicated in the buffer header do not match.

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

%GRP-4-BAD_PKT: CSAR: Received slot [int] Chan [int]

Explanation An invalid packet was received at CSAR.

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

Error Message

%GRP-3-BAD_RESET:

Explanation The software attempted to reset itself over the MBUS.

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

Error Message

%GRP-3-BAD_STATE: Slot:[int] State:[chars]

Explanation The software is in an incorrect state for receiving the current packet over the fabric. The message reports the slot in which the packet was received and describes the state of the reassembly.

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

Error Message

%GRP-3-BADSTATE: Reassembly state is bad for slot [int]. State = [int]

Explanation The software is in an incorrect state for receiving the current packet over the fabric. The message reports the slot in which the packet was received and describes the state of the reassembly.

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

Error Message

%GRP-3-BMAUCODE_ALLOC: Failed buffer allocation for [chars]

Explanation A data structure could not be allocated to contain the contents of the given BMA microcode file. There may be insufficient DRAM.

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

%GRP-3-BMAUCODE_BAD: Slot [dec]: bad slot state ([dec]) or card type ([hex] - [chars])

Explanation The software is not able to select or download the given BMA microcode on the given slot. Either the line card is not present, there is a card type other than a line card in the given slot, or the line card is not enabled.

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

Error Message

%GRP-3-BMAUCODE_ENABL: No line cards enabled: selector [chars], feature [chars]

Explanation The selection or download of the BMA microcode failed for all slots, selector, and features. There are no enabled line cards.

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

Error Message

%GRP-3-BMAUCODE_FAIL: Slot [dec], selector [chars], feature [chars]

Explanation The selection or download of the BMA microcode has failed for the given slot, selector, and feature. The line card could be disabled, or there could have been an error on the line card during the attempt to select or download the BMA microcode.

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

Error Message

%GRP-3-BMAUCODE_FILE: Error reading [chars]

Explanation The given binary BMA microcode could not be read, probably because it was not found.

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

%GRP-3-BMAUCODE_SELECTOR: Command selector [chars] != file header selector [chars]

**Explanation**  For the bma microcode download command, the selector specified on the command line does not match the selector in the binary BMA microcode file.

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

Error Message

%GRP-4-CAMFULL: Too many entries in the Ethernet CAM

**Explanation**  Too many MAC addresses were put into the CAM of the Ethernet. This problem usually indicates a software error.

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

Error Message

%GRP-3-CARVE_ADD: Failed to add buffer size [int] with delta [int]

**Explanation**  The specified buffer size could not be added to the SDRAM buffer carve specification because of one of the following internal parameter errors: an exceeded number of available elements, an excessive delta size, or null parameters.

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

Error Message

%GRP-3-CARVE_FAIL: [chars] BMA, slot [int]

**Explanation**  One of the following problems has occurred: the SDRAM buffer carve on the given line card failed, the RP failed to send the carve information to the line card through IPCs, or the carve result from the line card failed to return to the RP. The line card probably is disabled.

**Recommended Action**  Try rebooting the line card. If rebooting the line card does not resolve the problem, consider power-cycling the router. If the message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP-3-CARVE_FREEQS: Free queues ([int]) > allowed ([int])

Explanation  The number of free queues allowed for the SDRAM buffer carving has been exceeded.

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

Error Message
%GRP-4-CARVE_MTU: Only [int] MTUs considered (max = [dec])

Explanation  The list of different MTUs that can be considered in the SDRAM buffer carving is limited by the given maximum number.

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

Error Message
%GRP-3-CARVE_PCT: Sum percentage SDRAM buffers ([int]) > 100

Explanation  The specified sum of percentages for SDRAM buffer sizes has exceeded 100.

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

Error Message
%GRP-3-CARVE_SIZE: SDRAM buffer size [int] < its delta [int]

Explanation  The rounded-up SDRAM buffer size should be larger than the specified size.

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

Error Message
%GRP-3-CARVE_SPEC: Empty SDRAM buffer carve specification

Explanation  There is no SDRAM buffer carve specification to send to a line card.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP-3-CARVE_ZERO: [chars] BMA, slot [int], entry index [int]: zero SDRAM buffer size

Explanation The given SDRAM buffer size should not be zero.

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

Error Message
%GRP-4-CELLNEG: Detected an internal signal error on the fabric interface.

Explanation An internal signal between the CSAR and the FIA was deasserted too early.

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

Error Message
%GRP-4-COOKIE: Corrupt or missing MAC address cookie -- using random base [enet]

Explanation The part containing the MAC addresses allocated to this chassis could not be accessed or was found to be corrupt, either because of a hardware problem or because of a manufacturing problem.

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

Error Message
%GRP-3-COREDUMP: Core dump incident on slot [dec], error: [chars]

Explanation The master GRP has detected a line card or a secondary Route Processor whose state is so close to failure that a diagnostic core dump is appropriate. If exception core dumps are configured for that slot, a dump will be taken. The error message provides further details of the error that has caused the dump request.

Recommended Action This error may be caused by a hardware or software failure. Run diagnostic tests on the line card by entering the `diag slot-number verbose` EXEC command, and replace the card if it fails the tests. Note that the line card will be disabled for the duration of the diagnostics. Use the `hw-module slot reload` EXEC command if the card remains disabled after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP-4-CORRUPT: Corrupted packet received. start_offset = [int] length = [int] card = [int].

Explanation  A buffer with a corrupted buffer header has been received from the fabric.

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

Error Message
%GRP-4-CRC32: CRC32 error detected from slot [int].

Explanation  A CRC32 error has been detected.

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

Error Message
%GRP-3-ERROR: [chars]

Explanation  This message provides information about a software error.

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

Error Message
%GRP-4-ETHERPAL: Ethernet PAL on the GRP is missing.

Explanation  The system software has detected that the Ethernet PAL on the GRP either is missing or is improperly installed.

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

Error Message
%GRP-3-EXEC_ALLOC: No memory for command

Explanation  No memory was available to allocate for the remote command string.

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

%GRP-3-EXEC_ENABL: No line cards enabled

Explanation  There are no enabled line cards.

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

Error Message

%GRP-3-EXEC_SLOT: Slot [dec] not enabled

Explanation  There is no card in the given slot, or the card exists but is not enabled.

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

Error Message

%GRP-3-FABCOPY: [chars] address = [hex].

Explanation  The fabric driver software has passed an incorrectly aligned pointer.

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

Error Message

%GRP-3-FABRIC: [chars] ([int])

Explanation  The master GRP is unable to communicate over the fabric to the specified line card.

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

Error Message

%GRP-3-FABRIC_MULTI: [chars] ([hex])

Explanation  A problem has been detected between the master RP and a line card over the fabric.

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

%GRP-3-FABRIC_UNEXP: [chars] ([int])

**Explanation**  An unexpected message has been received from the specified line card.

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

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**Error Message**

%GRP-3-FABRIC_UNI: [chars] ([int])

**Explanation**  A hardware or software problem has been detected over the fabric between the master RP and the card in the slot specified in the error message. This condition could be created by, most likely, a software problem or, less likely, a hardware problem.

The following is a list of possible reasons for this message; however, it is not all-inclusive:

- A software failure has occurred in which a process has disabled interrupts long enough for 5 consecutive fabric pings to be missed. This condition indicates a problem with the software on the destination card.
- The RP could not send a fabric ping to the specified line card. If a fabric ping cannot be sent for a number of consecutive times, the destination card will be reset.
- The RP could not send data other than a fabric ping to the specified line card. If the data that has failed to be sent is not a fabric ping, the destination card will not be reset, but this condition may affect other functionality of the RP; for example, CEF might be disabled.
- A hardware problem has occurred on the RP or GRP, in the fabric, or on the destination card. If the error was due to a hardware problem with the GRP, other IPC timeout messages would be logged before the fabric ping failure and entering the `show contr fia` command on the GRP would show errors, while entering the `show contr fia` command on the line card would not.

**Recommended Action**  Consider upgrading the system to the latest Cisco IOS software version in your release train to eliminate all resolved software problems. If this message recurs, copy the error message exactly as it appears on the console or in the system log, enter the `show controller fia` command and, if the line card was reloaded, the `show context slot slot-number` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%GRP-4-FIRSTLAST: First/Last cell error detected from slot [int].

**Explanation**  A cell has been received with an invalid first or last bit set.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP-4-FROMFABPAR: Parity error detected in from fabric buffer memory. Slot [int].

Explanation A parity error from the fabric buffers has been detected.

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

Error Message
%GRP-3-IFCON: Too many Queued messages, No buffers available

Explanation Too many messages are coming from the Internet router line card. There are no more buffers on the RP to handle these messages.

Recommended Action Try shutting down debugging messages on the line card or reloading it. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%GRP-3-LC_CARD_TYPE_INVALID: Linecard has invalid card type [hex]

Explanation The line card type is invalid. The line card EEPROM is programmed with an invalid card type.

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

Error Message
%GRP-3-LC_FLASH_PROG_FAIL: Slot [dec] failed program flash with [chars]

Explanation The line card could not be programmed and may be defective.

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

Error Message
%GRP-3-LC_POST_ALLOC: Failed buffer allocation for [chars]

Explanation A data structure could not be allocated to contain contents of the given line card POST file. There may be insufficient DRAM.

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

%GRP-3-LC_POST_FAIL: Slot [dec] fail download

Explanation  The download of the GLC POST has failed for the given slot. The line card could be disabled, or an error could have occurred on the line card during the attempt to download the GLC POST.

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

Error Message

%GRP-3-LDFAIL: Unable to download ucode from [chars] in slot [hex] (bitmask), trying [chars] ucode

Explanation  For some reason, the line card image specified by the configuration is not suitable for downloading, or another error has occurred. The line card image that is bundled within the GRP system image will be loaded.

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

Error Message

%GRP-3-MEMSIZE: Non oct-byte access to fabric buffers.

Explanation  An illegal access has been made to fabric buffers. This usually indicates a software error.

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

Error Message

%GRP-3-MODULE: Missing [chars] for [chars]

Explanation  A hardware or software error has occurred.

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

Error Message

%GRP-3-MSGTOOBIG: Datagram size too large ([int])

Explanation  An attempt to send a packet over the fabric has failed because the packet was too big. This problem usually indicates a software error.

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

%GRP-3-NOFILE: Ucode file [chars] not found, system ucode loaded in slot [hex] (bitmask).

Explanation  The file specified by the configuration was not found in Flash memory. The slot number represents a bit mask of the cards affected. The line card image that is bundled within the GRP system image will be loaded.

Recommended Action  Use the `show flash` command to determine if the file is located in Flash memory. If the file is there, attempt to reload the microcode. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%GRP-4-NO_INTF: CSAR: No interface available Slot [int] Chan [int]

Explanation  The CSAR has received packet with an invalid interface.

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

Error Message

%GRP-3-NOMAC: Can’t allocate MAC address for interface [int]/[int]

Explanation  No MAC address was available for allocation to the specified interface.

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

Error Message

%GRP-4-OLDVERSION: Running old version of GRP

Explanation  The system software detected an old version of the GRP.

Recommended Action  The GRP needs to be upgraded in order to run with this software.

Error Message

%GRP-3-PARITYERR: Parity error detected in the fabric buffers. Data ([hex])

Explanation  A parity error has been detected by the fabric interface hardware on the RP. The hex number indicates the error interrupt vector. This message usually indicates a hardware problem on the RP.

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

%GRP-3-POST_CODE_FILE: Error reading [chars], post.ucode is required in slot0 for upgrade

Explanation The software could not read the given binary LC POST code, possibly because it has not found the post.ucode in the PCMCIA card.

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

Error Message

%GRP-4-Q_CORRUPT: CSAR: HoldQ Count is corrupted

Explanation The CSAR Queue indicates a packet even though none is available.

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

Error Message

%GRP-3-QFULLPAR: Parity error detected.

Explanation A parity error was detected between the CSAR and the FIA on the “queue full” signals. The parity error usually indicates a hardware error.

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

Error Message

%GRP-4-REASSEMBLY: Reassembly error detected. Slot = [int]. State = [int], Status = [int].

Explanation There has been an error in reassembling a buffer over the fabric. The message indicates the slot in which the errored packet was received and describes the state of the reassembly. The status of the packet can be decoded as follows: 00 = middle buffer, 01 = last buffer, 10 = first buffer, 11 = only buffer.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP-3-RESET_CARD: Card [int] has reset too many times.

Explanation The line card specified in the error message has automatically reset itself too many times in attempts to overcome an error condition. It will attempt a reload again after ten minutes have elapsed. This probably indicates that the card is either incorrectly installed, incorrectly configured, or experiencing a hardware failure.

Recommended Action Check the configuration and cabling for errors. The line card can be reloaded manually using the `microcode reload` command. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%GRP-3-RESTART: [chars]

Explanation The SDRAM buffer memory was reset and reallocated. If this message did not appear as result of using an operator-issued command (for example, after the MTU was changed on an interface), then it may indicate an internal software error.

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

Error Message
%GRP-4-RXFAB: From fabric buffers are out of order with software. Index = [int], Expected = [int], Received = [int].

Explanation The fabric driver software is not synchronized with the fabric hardware.

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

Error Message
%GRP-4-SEQUENCE: Sequence error detected from slot [int]. Expected [int]

Explanation A cell with an incorrect sequence number has been received.

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

Error Message
%GRP-3-TYPE: Unknown link type [int] int [int]/[int]

Explanation A packet was received on an interface that had an unknown link type. This message most likely indicates that there is a software problem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP-3-UCODEFAIL: [chars] [int]

Explanation  The image that was downloaded to the line card has been rejected by the line card.

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

Error Message
%GRP-3-UCODETIMEOUT: [chars] ([int])

Explanation  The line card did not acknowledge the download of the image.

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

Error Message
%GRP-3-UNDEF_HDR: Slot [int]:[hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

Explanation  A packet has been received from the fabric, but there was a problem in the header. The data that appear are the first bytes from the buffer header and the payload.

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

Error Message
%GRP-4-UNEXPBUFFER: Unexpected buffer finished sending to fabric ([int]).

Explanation  A send to fabric buffer completed sending, however, the software was not expecting this buffer to be completed.

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

Error Message
%GRP-3-UNEXPINT: [chars] [hex]

Explanation  An unexpected interrupt has occurred from the specified device on the GRP. The device that caused the interrupt is given in the error message output.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
GRPGE Messages

The following are Gigabit Ethernet Route Processor (RP) driver error messages.

Error Message
\%GRPGE-3-CMDERR: Interface ([chars]): [chars] IPC command fails (cause: [hex])

Explanation The Gigabit Ethernet RP driver has experienced an IPC command error.

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

Error Message
\%GRPGE-3-EVENT: Interface ([chars]): unknown IPC event ([int]) from linecard

Explanation The Gigabit Ethernet RP driver has received an unknown event from the line card.

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

Error Message
\%GRPGE-3-INIT: Gigabit Ethernet driver ([int]/[int]) initialization [chars].

Explanation The Gigabit Ethernet RP driver has experienced software initialization error.

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

Error Message
\%GRPGE-4-MSGVERSION: Incompatible message version with slot [dec]

Explanation The message version being sent by the line card does not match the message version used by the GR. This type of incompatibility can happen if the GRP and the line card are using different Cisco IOS versions, and a GRP OIR event. The only problem caused by this condition is that POS statistics are not being reported to the GRP.

Recommended Action Reload the microcode.

Error Message
\%GRPGE-4-NULLCEFIDB: Interface ([chars])

Explanation This interface does not have CEF IDB by mistake.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**
%GRPGE-3-OP: Interface ([chars]): [chars]

**Explanation** The Gigabit Ethernet RP driver has received an unexpected event.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show gsr` and `show ipc status` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gsr` and `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**
%GRPGE-6-SH_CAM_FULL: Failed to add address [enet] to full [dec] entry shadow CAM

**Explanation** An attempt to add an entry to the CAM MAC address filter has failed.

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

**Error Message**
%GRPGE-4-UNSUP: Interface ([chars]): unsupported feature: [chars]

**Explanation** This feature is not supported by the Internet router Gigabit Ethernet RP.

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

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**GRP_OC12_CH_DS3 Messages**

The following are gigabit route processor (GRP) driver error messages.

**Error Message**
%GRP_OC12_CH_DS3-1-ALLOCFAIL: OC12 [dec]/[dec][chars] allocation failure

**Explanation** An OC12-channelized-to-DS3 controller or a channel memory allocation failure has occurred.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GRP_OC12_CH_DS3-5-BERT: Interface [chars], BERT [chars]

Explanation The OC12-CH-DS3 driver has received and processed a BERT completion event.

Recommended Action This message appears whenever the notification for a BERT completion event is received. No action is required.

Error Message
%GRP_OC12_CH_DS3-3-CORRUPT: Corrupt configuration, unsupported [chars] ([int]) encountered

Explanation The OC12-CH-DS3 RP driver running configuration is corrupt.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show gsr` and `show ipc status` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gsr` and `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%GRP_OC12_CH_DS3-5-FAREND: Interface [chars] [chars] far end request of type ([chars])

Explanation The OC12-CH-DS3 driver received and processed a known far-end request.

Recommended Action No action is required.

Error Message
%GRP_OC12_CH_DS3-1-MIA: OC12 [dec]/[dec] LC removed during initialization

Explanation An OC12-channelized-to-DS3 LC was removed during the initialization.

Recommended Action If OC12-channelized-to-DS3 functionality is desired, replace the LC.

Error Message
%GRP_OC12_CH_DS3-4-MSGVERSION: Incompatible message version with slot [dec]

Explanation The message version being sent by the line card does not match the message version being used by the GRP. This type of incompatibility can happen if the GRP and the line card are using different Cisco IOS software versions as a result of a GRP OIR event. The only problem caused by this condition is that POS statistics are not being reported to the GRP.

Recommended Action Reload the microcode.
Error Message
%GRP_OC12_CH_DS3-3-OP: Interface ([chars]): [chars]

Explanation The OC12-CH-DS3 RP driver has received an unexpected event.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show gsr` and `show ipc status` commands to gather data that may help identify nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gsr` and `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%GRP_OC12_CH_DS3-3-TIMEOUT: Interface ([chars]): [chars]

Explanation The OC12-CH-DS3 RP driver queried the LC for SONET information, and the LC did not reply.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show gsr`, `show ipc nodes`, `show ipc ports`, and `show ipc status` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gsr`, `show ipc nodes`, `show ipc ports`, or `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%GRP_OC12_CH_DS3-3-UNKNOWN_FAREND: Interface [chars] received an unknown far end request ([int])

Explanation The OC12-CH-DS3 RP driver has received an unknown far-end request.

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

GRPPOS Messages

The following are packet-over-SONET (POS) route processor error messages.

Error Message
%GRPPOS-4-MSGVERSION: Incompatible message version with slot [dec]

Explanation The message version being sent by the line card does not match the message version being used by the GRP. This type of incompatibility could happen if the GRP and line card are using different Cisco IOS versions as a result of a GRP OIR event. The only problem caused by this condition is that POS statistics are not being reported to the GRP.

Recommended Action Reload the microcode.
Error Message

%GRPPOS-3-OP: Interface ([chars]): [chars]

Explanation The POS RP driver has received an unexpected event.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show gsr` and `show ipc status` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gsr` and `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%GRPPOS-3-TIMEOUT: Interface ([chars]): [chars]

Explanation The POS RP driver queried the line card for SONET information, but the line card did not reply.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show gsr`, `show ipc nodes`, `show ipc ports`, and `show ipc status` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show gsr`, `show ipc nodes`, `show ipc ports`, and `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

GSR_ENV Messages

The following are Internet router environmental monitor error messages.

Error Message

%GSR_ENV-1-CRITICAL: Slot [dec] [chars] [dec] [chars] [chars] [dec] [chars]

Explanation The slot environmental parameters for the specified slot are in the critical range. The card in the slot may be powered down for safety reasons.

Recommended Action The problem must be resolved immediately. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%GSR_ENV-1-CRITICAL_FAN: Slot [dec] [chars] [int] [chars]

Explanation One or more fans are broken or missing. This may cause the chassis to overheat.

Recommended Action Replace bad fan tray.

Error Message

%GSR_ENV-0-POWERDOWN: [chars] in slot [dec]

Explanation The slot has been powered down for safety reasons.

Recommended Action This problem must be resolved before the card is used again. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%GSR_ENV-0-SHUTDOWN: Slot [dec] [chars] [dec] [chars] [chars] [dec] [chars]

Explanation The slot may have been powered down for safety reasons. The card will be powered down after three warnings.

Recommended Action This problem must be resolved before the card is used again. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%GSR_ENV-0-SHUTDOWN_PS: Slot [dec] [chars] [int] [chars]

Explanation The power supply input voltage has failed.

Recommended Action Ensure that the power supply is plugged in and turned on.

Error Message

%GSR_ENV-2-WARNING: Slot [dec] [chars] [dec] [chars] [chars] [dec] [chars]

Explanation The environmental parameters for the specified slot are outside the normal range of operation.

Recommended Action These conditions must be resolved immediately. Correct the warning condition specified. For example, for temperature warnings, verify that adequate cooling is available, and that the empty slots have blank covers. For voltage warnings, check the appropriate power supply.
GSRIPC Messages

The following are Internet router interprocess communication (IPC) service routines error messages.

**Error Message**

%GSRIPC-3-PORT: port ([chars]) already exists

**Explanation** The port to be created already exists.

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

**Error Message**

%GSRIPC-3-REXEC: [chars]

**Explanation** The remote execution open port has failed.

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

**Error Message**

%GSRIPC-3-SYSCALL: For port ([chars]): [chars] fails (cause: [chars])

**Explanation** The IPC kernel system call has failed.

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

GT64010 Messages

The following are GT64010 DMA controller driver error messages.

**Error Message**

%GT64010-3-DMA: Interrupt error, c=[hex], m=[hex], rc=[hex]

**Explanation** An unexpected interrupt has been registered from a DMA engine that was not initialized by the software.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%GT64010-1-DMASTALL: DMA interrupt stalled, restarted engine [dec]

Explanation The driver timed out while waiting for completion of a DMA task. The DMA engine has been restarted.

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

Error Message
%GT64010-3-NOCHANNEL: Referencing unused DMA channel [dec]

Explanation An access to an uninitialized DMA engine has been attempted.

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

Error Message
%GT64010-3-TIMER: Interrupt error, c=[hex], m=[hex], rc=[hex]

Explanation An unexpected timer interrupt was received from a timer element that had not been initialized by the software.

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

Error Message
%GT64010-3-TIMERINSTALL: Attempt to install already installed timer [dec]

Explanation An attempt was made to initialize a timer element that is already in use.

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

GTP Messages

The following are General Packet Radio Service (GPRS) Tunnel Protocol error messages.

Error Message
%GTP-2-GSNSERVICEUPDOWN: GSN service [chars] changed state to [chars]

Explanation The SGSN service has started or has been shutdown.

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

%GTP-2-PDPACTIVATIONFAIL: GTP PDP activation/update failed, GSN: [IP_address], TID: [hex][hex], Reason: [chars]

**Explanation**
A PDP context activation has failed.

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

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**HAWKEYE Messages**

The following are Token Ring protocol control information (PCI) port adapter error messages.

**Error Message**

%HAWKEYE-3-ADPCHK: Interface [chars], adapter check error

**Explanation**
The Token Ring interface has encountered an unrecoverable error condition while it was operating and connected to the ring. The interface will automatically shut itself down.

**Recommended Action**
Issue the `clear interface token` command to restart the interface. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%HAWKEYE-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

**Explanation**
The Token Ring device driver was unable to communicate with all of the interfaces expected to be on the port adapter module. This condition could indicate that one or more of the interfaces is not functioning. This message may occur during Cisco IOS software initialization or after an OIR of a Token Ring port adapter or module.

**Recommended Action**
Reseat the port adapter or module in the slot. If necessary, install it in another slot. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%HAWKEYE-3-INITFAIL: [chars] failed to initialize - [chars]

**Explanation**
The Token Ring interface has encountered an error while attempting to open a connection to the ring. The specific error that occurred is described in the last half of the error message as one of the following:

- microcode checksum failed—The MAC microcode is corrupted inside the local memory of the interface.
- failed to build receive descriptor ring—There was not enough system memory available to allocate receive buffers for packets.
init failed — The interface hardware has rejected the request from the device driver request to configure and open the interface.

**Recommended Action** Reset the interface using the clear interface token command in EXEC mode. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%HAWKEYE-3-MAC_CMD_Q_OVERFLOW: HAWKEYE ([dec]/[dec]), MAC command queue overflow

**Explanation** The command queue of the specified interface was full when the device driver attempted to send a command to the interface hardware. This condition may occur if the device driver software sends commands faster than the interface hardware can process them. This condition is usually not a critical error, and the interface should continue to function normally. However, if the error message appears repeatedly, it may indicate a more serious problem.

**Recommended Action** If this error appears repeatedly, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Otherwise, no action is required.

**Error Message**

%HAWKEYE-1-NOPCIMEMORY: PCI memory unavailable for [chars]

**Explanation** The device driver for the specified interface was unable to allocate the necessary amount of shared memory between the driver and the interface hardware. This condition can occur if the system contains less than the recommended minimum amount of SRAM for the current interface combination. Since shared memory blocks are required for the interface to function, the specified interface will be inoperable until the memory shortage is corrected.

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

**Error Message**

%HAWKEYE-1-OLDREV: HAWKEYE(bay [dec]), Port adapter requires Rev 2 CPU, shutting down bay

**Explanation** The device driver has detected an NPE150 CPU version earlier than Revision 2. The Token Ring device driver requires capabilities of an NPE150 Revision 2 or later CPU. This message is specific to Cisco 7200 series routers.

**Recommended Action** Upgrade the Cisco 7200 router processor to an NPE150 Revision 2 or later.
HD Messages

The following are HD64570 serial controller error messages.

Error Message
%HD-1-BADLOOPCABLE: Loopback not supported for a 4T DTE/X.21, port [dec] in slot [dec]

Explanation  Loopback mode is not allowed when using an X.21 DTE cable on a Quad serial NIM port.

Recommended Action  Do not enable loopback mode, or use a different cable type.

Error Message
%HD-1-BADPORTADAPTER: 4T Port Adapter fault on port [dec] in slot [dec]

Explanation  A hardware or software error has occurred.

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

Error Message
%HD-1-BADRING: Bad [chars] ring size

Explanation  An internal software error has occurred.

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

Error Message
%HD-5-LINEFLAP: Unit [dec] excessive modem control changes

Explanation  Too many modem control interrupts have been received. The port was disabled to prevent excessive use of the CPU.

Recommended Action  Check the cable on the serial port.
HDV Messages

The following are High Density Voice (HDV) error messages.

**Error Message**

%HDV-3-DISCOVER: HDV in slot [dec]: the HDV failed to initialize properly.

**Explanation**  An initialization action has failed for the HDV. This failure can be caused by a lack of system resources, a missing VIC, an improper VIC installed in the port module, or defective HDV hardware.

**Recommended Action**  Power down the router. Check that a supported VIC is properly installed in the HDV port module. Reinsert the VIC, and then reinsert the port module and reboot the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%HDV-2-FATAL_ERROR: HDV in slot [dec]: An unrecoverable error occurred.

**Explanation**  The HDV card has experienced an internal unrecoverable error. This error may be caused by an internal firmware error or defective HDV hardware.

**Recommended Action**  Power down, reinsert the network module, and reboot the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%HDV-3-FW_START: HDV in slot [dec]: the firmware on the port module did start properly.

**Explanation**  The firmware on the card did not start after a reset. This condition is usually caused by a defective HDV module or improperly seated HDV module.

**Recommended Action**  Power down, reinsert the HDV port module, and reboot the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%HDV-3-HW_START: HDV in slot [dec]: the port module did not reset and start up properly.

**Explanation**  The hardware on the card did not start after a reset. This condition is usually caused by a defective HDV module or improperly seated HDV module.

**Recommended Action**  Power down, reinsert the HDV port module, and reboot the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%HDV-3-INCORRECT_PMID: HDV in slot [dec]: Incorrect [dec] PM-ID device not supported.

Explanation An interface controller device did not have the correct port module ID.

Recommended Action Ensure that the HDV port module is inserted properly. If necessary, power down the router and reinsert the HDV port module. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%HDV-3-INVALID_PCI_ID: HDV in slot [dec]: reports an invalid device id of [hex].

Explanation The HDV port module hardware may be defective or improperly seated.

Recommended Action Power down, reinsert the network module, and reboot the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%HDV-1-NO_DAUGHTER_CARD: HDV in slot [dec]: no VIC card is inserted in the HDV.

Explanation The software did not detect the presence of a VIC inserted in the HDV port module.

Recommended Action Check that there is a VIC inserted properly into the HDV. If the VIC is inserted properly, check the part number on the VIC to see if it is supported by the version of Cisco IOS software that running on the router. For further assistance, contact your Cisco technical support representative.

Error Message
%HDV-1-NOPCIMEMORY: HDV in slot [dec]: No PCI memory available.

Explanation The system has exhausted its memory in the PCI or packet memory. This condition is probably due to heavy traffic congestion but could also indicate a software error.

Recommended Action Review the system configuration for performance bottlenecks. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%HDV-1-TOOBIG: HDV in slot [dec]: packet size ([dec]) too big.

Explanation A packet greater than the 256-byte maximum has been received on this interface.

Recommended Action The system should recover. No action is required. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%HDX-3-BADFSM: On int [dec]/[dec], unexpected state [dec], event [dec]

Explanation  An invalid state or event pair has been detected in the Rx and Tx half-duplex state machine.

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

HEARTBEAT Messages

The following are “Heartbeat” error messages.

Error Message
%HEARTBEAT-6-NOT_HEARD: Heartbeat messages have not been heard for [dec] seconds

Explanation  Heartbeat messages have not been received for the time specified in the error message. If heartbeat messages are not received soon, a timeout, which will reset the system, is likely to occur.

Recommended Action  No action is required.
HMM_ASYNC Messages

The following are hex modem network module asynchronous driver error messages.

Error Message
%HMM_ASYNC-3-CARD_FAILED_DOWNLOAD: Unable to download firmware image to digital modem card in slot [dec].

Explanation An attempt to bring up the processor on the digital modem card has failed.

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

Error Message
%HMM_ASYNC-3-HMM_HARDWARE_EXCEPTION: HMM: Digital Modem Card [dec] hardware exception : [chars]

Explanation An intermittent or permanent hardware failure may have occurred.

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

Error Message
%HMM_ASYNC-3-MODEM_FAILED_DIAGS: Digital modem [dec]/[dec] on Simm [dec] failed power on diagnostics.

Explanation The digital modem has failed to pass power on diagnostics and will not be used.

Recommended Action If the remaining SIMMs passed the diagnostics, remove or replace the defective SIMM before continuing. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%HMM_ASYNC-3-MODEM_MAILBOX_IS_FULL: HMM Modem [dec]/[dec] Mailbox is Full, command [hex] not sent.

Explanation An error has occurred during an attempt to deliver commands to the modem module. This failure may be temporary. If this message repeats every 30 seconds, it may indicate a failed modem module.

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

Error Message

%HMM_ASYNC-3-MODEM_STOPPED_PROCESSING_MAIL: HMM Modem [dec]/[dec] failed to accept a new command.

Explanation The modem has failed to accept a new command. This failure may be temporary, or the modem may remain unusable until a system reset has been performed.

Recommended Action Reset the modem by issuing the clear modem command. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%HMM_ASYNC-3-NOMEMORY: No memory for [chars] of unit [dec]

Explanation The router does not have enough memory to perform the requested function.

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

Error Message

%HMM_ASYNC-4-NO_MODEMS_PRESENT: HMM Digital Modem Card [dec] contains no active modems.

Explanation There are no modems installed on the network module.

Recommended Action Ensure that the network module contains properly installed MICA-6DM SIMMs.

Error Message

%HMM_ASYNC-3-NORAWRXPOOL: Unable to create pool for [dec] raw Rx mode buffers

Explanation The router does not have enough I/O memory for the buffers.

Recommended Action Consider adding more shared memory. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%HMM_ASYNC-3-NORAWTXPOOL: Unable to create pool [dec] raw Tx mode buffers

Explanation  The router does not have enough I/O memory for the buffers.

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

Error Message
%HMM_ASYNC-3-NOTTYCREATE: Unable to create TTY structure for line [dec]

Explanation  The system was unable to create a tty line control block for the specified line. This condition may have occurred because there is not enough memory in the router.

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

Error Message
%HMM_ASYNC-3-SIMM_FAILED_DOWNLOAD: Unable to download modem firmware image to Simm [dec] in slot [dec].

Explanation  The modem firmware has failed to load into the SIMM.

Recommended Action  If the firmware has successfully loaded into remaining SIMMs, remove or replace the defective SIMM before continuing. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%HMM_ASYNC-3-SIMM_RUNTIME_ERROR: Simm [dec] in slot [dec] has halted due to a Runtime Error.

Explanation  The portware running on the SIMM was halted because of a runtime error. The six modems contained on the SIMM have been marked “bad” and are no longer usable until the system is reloaded.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log along with the output of the show modem and show modem log commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

Explanation  The digital modem card has failed to send or receive PCM data in time to avoid data loss. This condition may cause the modems to speed shift, retrain, or hang up.

Recommended Action  Verify that the DS1 interfaces share a common clock source. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
HOOD Messages

Error Message
%HMM_ASYNC-3-UNKNOWN_MESSAGE: Received unknown message [hex] at mail offset [dec] from modem [dec]/[dec].

Explanation  An unidentified message has been received from the modem. This condition is a symptom of running an incompatible version of modem firmware.

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

Error Message
%HMM_ASYNC-3-UNKNOWNPLATFORM: Unknown Platform type to support HMM Network Module

Explanation  The network module is not compatible with the current platform into which it is plugged.

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

HOOD Messages

The following are LAN controller 100VG-AnyLAN interface error messages.

Error Message
%HOOD-3-BADUNIT: Bad unit number [dec]

Explanation  An internal software error has occurred.

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

Error Message
%HOOD-5-CABLEERR: Unit [dec], HP100VG, cable error. Training failed

Explanation  A 100VG cable or hub is faulty.

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

Error Message
%HOOD-5-COLL: Unit [dec], excessive collisions

Explanation  An Ethernet cable is broken or unterminated, or the transceiver is unplugged.

Recommended Action  If the transceiver appears to be properly terminated, repair or replace the router.
HP100VG Messages

Error Message
%HOOD-5-LOSTCARR: Unit [dec], lost carrier. Transceiver problem?

Explanation  An Ethernet transceiver is unplugged or defective.

Recommended Action  Repair or replace the controller.

Error Message
%HOOD-5-NOCABLE: Unit [dec], HP100VG, no tone detected. Check cable, hub

Explanation  A 100VG cable is defective.

Recommended Action  If this message recurs and either the cable or the hub appears to function, repair or replace the router module.

HP100VG Messages

The following are 100VG-AnyLAN port adapter driver error messages.

Error Message
%HP100VG-1-ACCESS: [chars] access to network denied

Explanation  Access to the network is denied because of an incompatible configuration.

Recommended Action  Check the configuration of the hub for Frame Format, Promiscuous, and Repeater bit to indicate proper configuration.

Error Message
%HP100VG-5-CABLEERR: [chars] training failed

Explanation  A 100VG cable or hub is faulty.

Recommended Action  Repair or replace the cable or hub. If either the cable or the hub appear to function, repair or replace the VG PA interface module.

Error Message
%HP100VG-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation  No VG interface was detected.

Recommended Action  Ensure that the 100VG PA is properly seated in the slot. Otherwise, repair or replace the 100VG PA interface module.
Error Message
%HP100VG-1-DUPMAC: On [chars] LAN segment

Explanation Two VG devices on the same LAN segment have the same MAC address.

Recommended Action Check the router configuration to ensure that no duplicate MAC address is configured.

Error Message
%HP100VG-1-LANCNF: [chars] configuration not compatible with the network

Explanation The configuration of the router module is not compatible with the network.

Recommended Action Check the configuration of the hub for Frame Format, Promiscuous, and Repeater bit to indicate proper configuration.

Error Message
%HP100VG-5-LOSTCARR: [chars] cable/hub problem?

Explanation The VG controller has detected that a link to the hub is down because of a cable, hub or VG controller problem.

Recommended Action Repair or replace the cable or hub. If either the cable or the hub appear to be functioning, repair or replace the VG PA interface module.

Error Message
%HP100VG-5-NOCABLE: [chars] cable fault; tone not detected

Explanation A 100VG cable is faulty.

Recommended Action Repair or replace the cable. If the cable appears to be functioning, repair or replace the VG PA interface module.

Error Message
%HP100VG-3-NOCAM: [chars] hardware CAM device not found

Explanation The hardware CAM could not be found on the PA module.

Recommended Action Repair or replace the 100VG PA interface module.

Error Message
%HP100VG-3-NOTHPI00VG: Bay [dec] device ID seen as [hex], expected [hex]

Explanation The 100VG PCI device could not be found.

Recommended Action Ensure that the 100VG PA device is properly seated in the slot. Otherwise, repair or replace the 100VG PA interface module.
**Error Message**

%HP100VG-3-OWNERR: [chars] packet buffer, pak=[hex]

**Explanation** A software or hardware error has occurred. The HP100VG driver detected that the buffer ring is in an inconsistent and unrecoverable state.

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

**Error Message**

%HP100VG-1-TRAINFAIL: [chars] unable to login to the hub

**Explanation** An attempt to log in to the hub has failed.

**Recommended Action** Take action based on the error messages that follow this message.

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**HTSP Messages**

The following are analog voice hardware adaptation layer software error messages.

**Error Message**

%HTSP-3-CAPABILITYMISMATCH: voice port [chars]: call connection id [[hex] [hex] [hex] [hex]]

**Explanation** The capabilities between the two call legs did not match. The capabilities are negotiated between call legs for codec, VAD, and fax rates.

**Recommended Action** Check that the dial peer configuration is appropriate for the interface in question. Also check that the configuration on the interface is correct.

**Error Message**

%HTSP-3-DSPALARM: voice port [chars]: status=[hex] message=[hex] text=[chars]

**Explanation** The DSP has reported a fatal error. All calls on the DSP were dropped, and a DSP reload was attempted.

**Recommended Action** Verify that the DSP reloaded properly by attempting to place a call on the specified voice port. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%HTSP-3-NOEVENT: no free event structure available from [chars] for DSP message

**Explanation** No event structures were remaining in the system pools to alert the router of a voice or signaling event.

**Recommended Action** Check that the voice port for which the event was reported is still operational. If it is not still operational, clear the voice port.
**Error Message**

%HTSP-3-TRUNKNOTSUPPORTED: voice port [chars]: Ground Start trunking not supported

**Explanation**  
The specified voice port does not support the **connection trunk** command when ground start signaling is configured. Trunking mode on this voice is supported when loop-start signaling is used.

**Recommended Action**  
Shut down the voice port, remove the **connection trunk** or **signal ground-start** command from the voice port configuration, and restart (unshut) the voice port.

---

**Error Message**

%HTSP-5-UPDOWN: Trunk port(channel) [[chars]] is [chars]

**Explanation**  
The trunk port:channel has changed state.

**Recommended Action**  
No action is required.

---

**HUB Messages**

The following are Cisco Ethernet hub error messages.

**Error Message**

%HUB-1-BADHUB: Invalid hub type [dec] and number [dec]

**Explanation**  
An internal software error has occurred.

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

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**Error Message**

%HUB-1-BADUNIT: Bad port number [dec]

**Explanation**  
An internal software error has occurred.

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

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**Error Message**

%HUB-1-NOMEMORY: Unit [dec], no memory for [chars]

**Explanation**  
The system has detected that there is not enough memory for the hub initialization.

**Recommended Action**  
Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%HUB-1-READERR: Read op [dec] not allowed

Explanation  An internal software error has occurred.

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

Error Message
%HUB-1-WRITEERR: Write op [dec] not allowed

Explanation  An internal software error has occurred.

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

HW_VPN Messages

The following are Encryption Advanced Interface Module (EAIM) error messages. EAIM is a hardware accelerator for IPSec encryption services.

Error Message
%HW_VPN-1-BADMEMSIZE: [chars]: Invalid Amount of RAM for PA ID, memsize = [hex]

Explanation  The POST has reported an incorrect memory size.

Recommended Action  Replace the EAIM.

Error Message
%HW_VPN-1-BADTYPE: This Encryption AIM type not supported on this router platform

Explanation  An EAIM that is not supported on this router platform has been installed. Different EAIMs are supported by each router platform.

Recommended Action  Remove the EAIM and install an EAIM that is compatible with this router.

Error Message
%HW_VPN-1-BUSY: Encryption AIM busy

Explanation  The EAIM cannot perform the requested command because it is busy executing another command.

Recommended Action  Wait until the current command has completed. If the current command does not complete in a reasonable amount of time, the EAIM is defective. Replace the EAIM.
Error Message
%HW_VPN-1-CMDERR: [chars]: Command [hex] failed with status [hex]

Explanation  The EAIM has responded that the current requested command contains an error, and the command has failed. The details of the failure depend upon the circumstances, but it is likely that the EAIM is defective and should be replaced.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. The EAIM will most likely need to be replaced.

Error Message
%HW_VPN-1-CMDTIMEOUT: [chars]: Timeout on reply to command to Encryption AIM

Explanation  The EAIM has not responded to the current requested command in a reasonable amount of time. The EAIM is faulty and should be replaced.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. The EAIM will most likely need to be replaced.

Error Message
%HW_VPN-1-DEVID: EAIM: Invalid PCI device ID: [int]

Explanation  The identity of the EAIM device on the router bus is invalid.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. The EAIM will need to be replaced.

Error Message
%HW_VPN-1-DEVINIT: EAIM: Device Initialization failure

Explanation  The EAIM has failed to respond properly to an initialization attempt.

Recommended Action  Replace the EAIM.

Error Message
%HW_VPN-6-DISABLED: [chars]: disabled

Explanation  The EAIM has been disabled.

Recommended Action  Replace the EAIM.
Error Message
%HW_VPN-1-ELMERREV: AIM in slot [int] not supported by this HW revision.

Explanation The revision level of the C2600 PLD does not support EAIM. The PLD needs to be upgraded to a later version of software.

Recommended Action Upgrade the PLD software to a later version that supports EAIM.

Error Message
%HW_VPN-1-HELLOERR: [chars]: EAIM responded incorrectly to hello: received [hex] expected [hex]

Explanation The EAIM should have echoed back the data that was sent to it via a command. Instead of receiving the expected data, the data that is specified in the error message text was received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. The EAIM will most likely need to be replaced.

Error Message
%HW_VPN-1-HPRXERR: [chars]: Packet Encryption/Decryption error, status=[int]

Explanation An unexpected error occurred during the encryption or decryption of a packet.

Recommended Action This message may occur during the normal operation of the system, or it may occur during the transition to a new session key for a security association. In such cases, it may be ignored. However, if it happens frequently, or is associated with traffic disruption, make a note of the status value and contact your Cisco technical support representative. The EAIM will most likely need to be replaced.

Error Message
%HW_VPN-1-INITFAIL: EAIM: Initialization failed at [chars]

Explanation The EAIM device did not reset properly. This condition is indicative of a hardware failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. The EAIM will need to be replaced.

Error Message
%HW_VPN-1-LPRXERR: [chars]: Key management error, cmd=[hex] status=[hex]

Explanation An unexpected error has occurred during the execution of a key management command by the EAIM.

Recommended Action Make a note of the status value and contact your Cisco technical support representative. The EAIM will most likely need to be replaced.
Error Message
%HW_VPN-6-MULTDEV: Cannot support more than one Encryption AIMs

Explanation A second EAIM was discovered in the system. The Encryption AIM software supports only a single EAIM. All other EAIMs installed will be ignored.

Recommended Action Remove one of the EAIMs that is installed in your system.

Error Message
%HW_VPN-1-NOHW: Encryption AIM not present in system

Explanation The user entered a command that involves an EAIM, but no EAIM is present in the system.

Recommended Action Do not enter EAIM commands unless an EAIM is present. If an EAIM is installed, replace the EAIM.

Error Message
%HW_VPN-1-POSTFAIL: [chars]: Power On Self Test failed, alert status = [hex]

Explanation The POST for the EAIM has failed.

Recommended Action Replace the EAIM.

Error Message
%HW_VPN-6-STARTUP: [chars]: starting up

Explanation The specified EAIM has initialized successfully.

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

Error Message
%HW_VPN-1-UNEXPCMD: [chars]: Invalid command reply: expected [hex] received 0x[chars]

Explanation A command was sent to the EAIM, and its replay contained an unexpected reply code. The details of the failure depend upon the circumstances, but in all likelihood the Encryption AIM is faulty and should be replaced.

Recommended Action Make a note of the error message and contact your Cisco technical support representative. The EAIM will most likely need to be replaced.
I82543 Messages

The following are Intel 82543 Ethernet/Fast Ethernet/Gigabit Ethernet controller error messages.

Error Message
%I82543-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation A possible hardware error has occurred that resulted in too few GE interfaces being discovered.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%I82543-3-ERRINT: [chars], error interrupt, csr_STATUS=[hex]

Explanation The Intel 82543 controller has signaled an error condition.

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

Error Message
%I82543-1-INITFAIL_NOMEM: [chars], initialization failed, no buffer memory

Explanation The Ethernet port initialization has failed because of insufficient memory.

Recommended Action Upgrade the affected PA with a larger memory model. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%I82543-5-LOSTCARR: [chars] cable/transceiver problem?

Explanation The Ethernet port has detected a link failure. The Ethernet port is no longer receiving signals from the LAN. This condition can be caused by disconnected Ethernet cabling, a transceiver (GBIC) failure, or a remote end that has been shut down.

Recommended Action Check your Ethernet wiring and port adapter. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
IBM2692 Messages

The following are IBM Token Ring chipset error messages.

Error Message
%IBM2692-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation One of the interface controller devices on the module did not initialize properly.

Recommended Action Power down, reinsert the network module, and reboot the system. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IBM2692-1-LL_QUEUE_OVERFLOW: IBM2692 ([dec]/[dec]), LL queue overflow.

Explanation A packet buffer queue has overflowed and a packet was lost, probably because of traffic congestion.

Recommended Action A small number of queue overflows might not be a cause for concern. Reducing the load on the router or installing a higher performance router should alleviate queue overflows.
Error Message
%IBM2692-1-NOPCIMEMORY: [chars] [chars] creation failed

**Explanation** The router or access server could not allocate memory for the specified descriptors.

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

Error Message
%IBM2692-1-OLDREV: Bay [dec] port adapter requires Rev 2 CPU

**Explanation** The Token Ring PCI Port Adapter driver depends on the capabilities of the Revision 2 processor.

**Recommended Action** Upgrade the processor to Revision 2.

Error Message
%IBM2692-1-SRBQ_OVERFLOW: Queue size on [chars] exceeded [dec]

**Explanation** The maximum number of commands that can be queued to the Token Ring port has been exceeded. Normally, such a problem is temporary, depending on transient peak loads within the system.

**Recommended Action** The system should recover. No action is required.

**ICC Messages**

The following are Inter-Card Communication (ICC) error messages.

Error Message
%ICC-4-COMM: Communication failure occurred while [chars]

**Explanation** A communication failure has occurred between the specified card and another card in the system.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%ICC-4-CONSISTENCY: Internal consistency check: [chars]

Explanation   An internal inconsistency was found in some ICC data structures.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ICC-4-HEARTBEAT: Card [dec] failed to respond to heartbeat

Explanation   A communication failure between the primary and the specified line card has occurred.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ICC-2-NOMEM: No memory available for [chars]

Explanation   The ICC subsystem could not obtain sufficient memory.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

IDMGR Messages

The following are ID manager error messages.

Error Message

%IDMGR-3-INTERRUPT: [chars]

Explanation   A id_get operation has been attempted at the interrupt level.

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

The following are IP datagram subsystem (IDS) error messages.

Error Message
%IDMGR-3-INVALID_ID: bad id in [chars]

Explanation An ID manager error has occurred.

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

Error Message
%IDMGR-3-MALLOC_FAILURE: [chars]

Explanation A memory allocation failure has occurred in the ID manager.

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

IDS Messages

The following are IP datagram subsystem (IDS) error messages.

Error Message
%IDS-4-ICMP_ECHO_REPLY_SIG: Sig:2000:ICMP Echo Reply - from [IP_address] to [IP_address]

Explanation An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 0 (Echo Reply). This condition is extremely common as a part of network traffic; however, suspicion should be aroused when a large number of these packets are found on the network.

Recommended Action If no legitimate reason for this traffic can be identified, perform prudent security measures and, if necessary, block the host that sent this datagram.

Error Message
%IDS-4-ICMP_ECHO_SIG: Sig:2004:ICMP Echo Request - from [IP_address] to [IP_address]

Explanation An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 8 (Echo Request). This type of datagram is commonly used to perform reconnaissance sweeps. The ICMP Echo Request is issued by the source to determine if the destination is “alive.” When the destination receives the request, it will reply with an ICMP Echo Reply. This request and reply pair is most commonly implemented via the ping utility. Many network management tools use this utility or some derivative of it, and this condition is extremely common as a part of network traffic. However, suspicion should be aroused when a large number of these packets are found on the network.

Recommended Action If no legitimate reason for this traffic can be identified, perform prudent security measures and, if necessary, block the host that sent this datagram.
Error Message
%IDS-4-ICMP_FRAGMENT_SIG: Sig:2150:Fragmented ICMP Traffic - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and either the more fragments flag set to 1 (ICMP) or an offset has been indicated in the offset field. IP datagrams may be fragmented normally as they are transported across the network, but ICMP is rarely fragmented. The traffic should be investigated.

Recommended Action  If no legitimate reason for the fragmentation can be found and, especially, if the packets seem to be originating from a single source, perform prudent security measures and, if necessary, block the host that sent this datagram.

Error Message
%IDS-4-ICMP_INFO_REPLY_SIG: Sig:2010:ICMP Information Reply - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 16 (ICMP Information Reply). No known exploit exists. This datagram type is obsolete and should not be encountered.

Recommended Action  When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message
%IDS-4-ICMP_INFO_SIG: Sig:2009:ICMP Information Request - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 15 (Information Request). This datagram type is obsolete and should not be encountered.

Recommended Action  When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message
%IDS-4-ICMP_MASK_REPLY_SIG: Sig:2012:ICMP Address Mask Reply - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 18 (Address Mask Reply). No known exploits incorporate this option. The ICMP Address Mask Request and Reply pair can be used to determine the subnet mask used on the network. When the requesting system issues the Address Mask Request bound for a destination, the destination system responds with an Address Mask Reply message. This condition can sometimes be a part of normal network traffic, but is uncommon on most networks. Suspicion should be aroused when a large number of these packets are found on the network.

Recommended Action  If no legitimate reason for the traffic can be found and, especially, if the packets seem to be originating from a single source, perform prudent security measures and, if necessary, block the host that sent this datagram.
**Error Message**

%IDS-4-ICMP_MASK_SIG: Sig:2011:ICMP Address Mask Request - from [IP_address] to [IP_address]

**Explanation** An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 17 (Address Mask Request). ICMP Address Mask Requests could be used to perform reconnaissance sweeps of networks. The ICMP Address Mask Request and Reply pair can be used to determine the subnet mask used on the network. When the requesting system issues the Address Mask Request bound for a destination, the destination system responds with an Address Mask Reply message. This condition can sometimes be a part of normal network traffic, but is uncommon on most networks. Suspicion should be aroused when a large number of these packets are found on the network.

**Recommended Action** If no legitimate reason for the traffic can be found, perform prudent security measures and, if necessary, block the host that sent this datagram.

**Error Message**

%IDS-4-ICMP_PARAMPROB_SIG: Sig:2006:ICMP Parameter Problem on Datagram - from [IP_address] to [IP_address]

**Explanation** An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 12 (Parameter Problem on Datagram). No known exploits incorporate this option. ICMP Parameter Problem datagrams are issued when a router has had to drop a malformed datagram. This condition is a normal and necessary type of network traffic; however, large numbers of this datagram type on the network can be indicative of network difficulties or hostile actions.

**Recommended Action** If no network problems can be identified to account for the traffic, perform prudent security measures and, if necessary, block the host that sent this datagram.

**Error Message**

%IDS-4-ICMP_PING_OF_DEATH_SIG: Sig:2154:ICMP Ping of Death Attack - from [IP_address] to [IP_address]

**Explanation** An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP), the Last Fragment bit is set, and (IP offset * 8) + (IP data length) is greater than 65535. In other words, the IP offset (which represents the starting position of this fragment in the original packet, and which is byte units) plus the rest of the packet is greater than the maximum size for an IP packet. This condition indicates a denial-of-service attack.

**Recommended Action** It is likely that the source address has been spoofed, making it ineffective to block the host that sent this datagram. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%IDS-4-ICMP_REDIRECT_SIG: Sig:2003:ICMP Redirect - from [IP_address] to
[IP_address]

**Explanation** An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 5 (Redirect). The redirect message may be issued from a router to inform a host of a better route to a requested destination. The host then updates its routing table to include this route. This method of updating routing tables is an uncommon practice today.

**Recommended Action** When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

**Error Message**

%IDS-4-ICMP_SOURCEQUENCH_SIG: Sig:2002:ICMP Source Quench - from [IP_address] to [IP_address]

**Explanation** An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 4 (Source Quench). This datagram may be used in network management to provide congestion control. Large numbers of this datagram type on the network are indicative of network difficulties or may be indicative of hostile actions. This datagram may be used in network management to provide congestion control. A source quench packet will be issued when a router is beginning to lose packets due to the transmission rate of a source. The source quench is a request to the source to reduce the rate of datagram transmission. This datagram type is rarely, if ever, seen on networks and some systems do not even support it. Large numbers of this datagram type on the network are indicative of network difficulties or may be indicative of hostile actions.

**Recommended Action** If no network problems can be identified to account for the traffic, perform prudent security measures to block the host that sent this datagram.

**Error Message**

%IDS-4-ICMP_TIME_REPLY_SIG: Sig:2008:ICMP Timestamp Reply - from [IP_address] to
[IP_address]

**Explanation** An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 14 (Timestamp Reply). No known exploits incorporate this option. The ICMP Timestamp Request and Reply pair can be used to synchronize system clocks on the network. The requesting system issues the Timestamp Request bound for a destination, and the destination system responds with a Timestamp Reply message. This condition can sometimes be a part of normal network traffic, but is uncommon on most networks. Suspicion should be aroused when a large number of these packets are found on the network.

**Recommended Action** If no legitimate reason for this traffic can be identified, perform prudent security measures to block the host that sent this datagram.
Error Message
%IDS-4-ICMP_TIME_SIG: Sig:2007:ICMP Timestamp Request - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 13 (Timestamp Request). ICMP Timestamp Requests could be used to perform reconnaissance sweeps of networks. No known exploits incorporate this option. The ICMP Timestamp Request and Reply pair can be used to synchronize system clocks on the network. The requesting system issues the Timestamp Request bound for a destination, and the destination system responds with a Timestamp Reply message. This condition is normal as a part of network traffic, but is uncommon on most networks. Suspicion should be aroused when a large number of these packets are found on the network.

Recommended Action If no legitimate reason for this traffic can be identified, perform prudent security measures to block the host that sent this datagram.

Error Message
%IDS-4-ICMP_TIMXCEED_SIG: Sig:2005:ICMP Time Exceeded for a Datagram - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 11 (Time Exceeded for a Datagram). No known exploits incorporate this option. ICMP Time Exceeded datagrams are issued when a router has had to drop a datagram whose TTL flag has expired. This condition is a normal and necessary type of network traffic. However, large numbers of this datagram type on the network are indicative of network difficulties or may be indicative of hostile actions.

Recommended Action If no network problems can be identified to account for the traffic, perform prudent security measures to block the host that sent this datagram.

Error Message
%IDS-4-ICMP_TOOLARGE_SIG: Sig:2151:Large ICMP Traffic - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with a size greater then 1024 bytes. Although it is possible to receive ICMP datagrams that have a size greater than 1024 bytes, this condition is a highly unusual occurrence that warrants investigation.

Recommended Action If no legitimate reason for the large packet size can be found and, especially, if the packets seem to be originating from a single source, perform prudent security measures to block the host that sent this datagram.
Error Message
%IDS-4-ICMP_UNREACH_SIG: 2001:ICMP Host Unreachable - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field of the IP header set to 1 (ICMP) and the type field in the ICMP header set to 3 (Host Unreachable). This type of datagram is the common response provided to a client when there is no path available to the requested host and is a very common type of network traffic. However, large numbers of this datagram type on the network are indicative of network difficulties or may be indicative of hostile actions.

Recommended Action  If no network problems can be identified to account for the traffic, perform prudent security measures to block the host that sent this datagram.

Error Message
%IDS-4-IPFRAG_ATTACK_SIG: Sig:1100:IP Fragment Attack - from [IP_address] to [IP_address]

Explanation  Any IP datagram has been received with the “more fragments” flag set to 1 or if there is an offset indicated in the offset field.

Recommended Action  IP datagrams may be fragmented normally when they are transported across the network. This condition is common, but is unusual enough that the traffic should be investigated, especially if the network is protected by a packet-filtering firewall.

Error Message
%IDS-4-IP_IMPOSSIBLE_SIG: Sig:1102:Impossible IP Packet - from [IP_address] to [IP_address]

Explanation  An IP packet has arrived with a source address that is the same as the destination address. This message will detect the so-called Land Attack.

Recommended Action  This condition should never occur in legitimate traffic.

Error Message
%IDS-4-IPOPT_LSRR_SIG: Sig:1004:IP options-Loose Source Route - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received in which the IP option list for the datagram includes option 3 (Loose Source Route). This option may be misused to defeat authentication mechanisms that rely on IP addresses as their basis for trust relationships. Although network troubleshooting may require the legitimate use of this feature, this type of traffic is rarely, if ever, noted and should make up much less than 1 percent of network traffic.

Recommended Action  Small amounts of source routed traffic probably indicate that a network problem is being investigated. Large amounts of source routed traffic is more suspicious and a thorough investigation of the source and reason should be performed.
Error Message
%IDS-4-IPOPT_RR_SIG: Sig:1001:IP options-Record Packet Route - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with an IP option list that contains one or more options that perform various network management or debugging tasks. This alarm may indicate that a reconnaissance attack is in progress against your network. Although network troubleshooting may require the legitimate use of this feature, this is unusual traffic that should be investigated.

Recommended Action  When nonspecific network traffic of this type is encountered, perform prudent security measures to block or disallow the source of the datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message
%IDS-4-IPOPT_SATID_SIG: Sig:1005:IP options-SATNET ID - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received in which the IP option list for the datagram includes option 8 (SATNET stream identifier). No known exploit exists. This option is obsolete and should not be encountered.

Recommended Action  When nonspecific network traffic of this type is encountered, perform prudent security measures to block or disallow the source of the datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message
%IDS-4-IPOPTS_BAD_SIG: Sig:1000:Bad IP Option List - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received in which the list of IP options in the IP datagram header is incomplete or malformed. No known exploits purposely incorporate this option. There is no legitimate use for malformed datagrams. This malformed datagram may indicate systems that are experiencing problems with their kernel or NIC. This condition is indicative of unusual traffic and warrants investigation.

Recommended Action  When nonspecific network traffic of this type is encountered, perform prudent security measures to block or disallow the source of the datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message
%IDS-4-IPOPT_SECURITY_SIG: Sig:1003:IP options-Provides,c,h,tcc - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received in which the IP option list for the datagram includes option 2. No known exploit exists. This message appears if IP security options have been implemented on your network. However, these options are rarely, if ever, implemented.

Recommended Action  When nonspecific network traffic of this type is encountered, perform prudent security measures to block or disallow the source of the datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.
Error Message

%IDS-4-IPOPT_SSRR_SIG: Sig:1006:IP options-Strict Source Route - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received in which the IP option list for the datagram includes option 2 (Strict Source Routing). This option may be misused to defeat authentication mechanisms that rely on IP addresses as their basis for trust relationships. Although network troubleshooting may require the legitimate use of this feature, this type of traffic is rarely, if ever, noted and should make up much less than 1 percent of network traffic.

Recommended Action  Small amounts of source routed traffic probably indicates a network problem that is being investigated. Large amounts of source routed traffic is more suspicious, and the source of, and reason for, this datagram should be investigated.

Error Message

%IDS-4-IPOPT_TS_SIG: Sig:1002:IP options-TimeStamp - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received in which the IP option list for the datagram includes option 4 (Timestamp). This alarm indicates that a reconnaissance attack may be in progress against your network. Although network troubleshooting may require the legitimate use of this feature, this is unusual traffic and should be investigated.

Recommended Action  When nonspecific network traffic of this type is encountered, perform prudent security measures to block or disallow the source of the datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message

%IDS-4-IP_UNKNOWN_PROTO_SIG: Sig:1101:Unknown IP Protocol - from [IP_address] to [IP_address]

Explanation  An IP datagram has been received with the protocol field set to 101 or greater. The use of these protocol types is highly unusual and should be investigated.

Recommended Action  When nonspecific network traffic of this type is encountered, perform prudent security measures to block or disallow the source of the datagram. If the source of this datagram is legitimate, the source of the datagram will identify itself.

Error Message

%IDS-4-LOST_CONNECT: Connection to HostID:[int] OrgID:[int]

Explanation  A connection has been dropped, but there was no previous connection. Locally developed protocols that use these protocol types will trigger this message. The use of these protocol types is highly unusual and should be investigated.

Recommended Action  IDS cannot communicate with the Director. Check the connectivity to the Director and check the post office configuration on both the router and the Director.
Error Message
%IDS-4-RPC_CALLIT_REQUEST: Sig:6103:Proxied RPC Request - from [IP_address] to [IP_address]

Explanation  A proxied RPC request has been sent to the portmapper of a target host.

Recommended Action  If this procedure is allowed on your network, users who employ it will trigger this message. This condition may be a serious attempt at gaining unauthorized access. If the source of the attempt is not within your network, it should be blocked.

Error Message
%IDS-4-RPC_DUMP_REQUEST: Sig:6102:RPC Dump - from [IP_address] to [IP_address]

Explanation  An RPC dump request has been issued to a target host. This is a common procedure performed by many system administrators and wary users to determine which RPC services are being offered. Executing this procedure is most likely due to curiosity on the part of a novice user or due to a system administrator performing system maintenance.

Recommended Action  If upon investigation no valid user can be associated with this event, perform prudent security measures to block the source of this RPC dump request.

Error Message
%IDS-4-RPC_PORTREQ_MOUNTD: Sig:6155:RPC mountd Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the mount daemon (mountd) port. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.

Error Message
%IDS-4-RPC_PORTREQ_REXD: Sig:6175: RPC rexd Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the remote execution daemon (rexd) port. The remote execution daemon is the server responsible for remote program execution. This condition may indicate an attempt to gain unauthorized access to system resources. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.
Error Message

%IDS-4-RPC_PORTREQ_YPBIND: Sig:6151:RPC ypbind Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the YP bind daemon (ypbind) port. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.

Error Message

%IDS-4-RPC_PORTREQ_YPPASSWDD: Sig:6152:RPC yppasswdd Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the YP password daemon (yppasswdd) port. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.

Error Message

%IDS-4-RPC_PORTREQ_YPserv: Sig:6150:RPC ypserv Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the YP server daemon (ypserv) port. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.

Error Message

%IDS-4-RPC_PORTREQ_YPUPDATED: Sig:6153:RPC ypupdated Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the YP update daemon (ypupdated) port. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.

Error Message

%IDS-4-RPC_PORTREQ_YPXFRD: Sig:6154:RPC ypxfrd Portmap Request - from [IP_address] to [IP_address]

Explanation  A request has been made to the portmapper for the YP transfer daemon (ypxfrd) port. If this procedure is allowed on your network, users who employ it will trigger this message.

Recommended Action  This request may be a serious attempt to gain unauthorized access. If the source of the attempt is not within your network, block the source of this request.
Error Message
%IDS-4-RPC_RXED_REQUEST: Sig:6180:RPC rexd Attempt - from [IP_address] to [IP_address]

Explanation  A call to the rexd program has been made. The remote execution daemon is the server responsible for remote program execution. This procedure may be indicative of an attempt to gain unauthorized access to system resources. Even if this service is being used legitimately, this alarm will occur.

Recommended Action  For security purposes, this service should not be used.

Error Message
%IDS-4-RPC_SET_REQUEST: Sig:6100:RPC Port Registration - from [IP_address] to [IP_address]

Explanation  Attempts have been made to register new RPC services on a target host. No benign triggers exist for this message.

Recommended Action  Perform prudent security practices and block the source of this attempt.

Error Message
%IDS-4-RPC_STATD_OVFLW: Sig:6190:statd Buffer Overflow - from [IP_address] to [IP_address]

Explanation  A large statd request has been sent.

Recommended Action  This message should not be seen in legitimate traffic.

Error Message
%IDS-4-RPC_UNSET_REQUEST: Sig:6101:RPC Port Unregistration - from [IP_address] to [IP_address]

Explanation  Attempts have been made to unregister new RPC services on a target host. No benign triggers exist for this message.

Recommended Action  Perform prudent security practices and block the source of this attempt.

Error Message
%IDS-4-STR_MATCH_SIG: Sig:8000:FTP Retrieve Password File - from [IP_address] to [IP_address]

Explanation  The string “passwd” has been issued during an FTP session. Although system administrators might use this service to update system files, issuing the string “passwd” on a regular basis is a high security risk and should be avoided. No other benign triggers exist for this message.

Recommended Action  If, after investigation, the alarm was not generated by a system administrator, perform prudent security practices and block the source of the string.
Error Message

%IDS-4-TCP_FIN_ONLY_SIG: Sig:3042:TCP - FIN bit with no ACK bit in flags - from [IP_address] to [IP_address]

Explanation  A TCP packet has been received with the FIN bit set but with no ACK bit set in the flags field. There is no legitimate use for malformed TCP datagrams. This condition is indicative of unusual network traffic and warrants investigation. Hacker tools will generate TCP packets with the FIN bit set but with no ACK bit set in the flags field in an attempt to elude intrusion detection.

Recommended Action  When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this TCP packet. If the source of this packet is legitimate, the source of the packet will identify itself.

Error Message

%IDS-4-TCP_FTP_CWDROOT_SIG: Sig:3152:FTP CWD ~root - from [IP_address] to [IP_address]

Explanation  A user has attempted to execute the *cwd ~root* command. There is no known reason why this command should ever be executed.

Recommended Action  If this message is triggered from a source outside of your network perform prudent security practices and block the source of the request.

Error Message

%IDS-4-TCP_FTP_PORT_BADADDR_SIG: Sig:3153:FTP Improper Address Specified - from [IP_address] to [IP_address]

Explanation  A port command has been issued with an address that is not the same as the requesting host.

Recommended Action  No action is required.

Error Message

%IDS-4-TCP_FTP_PORT_BADPORT_SIG: Sig:3154:FTP Improper Port Specified - from [IP_address] to [IP_address]

Explanation  A port command has been issued with a data port specified that is less than 1024 bytes or greater than 65535 bytes.

Recommended Action  No action is required.
Error Message

%IDS-4-TCP_FTP_SITE_SIG: Sig:3150:FTP Remote Command Execution - from [IP_address] to [IP_address]

Explanation  A user has attempted to execute the FTP site command. The site command allows a user to execute a limited number of commands via the FTP server on the host machine. No authentication is required to execute the site command. The commands that may be executed vary from system to system and on many systems the site command is not implemented.

Recommended Action  Disable the site command on the FTP servers, if possible. If this message is triggered by a source outside of your network, perform prudent security measures and block the source of this FTP site command.

Error Message

%IDS-4-TCP_FTP_SYST_SIG: Sig:3151:FTP SYST Command Attempt - from [IP_address] to [IP_address]

Explanation  A user has attempted to execute the FTP syst command. The syst command returns the type of operating system that the FTP server is running. Authentication is not required to execute this command. The syst command provides information that may be used to refine attack methods. An FTP from a Linux session will cause the syst message to appear. Some proxies, such as the TIS Toolkit, issue the syst command as a matter of course.

Recommended Action  Use an FTP version that has the syst command disabled.

Error Message

%IDS-4-TCP_MAJORDOMO_EXEC_BUG: Sig:3107:Majordomo Execute Attack - from [IP_address] to [IP_address]

Explanation  Because of a bug in the Majordomo program, a remote user has attempted to execute arbitrary commands at the privilege level of the server.

Recommended Action  Perform prudent security measures and block the source of this attempt.

Error Message

%IDS-4-TCP_NO_FLAGS_SIG: Sig:3040:TCP - No bits set in flags - from [IP_address] to [IP_address]

Explanation  A TCP packet has been received with no bits set in the flags field. Hacker tools will generate TCP packets with no bits set in the flags field in an attempt to elude intrusion detection. There is no legitimate use for malformed TCP datagrams. This is unusual traffic and warrants an investigation.

Recommended Action  When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this TCP packet. If the source of this packet is legitimate, the source of the packet will identify itself.
Error Message
%IDS-4-TCP_SENDMAIL_BAD_FROM_SIG: Sig:3102:Sendmail Invalid Sender - from [IP_address] to [IP_address]

Explanation  An e-mail message with a pipe (|) symbol in the From: field has been received. The presence of a pipe (|) in the From: field is a very serious indication that your network may be under attack.

Recommended Action  Immediately block the source of the e-mail message. For security reasons, users should not be allowed to execute programs via e-mail servers.

Error Message
%IDS-4-TCP_SENDMAIL_BAD_TO_SIG: Sig:3101:Sendmail Invalid Recipient - from [IP_address] to [IP_address]

Explanation  An e-mail message with a pipe (|) symbol in the recipient field has been received. The presence of a pipe (|) in the recipient field is a very serious indication that your network may be under attack.

Recommended Action  Immediately block the source of the e-mail message. For security reasons, users should not be allowed to execute programs via e-mail servers.

Error Message
%IDS-4-TCP_SENDMAIL_BOUNCE_SIG: Sig:3100:Smail Attack - from [IP_address] to [IP_address]

Explanation  A very common “smai” attack against e-mail servers has occurred. This attack attempts to cause e-mail servers to execute programs on behalf of the attacker. This is a very serious indication that your network may be under attack.

Recommended Action  Immediately block the source of the e-mail message. For security reasons, users should not be allowed to execute programs via e-mail servers.

Error Message
%IDS-4-TCP_SENDMAIL_DECODE: Sig:3105:Sendmail Decode Alias - from [IP_address] to [IP_address]

Explanation  An e-mail message with “: decode@” in the header has been received. The decode alias is used to uudecode files and is primarily implemented as a convenience for system administration. If the decode alias is allowed to uudecode files, users who send e-mail to the alias will cause this message to appear.

Recommended Action  For security purposes, the decode alias should not be allowed to uudecode files, and the service should be disabled. It is recommended that you block any hosts that attempt to send e-mail to this alias, especially if they are outside of your network.
**Error Message**

%IDS-4-TCP_SENDMAIL_INVALID_COMMAND: Invalid SMTP command - from [IP_address] to [IP_address]

**Explanation** An invalid SMTP command in the SMTP connection has been entered. A suspicious violation that may be an attack to the mail server system has been detected.

**Recommended Action** Investigate the cause of the traffic.

**Error Message**

%IDS-4-TCP_SENDMAIL_OLD_SIG: Sig:3104:Archaic Sendmail Attacks - from [IP_address] to [IP_address]

**Explanation** The `wiz` or `debug` command has been sent to the SMTP port. There is no reason for this type of traffic to be seen on modern networks.

**Recommended Action** Although there is little chance that there will be any adverse effects from someone attempting these old hacker commands, perform prudent security practices and block the source of this attempt.

**Error Message**

%IDS-4-TCP_SENDMAIL_SPAM_SIG: Sig:3106:Excessive Rcpt to: (SPAM) - from [IP_address] to [IP_address]

**Explanation** An excessive number of “RCPT TO:” fields in the header of e-mail messages have been received. Some types of mailing list software may trigger this message.

**Recommended Action** No action is required.

**Error Message**

%IDS-4-TCP_SENDMAIL_VRFY_SIG: Sig:3103:Sendmail Reconnaissance - from [IP_address] to [IP_address]

**Explanation** The `expn` or `vrfy` command has been issued to the SMTP port. These commands are commonly used to verify that a user e-mail account exists on the server or to expand an alias to determine who the actual recipients of a message may be. Users that use the `expn` and `vrfy` functions for legitimate purposes will trigger this message. The information that can be obtained from the `expn` and `vrfy` commands is useful, but not dangerous on its own.

**Recommended Action** Monitor future traffic for patterns of misuse.
Error Message

%IDS-4-TCP_SYN_ATTACK_SIG: Sig:3050: Half-Open Syn Flood - from [IP_address] to [IP_address]

Explanation The number of half-open TCP connections has exceeded the high-water mark or the one minute high-rate mark. There are no known sources that would legitimately generate this traffic pattern. This condition may indicate some type of network problem and should be investigated.

Recommended Action To avoid depletion of your network resources, it is recommended that you block the source during the course of the investigation. If no network problems are discovered, perform prudent security practices and permanently block the host.

Error Message

%IDS-4-TCP_SYN_FIN_SIG: Sig:3041: TCP - SYN and FIN bits set - from [IP_address] to [IP_address]

Explanation A TCP packet has been received with both the SYN and FIN bits set in the flags field. Hacker tools will generate TCP packets with the SYN and FIN bits set in the flags field in an attempt to elude intrusion detection. There is no legitimate use for malformed TCP datagrams. This condition is indicative of unusual traffic and warrants an investigation.

Recommended Action When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this TCP packet. If the source of this packet is legitimate, the source of the packet will identify itself.

Error Message

%IDS-4-UDP_BOMB_SIG: Sig:4050: UDP Bomb - from [IP_address] to [IP_address]

Explanation The specified UDP length is less than the specified IP length. This malformed packet type is associated with a denial-of-service attempt. There is no legitimate use for malformed datagrams. This message may be indicative of systems that are experiencing problems with their kernel or NIC. This condition is indicative of unusual traffic and warrants an investigation.

Recommended Action When nonspecific network traffic of this type is encountered, the best action from a security perspective is to block or disallow the host that sent this packet. If the source of this packet is legitimate, the source of the packet will identify itself.

Error Message

%IDS-4-UDP_TFTP_PASSWD_SIG: Sig:4100: Tftp Passwd File - from [IP_address] to [IP_address]

Explanation A user has attempted to use TFTP to obtain a password file. System administrators might use this service to update system files. Using TFTP to update system files on a regular basis is a high security risk and should be avoided. No other benign triggers exist for this message.

Recommended Action If, after investigation, the alarm was not generated by a system administrator, perform prudent security practices and block the source of this attempt.
IDTATM25 Messages

The following are Integrated Digital Terminal (IDT) ATM25 network module error messages.

Error Message
%IDTATM25-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation The ATM25 network module hardware may be defective.

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

Error Message
%IDTATM25-3-FAILSETUPVC: Interface [chars], Failed to setup vc [dec] (Cause: [chars])

Explanation The ATM25 network module hardware may be defective.

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

Error Message
%IDTATM25-3-FAILTEARDOWNVC: Interface [chars], Failed to down vc [dec] (Cause: [chars])

Explanation The ATM25 network module hardware may be defective.

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

Error Message
%IDTATM25-1-INITFAIL: IDTATM25([dec]/[dec]), Init failed, CSR[dec]=[hex].

Explanation The ATM25 network module hardware may be defective.

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

Error Message
%IDTATM25-3-NOTIDTATM25: Device reported [hex]

Explanation The ATM25 network module hardware may be defective.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IDTATM25-3-RXLOSTSYNC: IDB= [chars], RX lost sync, Interface reset

Explanation  The Rx has hung.

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

Error Message
%IDTATM25-3-TXHANG: IDB= [chars], TX hang, Interface reset

Explanation  The Tx has hung.

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

Error Message
%IDTATM25-6-TXLIMIT: ATM transmit bandwidth is limited to smallest shaped value.

Explanation  The ATM transmit bandwidth is limited to the smallest shaped value. Any PVC configured with traffic shaping will limit the entire ATM interface to not exceed the bandwidth of any traffic shaped PVC.

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

Error Message
%IDTATM25-3-UNSUPPORTED: Interface [chars], [chars] not supported

Explanation  The ATM25 network module hardware may be defective.

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

IF Messages

The following are Interface error messages.

Error Message
%IF-3-IDB_LIST_BAD_REF_COUNT: A bad reference count was encountered in an idb list element.

Explanation  A software error has occurred.

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

The following are Cisco IOS file system error messages.

**Error Message**
%IFS-4-FILEMAX: Failed to open [chars], maximum open files [dec])

**Explanation** The router has reached the maximum number of files that may be open at one time.

**Recommended Action** Close some files and try the operation again. If this messages recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%IFS-3-FS_CREATE_FAIL: Failed to create [chars] file system, [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**
%IFS-3-FS_CREATE_FAIL2: Failed to create [chars] simple file system, [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**
%IFS-3-FSDUP: Failed to add [chars], filesystem prefix exists

**Explanation** A file system could not be added because another file system exists with the same name.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IFS-3-FS_MAX: Failed to add [chars], maximum filesystems [dec]

Explanation  The router has reached the maximum number of file systems that can be supported at one time.

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

Error Message
%IFS-3-FS_MISSING_FUNCTIONS: '[chars]' file system missing required functions, not created

Explanation  Some file systems require a certain set of functions to be present in order to be usable. This file system does not support all the mandatory functionality.

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

IGRP Messages

The following are Interior Gateway Routing Protocol (IGRP) error messages.

Error Message
%IGRP-3-NOSOCKET: Unable to open socket for AS [dec]

Explanation  The requested operation could not be accomplished because of insufficient memory.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

ILACC Messages

The following are ILACC driver error messages.

Error Message
%ILACC-4-BABBLE: Unit [dec], babble error, csr0 = [hex]

Explanation  An Ethernet interface has malfunctioned.

Recommended Action  Determine whether the malfunction stems from a software or hardware error by turning off all fast switching. Error messages showing that the packet is too large for the link indicate a software error at a high level. Copy the error message exactly as it appears on the console or in the
system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Receiving no error messages indicates a hardware error. Repair or replace the controller.

**Error Message**

%ILACC-3-BADUNIT: Bad unit number [dec]

**Explanation**  An internal software error has occurred.

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

**Error Message**

%ILACC-5-COLL: Unit [dec], excessive collisions. TDR=[dec]

**Explanation**  An Ethernet cable is broken or is not terminated, or the transceiver is unplugged. The TDR counter is an internal ILACC counter that counts the time (in ticks of 100 ns each) from the start of the transmission to the occurrence of a collision. Because a transmission travels about 35 feet per tick, this value is useful to determine the approximate distance to a cable fault.

**Recommended Action**  If the transceiver appears to be properly terminated, repair or replace the Ethernet interface card.

**Error Message**

%ILACC-1-INITFAIL: Unit [dec], initialization timeout failure, csr[dec]=[hex]

**Explanation**  The hardware failed to initialize correctly.

**Recommended Action**  Repair or replace the controller.

**Error Message**

%ILACC-5-LATECOLL: Unit [dec], late collision error

**Explanation**  An Ethernet transceiver is malfunctioning, the Ethernet is overloaded, or the Ethernet cable is too long.

**Recommended Action**  Repair or replace the controller.

**Error Message**

%ILACC-5-LOSTCARR: Unit [dec], lost carrier. Transceiver problem?

**Explanation**  An Ethernet transceiver is unplugged or faulty.

**Recommended Action**  Repair or replace the controller.
IMA Messages

Error Message
%ILACC-1-MEMERR: Unit [dec], memory error, csr[dec]=[hex]

Explanation  An Ethernet interface has detected a hardware problem.

Recommended Action  Repair or replace the controller.

Error Message
%ILACC-3-OWNERR: Unit [dec], buffer ownership error, pak = [hex]

Explanation  An Ethernet interface is malfunctioning, or an internal software error has occurred.

Recommended Action  Repair or replace the controller.

Error Message
%ILACC-3-SPURIDON: Unit [dec], spurious IDON interrupt, csr[dec]=[hex]

Explanation  An Ethernet interface has generated a spurious Initialization Done interrupt.

Recommended Action  Repair or replace the controller.

Error Message
%ILACC-3-UNDERFLO: Unit [dec], underflow error

Explanation  The Ethernet hardware is requesting data faster than the system can supply it. This condition might indicate that the system is at the limit of its performance.

Recommended Action  A small number of underflows might not be a cause for concern. You can monitor underflows with the show interface command. Reducing the load on the router or installing a higher-performance router should alleviate this problem.

IMA Messages

The following are inverse multiplexing over ATM (IMA) error messages.

Error Message
%IMA-5-ACTIVE_LINK_CHANGE: IMA Group [chars] now has [dec] active links, active link bitmap is [hex].

Explanation  Active links were added or removed from the group; thereby changing its bandwidth.

Recommended Action  No action is required.
Error Message
%IMA-1-BAD_CMD: Command opcode [hex] on channel [dec] on slot [dec] was rejected.

Explanation The IMA firmware has rejected the command because of the current protocol state of the interface, or the opcode is undefined.

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

Error Message
%IMA-4-CLOCK_MODE_COMMON_DELAYED: Link [dec] will become the common transmit clock once it is added to group [chars]

Explanation The link configured as the common transmit clock is not a member of the group, so it cannot provide the clock. The group will use a common transmit clock that is automatically chosen from one of the other active links.

Recommended Action No action is required.

Error Message
%IMA-1-DISCOVER: The Network Module in slot [dec] did not initialize.

Explanation The network module has failed its initialization.

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

Error Message
%IMA-1-DOWNLOAD_FAILED: Download of [chars] to failed to at [hex] on IMA Network Module in slot [dec].

Explanation An error occurred during the download of firmware to the IMA network module.

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

Error Message
%IMA-1-FPGA_DOWNLOAD_FAIL: FPGA Download on module in slot [dec] failed.

Explanation An error occurred during the download of the FPGA on the IMA network module.

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

%IMA-1-INVALID_PCI_ID: The Network Module in slot [dec] reports an invalid [chars] device id of [hex].

Explanation The IMA network module hardware may be defective.

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

Error Message

%IMA-1-MAILBOX_FULL: The mailbox for channel [dec] on IMA Network Module in slot [dec] is completely full. Message [dec] was dropped.

Explanation The IMA network module mailboxes are full and cannot accept any more requests.

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

Error Message

%IMA-1-NETWORK_PROCESSOR_NOT_READY: Network processor on module in slot [dec] failed to come up.

Explanation An error has occurred during reset of the IMA network module.

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

Error Message

%IMA-1-NO_ATM_CHANNEL_AVAILABLE: Delaying activation of [chars] until a currently active interface is shutdown.

Explanation The IMA network module can support a maximum of four active interfaces at one time. Once more than four interfaces have been activated with the no shutdown command, each interface will wait for an existing interface to be shut down before becoming activated.

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

Error Message

%IMA-5-NO_LINK_MEMBERS: [chars] is using channel [dec] but has no configured links.

Explanation The IMA interface has been configured as Up, but it has no link members. The IMA interface cannot become active until active links are added to the group.

Recommended Action No action is required.
Error Message
%IMA-1-NO_MAIL_REPLY: Timed out waiting for a response to command [hex] from slot [dec].

Explanation  The IMA network module has failed to respond with the requested information. Information to be displayed by requesting an EXEC command or SNMP manager is incomplete. This is an extremely rare event and should only happen under severe system load.

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

Error Message
%IMA-1-PCMCIA: The IMA Network Module in slot [dec] is incompatible with the PCMCIA controller in the router.

Explanation  The PCMCIA controller is contains downlevel software and is incompatible with the specified IMA network module.

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

Error Message
%IMA-1-PROCESS_NEVER_RECEIVED_MAIL_REPLY: Previous process [dec] never received mail response from slot [dec].

Explanation  The previous process request was terminated before receiving a mail reply.

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

Error Message
%IMA-1-SHARED_MEMORY_ERROR: Module in slot [dec] had a shared memory error.

Explanation  The memory on the network module has failed the power-on diagnostic check.

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

Error Message
%IMA-4-TEST_LINK_DELAYED: Link [dec] will initiate the test pattern procedure once its added to group [chars].

Explanation  The link chosen to transmit the test pattern is not a member of the group; therefore, the link cannot transmit the test pattern.

Recommended Action  No action is required.
Error Message
%IMA-4-TEST_LINK_STOPPED: Stopping test pattern procedure on group [chars].

Explanation  The link transmitting the test pattern has been removed from the group, thereby stopping the transmission of the test pattern.

Recommended Action  No action is required.

INTERFACE_API Messages

The following are error messages for the Binary API for the interface descriptor block.

Error Message
%INTERFACE_API-4-BADPAKINPUT: pak->if_input is not initialized

Explanation  An internal software error has occurred.

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

Error Message
%INTERFACE_API-4-BADPAKOUTPUT: pak->if_output is not initialized

Explanation  An internal software error has occurred.

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

Error Message
%INTERFACE_API-4-BADPOINTER: Function [chars] detected an invalid [chars] pointer of [hex], ignoring

Explanation  A software error has occurred. This message is displayed when an invalid pointer is detected.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, call your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%INTERFACE_API-4-BADSWIDB: [chars] may not be referencing the correct swidb

Explanation  An internal software error has occurred.

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

Error Message
%INTERFACE_API-3-NODESTROYSUBBLOCK: The [chars] subblock named [chars] was not removed

Explanation  A software error has occurred. This message is displayed when IDB subblocks cannot be removed.

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

Error Message
%INTERFACE_API-1-NOMORESWIDB: No more SWIDB can be allocated, maximum allowed [dec]

Explanation  No more interfaces can be created because the maximum number of SWIDB allowed for this platform has been reached.

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

IOCARD Messages

The following are I/O card-specific error messages.

Error Message
%IOCARD-3-IONOT0: IO card discovered in non-zero slot [dec]

Explanation  An I/O card was detected in a nonzero slot.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IOCARD-3-UNSUPPORTED: [chars] in slot[dec] is not supported on [chars] chassis

Explanation  The software has identified and disabled the FE on the I/O card.

Recommended Action  No action is required.

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IP Messages

The following are IP error messages.

Error Message
%IP-5-ACL: [chars]

Explanation  An error occurred during the IP access check.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IP-3-BADIPALIGN: Invalid alignment in packet for IP. [chars]=[hex]

Explanation  The packet data structure is misaligned. This condition may result in a small amount of overhead in processing IP traffic.

Recommended Action  Enter the `show hardware` command and report the output, along with this error message, to your Cisco technical support representative.

Error Message
%IP-3-BADSROUTE: Improper source route. Length [dec] Ptr [dec]

Explanation  A hardware or software error has occurred.

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

%IP-4-CLASS: Bad IP address and mask [IP_address][IP_netmask] in class_resolve()

Explanation  An internal software error has occurred.

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

Error Message

%IP-3-CNTRFULL: IP counter block is full (setting protocol [dec])

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%IP-3-DESTHOST: src=[IP_address], dst=[IP_address], NULL desthost

Explanation  An internal software error has occurred.

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

Error Message

%IP-4-DUPADDR: Duplicate address [IP_address] on [chars], sourced by [enet]

Explanation  Another system is using your IP address.

Recommended Action  Change the IP address of one of the two systems.

Error Message

%IP-3-LOOPPAK: Looping packet detected and dropped -
src=[IP_address], dst=[IP_address], hl=[int], tl=[int], prot=[int], sport=[int], dport=[int] in=[chars], nexthop=[IP_address], out=[chars]\noptions=[chars]

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

Recommended Action  Analyze the source and destination address of the looped packets and verify that the configuration of IP helper addresses in the router is correctly pointing to the right device and is not pointing to the router itself.
Error Message

%IP-3-STCKYARPOVR: Attempt to overwrite Sticky ARP entry: [IP_address], hw: [enet] by hw: [enet]

Explanation  Multiple stations are configured with the same IP in a private VLAN. IP address stealing might have occurred.

Recommended Action  Change the IP address of one of the two systems.

Error Message

%IP-4-UNICASTRPF: IP unicast reverse-path check disabled on [chars]

Explanation  Unicast Reverse Path Forwarding, which is invoked by entering the ip verify unicast reverse-path command, was disabled because CEF was disabled either through configuration or because of an internal error.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%IP-5-WEBINST_COMP: Selected IP address [IP_address]

Explanation  A hardware or software error has occurred.

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

Error Message

%IP-5-WEBINST_KILL: Terminating DNS process

Explanation  A hardware or software error has occurred.

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

Error Message

%IP-5-WEBINST_RESP: Sending DNS response to [IP_address] (request was for [IP_address])

Explanation  A hardware or software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IP-5-WEBINST_START: Attempting web install from host [IP_address]

Explanation  A hardware or software error has occurred.

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

Error Message
%IP-4-ZERO_ADDR: Zero MAC address for [IP_address] in ARP cache

Explanation  An entry in the ARP cache has a null MAC address.

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

IPA Messages

The following are Intelligent Port Adapter error messages.

Error Message
%IPA-3-INVMBXCMD: [chars]: invalid mailbox command: [hex]

Explanation  A subsystem has attempted to register a mailbox command that is out of range.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPA-3-NEVER: bay [[chars]] mailbox response timed out after ([int] + [int]) usecs, mbx=[hex]

Explanation  A mailbox command that was sent from the driver to the channel port adapter was not completed within the expected time limit. As a result of this error, the channel port adapter driver will reset the port adapter and reload microcode to it.

Recommended Action  The reset and reload should rectify the problem. If the problem is not fixed, reenter the microcode reload command.
If this error recurs, record the output from the following commands to gather data that may help identify the nature of the error:

```
show tech
dir slot0:
dir slot1:
show log
```

If you cannot determine the nature of the error from the error message text or from the output of these commands, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPA-3-PORTCONN: bay [[int]] failed to establish [chars] connection ([hex])

**Explanation**  An attempt to establish a console or debugger connection with the channel port adapter has failed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPA-3-PORTIOKILL: Port IO [chars] process terminating.

**Explanation**  An unexpected termination of a port I/O process has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPA-3-UKNMBXCMD: [chars]: unknown mailbox command: [hex] [hex] [hex] [hex]

**Explanation**  The channel port adapter has sent a mailbox command that the driver did not expect. This error may occur if there is a version mismatch between the system image and the microcode.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
**IPACCESS Messages**

The following are IP security error messages.

**Error Message**

%IPACCESS-2-NOMEMORY: Alloc fail for acl-config buffer. Disabling distributed mode on lc

**Explanation**  A buffer could not send access-list configuration to the line cards because memory could not be allocated to the buffer.

**Recommended Action**  Enter the show chunks command and report the output, along with this error message, to your Cisco technical support representative.

**Error Message**

%IPACCESS-2-WRONGREQUEST: Invalid request to allocate chunk of size [dec]

**Explanation**  A request for an ACL chunk was received but was rejected because it was larger than the maximum size allowed. The maximum size allowed for an ACL chunk is IPACCESS_LARGE_CHUNK_SZ.

**Recommended Action**  No action is required.

**Error Message**

%IPACCESS-2-WRONGSIZE: Incorrect length acl ipc xdr of type=[chars] len=[dec] received

**Explanation**  The RP has sent an ACL configuration message that was the wrong size for the specified type.

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

The following are interprocess communication (IPC) error messages.

**Error Message**

%IPC-2-CANT_SEND: Cannot send IPC message: [chars]

**Explanation**  An error has occurred in the IPC slave discovery mechanism. This error might result in a malfunction in the operation of the IPC.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPC-4-CONSISTENCY: Message failed consistency check: [chars]

**Explanation**  An internal inconsistency was found in some IPC data structures.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPC-3-DELETED: Attempt to delete an IPC message ([hex]) a second time

**Explanation**  An internal inconsistency was found in some IPC data structures.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show ipc status` and `show ipc queue` commands to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show ipc status` and `show ipc queue` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPC-4-GET_PAK_MSG: Failed for message size=[dec]

**Explanation**  System is out of memory buffers of the required size.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%IPC-3-GIANT: Request for giant IPC packet denied. Request size = [dec]

Explanation  A user has requested a message that is too large for the IPC system.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show ipc status command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show ipc status command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-5-INVALID: [chars] [chars]=[hex]

Explanation  An IPC message that has an invalid Seat, Port, or Callback was received.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-2-INVALSIZE: IPC message received with invalid size(size/type - [dec]/[dec])

Explanation  An IPC message with an invalid size has been received.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-2-LOCK: Lock done a deleted element

Explanation  An internal inconsistency was found in some IPC data structures.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
**Error Message**

%IPC-3-LOWBUFF: The main IPC message header cache below application reserve count ([dec]).

**Explanation** The main IPC message header cache has fallen below the application reserve count.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show ipc status` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPC-2-NO_ACK_HANDLER: No handler for ACK with data.

**Explanation** A preview function appended data to an acknowledgment at the sender, but there is no corresponding acknowledgment handler at the receiver.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPC-3-NOBUFF: The [chars] IPC message header cache has emptied

**Explanation** The specified IPC message header cache has emptied.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show ipc status` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPC-5-NODELFUNC: Delayed init function not available

**Explanation** The IPC application cannot be initialized because its initialization function does not appear in the IPC initialization function list.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%IPC-2-NODISPATCH: Message for [dec].[dec] has no receive queue or dispatch routine

Explanation  The IPC user has failed to provide any means of handling the received message.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show ipc ports command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show ipc ports output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-2-NOMEM: No memory available for [chars]

Explanation  The IPC protocol subsystem could not obtain the memory it needed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-5-NULL: [chars] [chars]=[hex], seq = [hex]

Explanation  An IPC message has a null Seat, Port or Callback.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-5-NULLDELFUNC: Passed Null Delayed function to register

Explanation  IPC cannot register the NULL function of an application in the IPC initialization function list.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
### Error Message

| IPC-2-ONINT: Called from interrupt level: [chars] |

**Explanation** The IPC user attempted a prohibited call into IPC while IPC was running on the interrupt stack.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show ipc status` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

### Error Message


**Explanation** The IPC output has failed in the function for the given seat with the specified sequence numbers for sending and receiving.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

### Error Message

| IPC-2-PRECLOSE: IPC port pre-closure overflow : [hex] : [hex] |

**Explanation** the IPC defer table has overflowed because an application tried to close an IPC port when there were messages pending in the retransmit queue.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

### Error Message

| IPC-5-QFULL: Q=[hex] [chars] [dec] |

**Explanation** The IPC queue is full.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%IPC-5-SEQ_ERR: [chars] Num [dec] From [hex],[hex]

Explanation Errors have occurred in the IPC message sequence numbers.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPC-5-SLAVELOG: VIP-[chars]

Explanation The Cisco IOS software running on a VIP card generated this message. The error message has been passed up to the RP or RSP for display. This message appears only if the user has entered the `service slave-log` global configuration command.

Recommended Action The console will start displaying the log messages generated by the VIP card. The message generated from the VIP card along with the output generated by entering the `show tech-support` command will help to identify the nature of the problem.

Error Message
%IPC-2-TEST: IPC test: [chars]

Explanation The IPC test routines have finished running.

Recommended Action This message is an IPC test message only. No action is required.

Error Message
%IPC-2-UNLOCK: Unlock done on already unlocked element

Explanation An internal inconsistency was found in some IPC data structures.

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

The following are Route Processor interprocess communication error messages.

Error Message
%IPCGRP-3-CARDERR: [chars]

Explanation  An IPC card has registered itself to the IPC master twice. The card malfunctioned and its IPC is not active.

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

Error Message
%IPCGRP-3-CMDOP: IPC command [int] (slot[int]/[int]): [chars]

Explanation  Operational errors occurred when the IPC was processing a command.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCGRP-3-CREATE_FAIL: [chars] [chars]

Explanation  An IPC port has failed to be created on the RP.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCGRP-3-EVENTOP: Event [int] from slot[int]: [chars]

Explanation  IPC event processing operational errors have occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPCGRP-3-EXECCMDMSG: Incorrect msg size (size=[int])

**Explanation**  The REXEC-On IPC command was the wrong size.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCGRP-3-INVNUM: [chars] ([int])

**Explanation**  The IPC application tried to send a message that was larger than IPC could handle. The message was not transmitted.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCGRP-3-MSGERR: [chars] ([int])

**Explanation**  The slave IPC cannot register with the master and therefore cannot exchange messages with the master.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCGRP-3-NBLRCMD: [chars]

**Explanation**  A nonblocking IPC command queue initialization failure has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCGRP-3-NOHWIDB: Cannot find hwidb for interface([int]/[int])

**Explanation**  An interface identifier does not exist for the interface addressed by the corresponding IPC message.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%IPCGRP-3-NULLMSG: Null [chars] ipc message

Explanation  An unexpected empty IPC message was received.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPCGRP-3-NULLREXECCMD: Received empty ipc rexec cmd message

Explanation  A REXEC-On IPC command failure has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPCGRP-3-REXEC: [chars]

Explanation  A REXEC-On Interprocess Communication command failure has occurred. This message appears very often along with %IPCGRP-3-SYSCALL messages; however, the same troubleshooting procedure applies. This message might appear if the primary and standby Gigabit Route Processors do not have the same Cisco IOS software release.

Recommended Action  Ensure that the primary and standby Gigabit Route Processors are using the same Cisco IOS software image and synchronize the images if necessary. Follow the Recommended Action for the %IPCGRP-3-SYSCALL message. It is also strongly recommended to search for all known software errors with the Software Bug Toolkit. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPCGRP-3-SEATERR: [chars] ([int])

Explanation  The ID associated with an IPC card is either missing, is duplicated, or cannot be created.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPCGRP-3-SYSCALL: System call for command [int] (slot[int]/[int]) : [chars] (Cause: [chars])

Explanation An IPC kernel system call error has occurred. This condition can occur if certain IPC messages sent from the RP to the LC block IPC messages. The RP sets a timer waiting for a response. If it does not receive a response in the given timeout period, the message will be generated.

Recommended Action To troubleshoot these error messages, it is important to figure out why the line card did not reply to the IPC message generated by the RP. This condition could be due to either a FIB reload of the LC due to some external event, a constantly high rate of CPU usage on the line card due to some specific features, or a software error in the Cisco IOS software release. The troubleshooting section of Troubleshooting Fabric Ping Timeouts and Failures on the Cisco 12000 Series Internet Router at the URL http://www.cisco.com/warp/customer/63/ping_failure_12421.shtml#troubleshooting should provide additional information about this error message. It is also strongly recommended to search for all known software errors with the Software Bug Toolkit. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

IPCLC Messages

The following are Internet Router line card interprocess communication error messages.

Error Message
%IPCLC-3-EVENT: Event ([int]) [chars] error

Explanation A command or event processing operational error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCLC-3-EVENTSYS: Event ([int]) system call [chars] error (cause: [chars])

Explanation An IPC kernel system call error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPCLC-3-INTRLVL: LC interrupt level IPC event, [chars]

Explanation An IPC event processing error has occurred at the line card interrupt level.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCLC-3-MSGERR: [chars] ([dec])

Explanation The line card IPC cannot register with the route processor and therefore it cannot exchange messages with the route processor.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCLC-3-OP: [chars]

Explanation A command or event processing operation error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCLC-3-REPLY: Reply (to cmd [int]) [chars] error

Explanation A command or event processing operational error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPCLC-3-REPLYSYS: Reply (to cmd [int]) system call [chars] error (cause: [chars])

Explanation A Reply-to-RP-command operation error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
IPC_RPM Messages

The following are interprocess communication (IPC) error messages.

Error Message
%IPC_RPM-3-CARDERR: [chars]

Explanation The IPC card has registered itself to the IPC master twice.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPC_RPM-3-ECC: WARNING: ECC Single Bit Error Correction

Explanation An ECC single-bit error was detected and corrected.

Recommended Action Enter the debug rpm ecc command to look at the total number of ECC errors that have occurred since the system was booted. Enter the debug rpm ecc command with the number argument, where number is the number of ECC errors that will cause a switchover, to set the number of ECC errors that will cause a switchover.

Error Message
%IPC_RPM-3-INVMSG: [chars] ([dec])

Explanation An invalid IPC message was received during cc command execution.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPC_RPM-3-INVNUM: [chars] ([dec])

Explanation The IPC application tried to send a message that was larger than IPC could handle. The message was not transmitted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPC_RPM-3-NOBUF: [chars]

Explanation The IPC has run out of MEMD buffers.

Recommended Action Reduce the number of applications currently running on the IPC. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPC_RPM-3-SEATERR: [chars] [chars]

Explanation The ID associated with an IPC card either is missing, is duplicated, or cannot be created.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

IPC_RSP_CBUS Messages

The following are interprocess communication (IPC) ciscoBus (CBUS) error messages.

Error Message
%IPC_RSP_CBUS-3-CARDERR: [chars]

Explanation An IPC card has registered itself to the IPC master twice. The card malfunctioned, and its IPC is not active.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPC_RSP_CBUS-3-INVNUM: [chars] ([dec])

Explanation The IPC application tried to send a message that was larger than the IPC could handle. Therefore, the message was not transmitted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%IPC_RSP_CBUS-3-MSGERR: [chars] ([dec])

Explanation  The slave IPC cannot register with the master and therefore cannot exchange messages with the master.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPC_RSP_CBUS-3-NOBUF: [chars]

Explanation  The IPC has run out of memory device (MEMD) buffers.

Recommended Action  Reduce the number of applications currently running on the IPC. Copy the error message exactly as it appears, and report it to your technical support representative.

Error Message

%IPC_RSP_CBUS-3-NOHWQ: Hardware queue for card at slot [dec] not found

Explanation  The IPC messages cannot be transmitted because of a missing hardware queue. The messages were discarded and subsequent messages will not be transmitted to the specified card.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPC_RSP_CBUS-3-SEATERR: [chars] ([dec])

Explanation  The ID associated with an IPC card is either missing, duplicated, or cannot be created.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are IP fast switching error messages.

**Error Message**

%IPFAST-2-BADIF: No support available for interface [chars] (programming error)

**Explanation**  A programming error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPFAST-3-INTLEV: Cache update request at interrupt level: [IP_address]([chars])->[IP_address]([chars])

**Explanation**  A programming error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%IPFAST-4-INVALFAIL: Error invalidating IP fast cache due to memory shortage

**Explanation**  A memory shortage has occurred and could result in incorrect switching decisions. This message is for debugging purposes only.

**Recommended Action**  Upgrade the router memory. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%IPFAST-3-INVALIDADDR: Invalid cache destination [IP_address]/[dec]

**Explanation**  The system has attempted to add a cache entry for an invalid address.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPFAST-6-INVALIDATE: Cache invalidation occurring for [chars]

Explanation  The system is invalidating all cache entries for the specified interface.

Recommended Action  No action is required.

Error Message
%IPFAST-6-INVALREQ: Cache invalidation request for [chars]

Explanation  The system is invalidating all cache requests for the specified interface.

Recommended Action  No action is required.

Error Message
%IPFAST-2-IPCACHEINIT: Error initializing IP fast cache structures

Explanation  A programming error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPFAST-6-PAKSHORT: Packet too short from [IP_address], datagram size [dec], tl [dec]

Explanation  An IP packet that is too short was received.

Recommended Action  No action is required.

Error Message
%IPFAST-2-PAKSTICK: Corrupted pak header for [chars], flags [hex]

Explanation  A programming error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%IPFAST-4-RADIXDELETE: Error trying to delete prefix entry for [IP_address]/[dec] 
(expected [hex], got [hex])

Explanation  A problem has occurred with the IP route cache.

Recommended Action  This message is for debugging purposes only. The router should correct for this error. If the router cannot forward packets properly or is experiencing other problems, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPFAST-2-RADIXINIT: Error initializing IP fast cache structures

Explanation  A programming error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%IPFAST-4-RADIXINSERT: Error trying to insert prefix entry for [IP_address]/[dec] 
(expected [hex], got [hex])

Explanation  A problem has occurred with the IP route cache.

Recommended Action  This message is for debugging purposes only. The router should correct for this error. If the router cannot forward packets properly or is experiencing other problems, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%IPFAST-3-SANITY: Found existing [chars] specific entry 
[IP_address][IP_netmask]..[IP_netmask]->[IP_address] ([chars]) when attempting to create [IP_address][dec]..[dec]->[IP_address] ([chars])

Explanation  A problem has occurred with the IP route cache.

Recommended Action  This message is for debugging purposes only. The router should correct for this error. If the router cannot forward packets properly or is experiencing other problems, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
IPFLOW Messages

The following are IP flow error messages.

Error Message
%IPFLOW-4-ACTIVATE: Error activating [chars][dec] in slot [dec]

Explanation   The activation of a flow-accelerated feature has failed because of a sanity check.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPFLOW-4-ACTIVATENOMEM: Error activating [chars][dec]

Explanation   The activation of a flow-accelerated feature has failed because of insufficient memory.

Recommended Action   Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%IPFLOW-2-CACHEINIT: Error initializing IP flow cache

Explanation   Initialization of the flow cache could not be accomplished because of low memory.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%IPFLOW-4-DEACTIVATE: Error deactivating feature [dec] in slot [dec]

Explanation   The deactivation of a flow-accelerated feature has failed because of a sanity check.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%IPFLOW-4-DEACTIVATENOMEM: Error deactivating feature [dec]

**Explanation**  The deactivation of a flow-accelerated feature has failed because of insufficient memory.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

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**Error Message**

%IPFLOW-2-EXPORTINIT: Error initializing Flow Export queue

**Explanation**  The initialization of the flow export queue could not be accomplished because of insufficient memory.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

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**Error Message**

%IPFLOW-2-PROCESSINIT: Error initializing Flow background process

**Explanation**  The initialization of the flow background process could not be accomplished because of insufficient memory.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

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**Error Message**

%IPFLOW-2-QUEUEINIT: Error initializing Flow feature queue

**Explanation**  The initialization of the flow feature queue could not be accomplished because of insufficient memory.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
The following are Voice over IP (VoIP) driver error messages.

Error Message
%IPM_C54X-3-DSP_ALARM_INDICATION: DSP [dec] Sending alarm indication

Explanation The DSP is indicating that an unexpected event has occurred and it may not continue to
process calls.

Recommended Action Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.

Error Message
%IPM_C54X-1-DSP_TIMEOUT: dsp [dec] NOT RESPONDING.

Explanation The DSP driver cannot queue messages up to the DMA engine for transmission.

Recommended Action Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information. Reset the DSPs on this port module.

Error Message
%IPM_C54X-3-EPIC_NOT_RESPONDING: Epic TDM Switch failure

Explanation The EPIC TDM switch has failed to acknowledge a command.

Recommended Action Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.

Error Message
%IPM_C54X-3-ERROR_INIT_BLDR: DSP [dec] Unable to download the Boot loader
firmware, ret = [hex]

Explanation An error occurred during initialization of the DSP with the bootloader firmware.

Recommended Action Power down the system, reinsert the port module, and reboot the system. If this
message recurs, copy the message exactly as it appears on the console or in the system log, contact
your Cisco technical support representative, and provide the representative with the gathered
information.
Error Message
%IPM_C54X-3-ERROR_INIT_OVERLAY: [chars] Unable to download the Application overlay firmware. Status returned [hex]

Explanation An error occurred during initialization of the DSP with the application overlay firmware.

Recommended Action Power down the system, reinsert the port module, and reboot the system. If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPM_C54X-3-HOST_XMIT_BLOCKED: Host is unable to transmit packets to DSP [dec]

Explanation The software is unable to communicate with one of the DSPs.

Recommended Action Reload the Cisco IOS software image running on the host. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPM_C54X-3-IDB_CREATE: Unable to allocate IDB

Explanation The DSP Interface IDB cannot be allocated.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPM_C54X-3-INIT_CONFIG_FAILED: DSP [dec] Sending alarm indication

Explanation The DSP is unable to properly initialize the ports that it services.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPM_C54X-3-INSUFICIENT_SPMMS: [dec] SPMM Modules to support this configuration

Explanation More than one SPMM module is required for the specified configuration.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%IPM_C54X-3-NO_BUFFERS: No buffers available for DSP buffer pool

**Explanation**
Buffers to the DSP receive buffer pool could not be allocated.

**Recommended Action**
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%IPM_C54X-3-NODSP: Can’t get dsp resources

**Explanation**
There are more VICs in the router than the DSPs can support.

**Recommended Action**
Enter the `show diag` command to determine how many DSPs are present in the router. Upgrade the DSP module to obtain more DSPs.

**Error Message**

%IPM_C54X-1-NO_RING_DESCRIPTORS: No more ring descriptors available on [dec] slot.

**Explanation**
The DSP driver cannot queue messages up to the DMA engine for transmission.

**Recommended Action**
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Reset the DSPs on this port module.

**Error Message**

%IPM_C54X-1-TOOBIG: DSP [dec], packet(size [dec]) too big.

**Explanation**
A packet greater than 256 bytes has been received on this interface.

**Recommended Action**
If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**IPMCAST Messages**

The following are Cisco 12000 series Internet router line card IP multicast error messages.

**Error Message**

%IPMCAST-5-ERR: [chars] [chars]=[hex]

**Explanation**
An error has occurred while processing an IP multicast packet.

**Recommended Action**
Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
IPM_DSPRM Messages

The following are Digital Signal Processor (DSP) Resource Manager error messages.

**Error Message**

%IPM_DSPRM-3-ERROR_DSP_BOOTLDR_DNLD: Boot loader download failed for dsp [dec] in dsp group [dec]

**Explanation** The DSP boot loader firmware download was not successful.

**Recommended Action** Remove and reinstall the DSP module. If removal and reinstallation does not resolve the error, replace the DSP module.

**Error Message**

%IPM_DSPRM-3-ERROR_DSP_FW_DNLD: BAD restart indication received from dsp [dec] in dsp group [dec]

**Explanation** The DSP firmware download was not successful.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPM_DSPRM-3-ERROR_DSP_INIT: BAD init config response received from dsp [dec] in dsp group [dec]

**Explanation** The initial configuration has failed in the DSP firmware.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%IPM_DSPRM-3-ERROR_DSP_OPERATION: ALARM indication received from dsp [dec] in dsp group [dec]

**Explanation** The DSP has failed and has started an alarm.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%IPM_DSPRM-3-ERROR_FIRMWARE_DOWNLOAD: Could not bring DSP [dec] in DSP group [dec] in service

Explanation The DSP did not start after repeated attempts to download the firmware.

Recommended Action Check to see if the DSP has failed and reload the trunk. However, if this message persists, indicating a continuing condition, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPM_DSPRM-3-ERROR_NO_DSPResources: Insufficient DSP resources [chars]

Explanation DSP resources are not available either to open a voice channel or to run a voice codec.

Recommended Action Check the DSP resource usage and see if the total number of active calls has exceeded the limits.

Error Message
%IPM_DSPRM-3-ERROR_PORT_NOT_FOUND: Port [dec]/[dec] not found in any DSP group

Explanation A T1 port has not been added to any DSP group.

Recommended Action Check if tdm-clock has been configured for this port.

IPM_NV_EEPROM Messages

The following are integrated port module NVRAM driver error messages.

Error Message
%IPM_NV_EEPROM-3-BADNV: Detected invalid NVRAM size: [dec] bytes

Explanation The size of the specified NVRAM is not supported. The NVRAM may be defective.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPM_NV_EEPROM-3-NVERASEFAIL: Failed to erase config due to internal error

Explanation  The password protection feature has failed to erase the configuration because of an internal error.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

IPMOBILE Messages

The following are IP Mobility error messages.

Error Message
%IPMOBILE-2-ASSERTFAILED: IPMOBILE assertion failed: [chars]

Explanation  The software has detected an inconsistency that is considered a serious error. The system is attempting to continue, but IP Mobility processing may be impaired.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, noting any IP Mobility problems that you are experiencing. Contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPMOBILE-3-NOSOCKET: Unable to open socket

Explanation  The requested operation could not be accomplished because of insufficient memory.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%IPMOBILE-6-SECURE: Security violation on [chars] from [chars] [IP_address] - errcode [chars] ([dec]), reason [chars] ([dec])

Explanation  A security violation occurred during a registration attempt.

Recommended Action  This is an informational message only. No action is required.
IPRT Messages

The following are IP Routing error messages.

Error Message
%IPRT-3-BADCOMLIST: Community list check with bad list [dec]

Explanation  A user has specified an invalid BGP community list number.

Recommended Action  Check the system configuration to ensure that the specified community list falls within the valid range.

Error Message
%IPRT-2-COMPRESS: Bad route_compress() call, sdb= [hex]

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPRT-3-IPTABLEINIT: IP routing table creation failure - [chars]

Explanation  An internal software error is preventing the creation of a new IP routing table.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPRT-3-NOMEMORY: No memory available for [chars]

Explanation  The requested operation has failed because of insufficient memory.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%IPRT-3-PATHIDX: Bad path index of [dec] for [IP_address], [dec] max

Explanation  A software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPRT-4-ROUTECOUNTNEGATIVE: IP route counter negative - [chars], [IP_address]
Attempt: [dec]

Explanation  An attempt was made to decrement the IP route counter into a negative value.

Recommended Action  Use the clear ip route * command to reset the route counter. If this message persists, indicating a continuing condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPRT-3-ROUTELIMITEXCEEDED: IP routing table limit exceeded - [chars], [IP_address][IP_netmask]

Explanation  The number of routes in the specified IP routing table has reached the configured limit. No further routes will be added to the table.

Recommended Action  Reduce the number of routes in the table, or reconfigure the limit.

Error Message
%IPRT-3-ROUTELIMITWARNING: IP routing table limit warning - [chars]

Explanation  The number of routes in the named IP routing table has reached the configured warning limit.

Recommended Action  Reduce the number of routes in the table, or reconfigure the limit.

IP_SNMP Messages

The following are Simple Network Management Protocol (SNMP) error messages that are specific to IP.

Error Message
%IP_SNMP-4-NOTRAPIP: SNMP trap source [chars] has no ip address

Explanation  The user entered an snmp-server trap-source command. The interface that was requested to be used as the source address has no address associated with it. The SNMP trap is being sent anyway, but with a different source address from the one the user intended.

Recommended Action  There are two possible solutions. Either enter a no snmp-server trap-source command to disable the request for a specific source IP address or add an IP address to the interface referenced in the snmp-server trap-source configuration command.
IPX Messages

Error Message
%IP_SNMP-3-SOCKET: can’t open UDP socket

Explanation  The SNMP server was unable to open a port for receiving or transmitting SNMP requests. This error usually occurs when the SNMP server is started using the `snmp-server community` configuration command on a router or communication server with an interface that has no IP address configured. Another possible cause is low memory.

Recommended Action  Configure at least one interface with an IP address or specify the `no snmp-server` command to remove the SNMP server process. Contact your Cisco technical support representative if problems persist or if it becomes necessary to add memory.

Error Message
%IP_SNMP-4-TOOBIG: Oversize message from [IP_address], datagram size [int], udp length [int]

Explanation  An incoming SNMP packet had a length field that was so large that the system assumed it was in error. The system reacted correctly to bad external data. Since SNMP packets should originate from systems under the same administration, this situation may indicate that there was a problem in the networking layer of the network host used to originate the SNMP request. However, if the SNMP packet originated outside the local administrative domain, the error could indicate a failed attempt at security penetration, in which case that site should be watched more closely.

Recommended Action  If the origin is local, no action is required. If the origin is determined to be malicious, either contact the administrator of the originating site or install filters to prevent access by that site, as circumstances warrant.

IPX Messages

The following are Internetwork Packet Exchange (IPX) error messages.

Error Message
%IPX-3-BADCOUNT: Bad IPX server count. [chars] [dec], [chars] [dec]

Explanation  The internal SAP service count does not match the number of services currently present and displayed by the `show ipx servers` command.

Recommended Action  If this message recurs, report the problem to your Cisco technical support representative, along with the output of the `show ipx servers` command taken before the message appeared and again after the message appeared, and provide the representative with the gathered information.
**Error Message**

 `%IPX-3-BADHASHTABLE: Consistency check failed for SAP table [dec].`

**Explanation**  An internal SAP table consistency check has failed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

 `%IPX-3-BADIGRPSAP: Cannot send incremental SAP update to peer on [chars]. Increasing output-sap-delay may help`

**Explanation**  An incremental SAP update could not be sent because sending the update might cause the SAP tables between peers to lose synchronization.

**Recommended Action**  Increase the output SAP delay on the listed interface to reduce buffer usage. If the message remains after changing the delay, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

 `%IPX-3-BADIGRPSAPTYPE: Unsupported SAP type for EIGRP being [chars] - type [hex]`

**Explanation**  There are two types of service access points (SAPs): general queries and general responses. This message is sent when you receive or attempt to send an SAP with a type code that is neither a general query nor a general response. This message will also be sent when you receive a general query that is not addressed to the broadcast address.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. If possible, also provide the output of the *debug ipx sap activity* and *debug ipx sap event* commands for the period during which this message appeared.

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**Error Message**

 `%IPX-3-BADINSERT: Duplicate SAP entry insert attempted. [chars][chars] [chars][hex] [chars][hex] [chars][dec] [chars][hex] [chars][hex] [chars][hex]`

**Explanation**  The user attempted to add an IPX SAP service entry that already exists in the current internal table.

**Recommended Action**  Report the error messages and the tracebacks following them exactly as they appear on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%IPX-3-BADPATHS: Invalid number of paths ([dec]) for [APOLLO/XNS/UB]

Explanation  An internal inconsistency was detected in the IPX routing table structure.

Recommended Action  Copy and save this message. If possible, clear the IPX routing table by issuing the `clear ipx route` command. (This actions will result in the loss of connectivity until the routing table is rebuilt.) If this message recurs, copy the error message exactly as it appears on the console or in the system log including information from the `show ipx route` command. Contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPX-3-BADRDBDATA: Inconsistency in the [chars] LSP Linkage data structure detected.

Explanation  An internal inconsistency was detected in the data area used by the NLSP to link LSPs in the RDB or SRDB internal routing table structure.

Recommended Action  Copy and save this message. If NLSP is not running, this message could mean that there is a software or hardware problem that is corrupting memory. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IPX-6-NOVACCESSLOG: [chars] [chars] [chars] [chars] [hex].[enet] [chars] [hex].[enet] [dec] pkt[chars]

Explanation  If IPX access violation logging is enabled, this message is displayed when an access list logging event has occurred.

Recommended Action  Verify that the host system is permitted or denied access as defined in the access list.

Error Message
%IPX-3-TOOMANYNETS: Too many networks. The number of directly connected IPX networks cannot exceed [dec]

Explanation  The limit of connected IPX networks has been reached. There can be a maximum of 200 directly connected IPX networks. Additional IPX interfaces cannot be configured.

Recommended Action  Do not configure IPX on additional interfaces. Remove IPX configuration commands from inactive interfaces.
The following are Integrated Services Adapter (ISA) error messages.

**Error Message**

%ISA-1-ALIGN: Alignment failure on packet buffer: [hex]

**Explanation**  A software error has occurred. The ISA driver detected that the buffer is not aligned correctly.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ISA-1-ERROR: [chars]

**Explanation**  An error occurred in the application using ISA.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ISA-6-INFO: [chars]

**Explanation**  This is an informational message from ISA.

**Recommended Action**  No action is required.

**Error Message**

%ISA-1-INITDESCRING: Slot [dec]: The ISA driver failed to allocate "descriptor offsets" write_offsets: [hex], read_offsets: [hex], stored_offsets: [hex]

**Explanation**  The ISA driver has failed to initialize at the specified point.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ISA-1-INITFAIL: Slot [dec]: [chars]

**Explanation**  The ISA driver has failed to initialize at the specified point.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%ISA-1-NOMEMORY: [chars] creation failed for slot [dec]

Explanation  The ISA driver, in its initialization phase, could not allocate memory for the specified data structure.

Recommended Action  Consider adding more shared memory. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%ISA-1-OWNER: [chars] packet buffer, pak=[hex]

Explanation  A software or hardware error has occurred. The ISA driver detected that the buffer ring is in an inconsistent and unrecoverable state.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%ISA-6-SHUTDOWN: [chars] shutting down

Explanation  The specified ISA is shutting down. It may have been physically removed.

Recommended Action  No action is required.

Error Message
%ISA-1-TOOBIG: [chars] received a packet with size [dec].

Explanation  The system has received a packet that is larger than the allowed size.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are ISDN error messages.

**Error Message**

%ISDN-4-BAD_DSL_FOR_CREATE_DELETE_L2: [chars]:
isdncreate_delete_signalling_channel: Unknown DSL [int] for [chars]

**Explanation**  The creation or deletion service for the L2 signaling handler or the given DSL is missing.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%ISDN-6-CALL_COLLISION: Interface [chars] Call Cid [hex] Cref [hex] collision on Channel [dec] in_use_cid [hex] cref [hex], Channel awarded to the received call

**Explanation**  A call has been received and has collided with an existing call on the same channel.

**Recommended Action**  No action is required.

**Error Message**


**Explanation**  The channel specified for the new call is already in use.

**Recommended Action**  No action is required.

**Error Message**

%ISDN-6-CHAN_UNAVAILABLE: Interface [chars] Requested Channel [dec] is not available

**Explanation**  The requested channel is not available.

**Recommended Action**  No action is required.

**Error Message**

%ISDN-6-CONNECT: Interface [chars] is now connected to [chars] [chars]

**Explanation**  This is an informational message sent when a call is connected. The message displays the remote name and number, which it receives from the PPP authentication or from the location from which the dialer placed the call.

**Recommended Action**  No action is required.
**Error Message**

%ISDN-6-DISCONNECT: Interface [chars] disconnected from [chars] [chars], call lasted [int] seconds

**Explanation**  This is an informational message sent when a call is disconnected. This message displays the remote name and number, which it receives from the PPP authentication or from the location at which the dialer placed the call. This message also reports the duration of the call.

**Recommended Action**  No action is required.

**Error Message**

%ISDN-4-GET_STATUS_STATE_FAIL: [chars]: isdn_get_status_state: Unknown DSL [int]

**Explanation**  An attempt to retrieve the status of a DSL that is not currently configured has failed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%ISDN-4-INVALID_CALLEDNUMBER: Interface [chars], Ignoring call, LDN and Called Party Number mismatch

**Explanation**  The incoming ISDN call is ignored because the called party number does not match the LDN that is configured in the router.

**Recommended Action**  Correct the LDN in the router to match the called party number delivered in the incoming setup message.

**Error Message**

%ISDN-4-INVALID_EID: Interface [chars], Ignoring call, EndPoint Identifier (EID) mismatch

**Explanation**  The incoming ISDN call is ignored because the EID delivered in the incoming setup message cannot be matched.

**Recommended Action**  If the EID is delivered in the setup message, use the `isdn debugs` and `show isdn status` commands to determine the current EID values. Contact the service provider to report the condition.
Error Message
%ISDN-4-INVALID_EVENT: [chars]: Bad Event Received For Current State

Explanation  The state transition for the ISDN L2 socket process has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%ISDN-4-INVALID_SPID: Interface [chars], Spid[dec] was rejected

Explanation  The SPID configured in the router has been rejected by the switch.

Recommended Action  Determine the correct SPID, reenter the SPID, and clear the BRI interface.

Error Message
%ISDN-6-INVALID_TIMER: [chars]: Invalid Timer Handle, caller [hex] handle [dec]

Explanation  An invalid ISDN timer handle has been passed on for timer operations. This message may indicate a low memory condition.

Recommended Action  Enter the show isdn mem and show isdn status commands to gather debugging information. Reduce other system activity to ease the memory demands in the system.

Error Message
%ISDN-2-ISDN_GENERAL_TRACEBACK: [chars]:[dec]

Explanation  A debug traceback condition has occurred.

Recommended Action  No action is required.

Error Message
%ISDN-4-ISDN_L2_INTERFACE_NOT_REGISTERED: [chars]: isdn_to_L2: Unknown DSL [int] for command [chars]

Explanation  The ISDN stack has not registered its L2 message handler.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%ISDN-3-ISDN_RESOURCE_UNAVAILABLE: [chars]: Resource not available, at [chars]:[dec]

**Explanation**  A specified hardware resource could not be allocated.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%ISDN-4-ISDN_UNEXPECTED_EVENT: [chars]: Occurred at [chars]:[dec]

**Explanation**  An unexpected event of significance has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%ISDN-6-LAYER2DOWN: Layer 2 for Interface [chars], TEI [int] changed to down

**Explanation**  An ISDN Layer 2 logical link is down. The TEI associated with this logical link is shown.

**Recommended Action**  No action is required.

Error Message

%ISDN-6-LAYER2UP: Layer 2 for Interface [chars], TEI [int] changed to up

**Explanation**  An ISDN Layer 2 logical link is up. The TEI associated with this logical link is shown.

**Recommended Action**  No action is required.

Error Message

%ISDN-1-NOMEMORY: Unit [dec], no memory for [chars]

**Explanation**  The requested operation could not be accomplished because of insufficient memory.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%ISDN-6-NO_TIMER: No Free Timer Entry, caller [hex], timers used [dec]

**Explanation** The ISDN protocol cannot start new timers for its operation. This message may indicate a low memory condition.

**Recommended Action** Enter the `show isdn mem` and `show isdn status` commands to gather debugging information. Reduce other system activity to ease the memory demands on the system.

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Error Message
%ISDN-4-OPEN_TEMP_SOCKET_FAIL: [chars]: Failed to Open Required Temporary Socket[chars]

**Explanation** The reopen attempt for a required temporary socket has failed. Without this socket, the L2 socket process will fail.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

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Error Message
%ISDN-4-RLM_STATUS_CHANGE: ISDN SC [chars]: Status Changed to: [chars].

**Explanation** ISDN has been notified by the RLM component of a status change in the RLM link.

**Recommended Action** No action is required.

---

Error Message
%ISDN-4-SPURIOUS_CONNECT: [chars]: Spurious Connection Accepted and Closed on port [int]

**Explanation** An unknown TCP connection was accepted and then refused.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
IVR Messages

The following are Interactive Voice Response (IVR) error messages.

Error Message
%IVR-3-ABNORMAL_EXIT: TCL IVR Process PANIC: [chars], CallID [dec], Event [chars]

Explanation The TCL IVR call process has panicked and then exited abnormally.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%IVR-3-BAD_IVR_SIG: Script signature is invalid[chars] [chars]

Explanation This script does not have a valid signature.

Recommended Action Ensure that the script is Cisco-approved and has a signature.

Error Message
%IVR-3-BAD_IVR_VERSION: Script requires version [dec].[dec], image supports [dec].[dec]

Explanation The IVR script requires a later version of the IVR infrastructure.

Recommended Action Upgrade the Cisco IOS software or use a different script.

Error Message
%IVR-3-INVALID_SCRIPT: App [chars]: Invalid IVR script to handle callID [dec]

Explanation The call will be dropped because of an invalid script.

Recommended Action Ensure that the script exists on the server, is readable, and is supported.

Error Message

Explanation The system does not have enough memory to accept calls.

Recommended Action Check to see what condition is causing low system memory.
Error Message
%IVR-3-NO_IO_MEMORY: [chars]: Failed to create pool_group [hex] buffer_pool [hex]

Explanation  There is not enough I/O memory to create the IVR private pak pool.

Recommended Action  Ensure that there is enough I/O memory.

Error Message
%IVR-3-NOPROMPT: Could not create IVR prompt [chars] errno=[dec]=[chars]

Explanation  The IVR prompt could not be read.

Recommended Action  Ensure that the prompt exists on the server and is readable.

Error Message
%IVR-3-NOSCRIPT: Could not load IVR script [chars] errno=[dec]=[chars]

Explanation  The IVR script could not be read.

Recommended Action  Ensure that the script exists on the server and is readable.

KERBEROS Messages

The following are Voice over IP (VoIP) for Cisco AS5800 error messages.

Error Message
%KERBEROS-3-FORKFAIL: Failed to fork process for [chars].

Explanation  The system could not start a process. This message may indicate a low memory condition.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
KINEPAK Messages

The following are Voice over IP (VoIP) for Cisco AS5800 error messages.

Error Message

%KINEPAK-3-CONTIGUOUS: Contiguous packet sent for transmit

Explanation  A software error has occurred, causing an unexpected packet to be prepared for transmission and then dropped.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%KINEPAK-3-ERR_DSPWARE_DNLD: dsp[dec] cannot download dspware [chars]

Explanation  A software error has occurred and has caused a failure to download a DSP component.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%KINEPAK-3-ERR_DSPWARE_IMG: Cannot find dspware [chars] component

Explanation  A software error has occurred and has caused a failure to download a DSP component.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%KINEPAK-3-NODSPENTRY: No dsp entry in dsp list

Explanation  The software structure that is used to maintain the DSP instance is missing.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%KINEPAK-3-NOMAILELEMENTS: Cannot create message buffer

Explanation  A software error has occurred, resulting in failure to create the message buffer that sends messages among processes.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%KINEPAK-3-NOPARTICLE: No particle available for ingress packet

Explanation  A software error has occurred, resulting in failure to obtain a particle to hold an ingress packet from the DSP.

Recommended Action  If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%KINEPAK-3-NOPARTICLEPOOL: Cannot create particle pool

Explanation  A software error has occurred, resulting in failure to create the particle pool that receives packets from the DSP.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%KINEPAK-3-NORXPAK: Static receive paktype unavailable

Explanation  A software structure was found in an unexpected state during the runtime for the specified DSP.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
L2CAC Messages

The following are Layer 2 CAC error messages.

Error Message
%L2CAC-5-VC_BW_NOT_ENOUGH: VC [dec]/[dec] bandwidth is not enough. Total bandwidth is [dec] cps, but requires [dec] cps

Explanation There is not enough VC bandwidth to support a call.

Recommended Action Increase the bandwidth to accommodate new calls.

L2R Messages

The following are L2RLY error messages.

Error Message
%L2R-4-DROP_PAK: l2r uid [dec] drop packet (type [hex]) from/to uid [dec] when [chars]

Explanation A packet was dropped.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%L2R-4-FRAGMENT_ERROR: fragmentation error (s_uid = [hex]) received

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%L2R-4-INVALIDMSG: Invalid L2R message (msg_type [hex]) received from UID [dec] at line [dec]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Layer 3 manager error messages.

**Error Message**

%L3_MGR-3-FLUSH: L3 MGR flush error: [chars]

**Explanation** The Layer 3 manager has encountered a flush error.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%L3_MGR-3-ICC_ASYNC: L3 MGR async request failed: [chars]

**Explanation** The Layer 3 manager has received a null request failure message.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%L3_MGR-3-L2_FLUSH_ENTRY: L3 MGR install l2 flush entry: [chars]

**Explanation** The Layer 3 manager has received a “failed status” message.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%L3_MGR-3-NULL_SVI: L3 MGR svi allocation error: [chars]

**Explanation** The Layer 3 manager cannot allocate an SVI.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%L3_MGR-3-NULL_VLAN: L3 MGR vlan allocation error: [chars]

**Explanation** The Layer 3 manager cannot allocate VLAN.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%L3_MGR-3-REQ_SEND: L3 MGR SEND error : [chars]

Explanation   The Layer 3 manager has failed to send out the specified request.

Recommended Action   If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%L3_MGR-3-RSP_RCVD: L3 MGR RCVD error: [chars]

Explanation   The Layer 3 manager has received an error packet.

Recommended Action   If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%L3_MGR-3-SW_SHORTCUT: L3 MGR install sw shortcut: [chars]

Explanation   The Layer 3 manager has received a bad status message.

Recommended Action   If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

LANCE Messages

The following are LAN Controller Ethernet error messages.

Error Message
%LANCE-4-BABBLE: Unit [dec], babble error, csr0 = [hex]

Explanation   An Ethernet interface is malfunctioning.

Recommended Action   Determine whether the malfunction stems from a software or hardware error by turning off all fast switching. Error messages showing that the packet is too large for the link indicate that a software error has occurred at a high level. Receiving no error messages indicates that a hardware error has occurred. Repair or replace the controller. If you receive an error message, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LANCE-3-BADCABLE: Unit [dec], Transmits stalled. Check ethernet cable connection

Explanation  The Ethernet cable is not connected.

Recommended Action  Check the Ethernet cable connection.

Error Message
%LANCE-3-BADUNIT: Bad unit number [dec]

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LANCE-5-COLL: Unit [dec], excessive collisions. TDR=[dec]

Explanation  An Ethernet cable is broken or unterminated, or the transceiver is unplugged. The TDR counter is an internal LANCE counter that counts the time (in ticks of 100 ns each) from the start of a transmission to the occurrence of a collision. Because a transmission travels about 35 feet per tick, this value is useful to determine the approximate distance to a cable fault.

Recommended Action  If the transceiver appears to be properly terminated, repair or replace the Ethernet interface card.

Error Message
%LANCE-1-INITFAIL: Unit [dec], initialization timeout failure, csr[dec]=[hex]

Explanation  The hardware has failed to initialize correctly.

Recommended Action  Repair or replace the controller.

Error Message
%LANCE-5-LATECOLL: Unit [dec], late collision error

Explanation  An Ethernet transceiver is malfunctioning, the Ethernet is overloaded, or the Ethernet cable is too long.

Recommended Action  Repair or replace the controller.

Error Message
%LANCE-5-LOSTCARR: Unit [dec], lost carrier. Transceiver problem?

Explanation  An Ethernet transceiver is unplugged or defective.

Recommended Action  Repair or replace the controller.
Error Message
%LANCE-1-MEMERR: Unit [dec], memory error, csr[dec]=[hex]

Explanation An Ethernet interface has detected a hardware problem.

Recommended Action Repair or replace the controller.

Error Message
%LANCE-3-OWNERR: Unit [dec], buffer ownership error, pak = [hex]

Explanation An Ethernet interface is malfunctioning, or an internal software error has occurred.

Recommended Action Repair or replace the controller.

Error Message
%LANCE-3-SPURIDON: Unit [dec], spurious IDON interrupt, csr[dec]=hex]

Explanation An Ethernet interface has generated a spurious Initialization Done interrupt.

Recommended Action Repair or replace the controller.

Error Message
%LANCE-3-UNDERFLO: Unit [dec], underflow error

Explanation The Ethernet hardware is requesting data faster than the system can supply it. This condition might indicate that the system is at the limit of its performance.

Recommended Action A small number of underflows might not be a cause for concern. You can monitor underflows with the show interface command. Reducing the load on the router or installing a higher-performance router should alleviate this problem.

LANE Messages

The following are LAN emulation (LANE) error messages.

Error Message
%LANCE-3-BADILMI: Unexpected ILMI event [dec]

Explanation An internal error has occurred.

Recommended Action Download the system error log. Then contact your Cisco technical support representative and provide the representative with the log, the error message, and the router configuration.
Error Message
%LANE-3-BADNAME: ELAN name must be 1-32 characters long

Explanation A name that is longer than 32 characters identifying a LANE component has been entered by the user.

Recommended Action Reenter a shorter name.

Error Message
%LANE-3-BADTYPE: Inappropriate LAN type

Explanation An unexpected LAN type has been specified for a LANE component. Only Ethernet and Token Ring ELANs are supported.

Recommended Action Specify a valid LAN type.

Error Message
%LANE-6-INFO: [chars]

Explanation This is an informational message about the LANE subsystem.

Recommended Action No action is required.

Error Message
%LANE-3-LANE_ERROR: [chars]

Explanation An internal error has occurred, indicating an inconsistency in the system that requires attention.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LANE-3-LANE_SIG_ERR: [chars]

Explanation An internal error has occurred while system routines were handling ATM signaling messages for LANE.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LANE-3-LEC_BADAD: [chars] LEC unable to compute ATM address

Explanation   The client cannot obtain an ATM address from the given configuration, or the
autoassignment has failed to get an ATM prefix from the switch.

Recommended Action  If you expect the switch to assign the prefix to the router, ensure that the ILMI
is functional and the switch has a prefix configured. Otherwise, confirm that the client has an address
in the NVRAM configuration.

Error Message
%LANE-3-LEC_BAD_CTL_DIST_TYPE: [chars] CTL DIST blli type wrong

Explanation   An incorrect BLLI value was specified on the incoming circuit.

Recommended Action  The originator of the circuit is not using the correct BLLI value for this type of
circuit. The LANE standard defines these values, and the originator is violating the standard.

Error Message
%LANE-3-LEC_CFG: [chars] CFG_REQ failed, [chars] (LECS returned [dec])

Explanation   The master LECS has refused the configuration request of the LEC.

Recommended Action  Check your LECS configurations.

Error Message
%LANE-3-LEC_CONTROL_MSG: Received bad control message on interface [chars]

Explanation   The LANE client has received an unexpected or inappropriate control message over one
of its VCs.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.

Error Message
%LANE-3-LEC_ERR: [chars]

Explanation   A LANE client software or hardware error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.
Error Message
%LANE-6-LEC_INFO: [chars]

Explanation This is an information message about the LANE client.

Recommended Action No action is required.

Error Message
%LANE-3-LEC_JOIN: [chars] JOIN failed, [chars] (LES returned [dec])

Explanation The request of a LANE client to join its emulated ELAN has been rejected.

Recommended Action This message may be the result of user configuration errors (such as the LANE client attempting to join an incorrect ELAN or the ELAN not being configured in the LAN Emulation Server) or there were validation failures with the LAN Emulation Configuration Server (LECS).

Error Message
%LANE-3-LEC_LISTEN: [chars] listen failed on [chars]

Explanation The LANE client could not register its address with ATM signaling to be able to accept calls on that address.

Recommended Action Reconfigure the client ATM address, which may be in conflict with another component that has the same ATM address.

Error Message
%LANE-3-LEC_RD_REGISTER: [chars] RD REGISTER failed for Route Descriptor [hex]

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LANE-3-LEC_REGISTER: [chars] REGISTER failed, [chars] (LES returned [dec])

Explanation An attempt to register a MAC-ATM address binding with the LES has failed.

Recommended Action The LES has already registered the requested MAC address-ATM address binding.
Error Message
%LANE-3-LECS_ERROR: [chars]

Explanation  An internal consistency error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LANE-3-LEC_SIGNAL: Unexpected SigAPI event [dec]

Explanation  ATM signaling has sent the LANE client an unexpected message type.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LANE-6-LECS_INFO: [chars]

Explanation  This is an informational message about the LECS.

Recommended Action  No action is required.

Error Message
%LANE-4-LECS_WARNING: [chars]

Explanation  The LECS address could not be registered with or deregistered from the switch using ILMI. The following reasons are possible:

- The switch prefix is not available.
- The address is not acceptable to the switch (the prefix does not conform).
- The interface over which this operation should take place is down.
- The ILMI subsystem on the router is not completely initialized.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LANE-3-LEC_WRONG_ELAN_ID: [chars]: elan id mismatch: LECS indicates [int], LES indicates [int]

Explanation  The ELAN-ID returned by the LES does not match the value given by the LECS or by the CLI.

Recommended Action  Check the ELAN-ID configurations specified in the LECS database and the LES. The mismatch may be the result of misconfiguration.
**Error Message**

%LANE-3-LES_ERROR: [chars]

**Explanation** A serious internal error has occurred with the LES or BUS.

**Recommended Action** Download the system error log. Then contact your Cisco technical support representative and provide the representative with the log, the error message, and the router configuration.

**Error Message**

%LANE-6-LES_INFO: [chars]

**Explanation** This is an informational message about the LES.

**Recommended Action** No action is required.

**Error Message**

%LANE-3-LSV_ADDR: [chars] elan [chars] unable to register LES/BUS ATM addr

**Explanation** The LANE server or BUS could not register its address with the ILMI.

**Recommended Action** Investigate why this error has occurred. The error may have occurred because a user-defined override address does not conform to the switch prefix or because there is a problem with the ATM switch with which the entity is registering.

**Error Message**

%LANE-3-LSV_BADAD: [chars] elan [chars] unable to compute [chars] ATM address

**Explanation** The software was unable to compute an ATM address based on the ATM address template given. The text in [brackets] will be either *BUS*, *server*, or *config server* in the actual error message.

**Explanation** Enter a correct ATM address template for the LANE component (*BUS, server, or config server*) named in the error message.

**Error Message**

%LANE-3-LSV_CRASH: [chars] elan [chars] unrecoverable error [chars]

**Explanation** A serious LES or BUS internal error has occurred.

**Recommended Action** Download the system error log. Then contact your Cisco technical support representative, and provide the representative with the log, the error message, and the router configuration.
Error Message
%LANE-4-LSV_LECID: [chars] elan [chars] LECIDs exhausted

Explanation The LANE server specified has 65,279 clients. No more can be added.

Recommended Action Change the configuration to avoid trying to have more than 65,279 LANE clients on this server.

Error Message
%LANE-3-NAMECHG: A LANE Client is already running here using another elan name

Explanation Both the LANE client and the LANE server or BUS may have an emulated LAN name specified in the configuration because of the use of the \texttt{lane server-bus} and \texttt{lane client} commands. If both client and server specify the emulated LAN name, the name cannot be changed by reentering just one of the commands.

Recommended Action Use the \texttt{no lane server-bus} command to delete the LANE server or the \texttt{no lane client} command to delete the client. Then reenter the other of the two commands with another emulated LAN name. Finally, reenter the deleted command with the new emulated LAN name.

Error Message
%LANE-3-NOILMI: ILMI service registration failed

Explanation The ILMI feature is either not included in the Cisco IOS software image running on the router or it is not functioning properly.

Recommended Action Download the system error log. Then contact your Cisco technical support representative, and provide the representative with the log, the error message, and the router configuration.

Error Message
%LANE-3-NOINT: [chars] still destroying old sub-interface

Explanation An attempt was made to create a new subinterface while a previous version of the subinterface was still being destroyed.

Recommended Action Wait a minute and try again. If failure still occurs, try shutting down the main interface. In extreme cases, recovery may require rebooting.
Error Message
%LANE-3-NOREGILMI: [chars] [chars] cannot register [time-of-day]j with ILMI

Explanation  An attempt to register the given ATM address with the ATM switch has failed. This failure can occur because the ATM switch is down or configured incorrectly. The registration will be retried.

Recommended Action  If the situation persists after a number of attempts, and the switch is up, the configuration of the switch and router should be examined. A likely cause is that the ATM address being registered is not compatible with the parameters configured in the switch. Correct the configuration.

Error Message
%LANE-3-TYPECHG: A LANE Client is already running here using another elan type

Explanation  Both the LANE client and the LANE Server or BUS may have an ELAN type specified in the configuration as a result of using the lane server-bus and lane client commands as either Ethernet or Token Ring. If both are configured, specify the type; the type cannot be changed by reentering just one of the commands.

Recommended Action  Use the no lane server-bus command to delete the BUS or the no lane client command to delete the client. Then the other of the two commands can be reentered with a new type. Finally, reenter the deleted command with the new type.

Error Message
%LANE-5-UPDOWN: [chars] [chars] [chars]: [chars] changed state to [chars]

Explanation  A LANE component has changed state to up or down.

Recommended Action  If this event is expected, take no action. Otherwise, contact a Cisco technical support representative.

LANMGR Messages

The following are IBM LAN Network Manager error messages.

Error Message
%LANMGR-4-BADRNGNUM: Ring number mismatch on [chars], shutting down the interface

Explanation  The router has detected a conflict in the assigned ring numbers for the specified Token Ring. The RPS function was shut down to prevent potentially incorrect information from being sourced onto the ring.

Recommended Action  Check all bridges connected to this Token Ring and ensure that they are using the same assigned ring number.
**LAPB Messages**

The following are X.25 Link Access Procedure, Balanced (LAPB) error messages.

**Error Message**

%LAPB-3-BADPAYLOAD: Interface [chars], Invalid payload value: [chars]

*Explanation*  An internal software error has occurred.

*Recommended Action*  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Cisco IOS System Error Messages, Volume 1 of 2**
Error Message
%LAPB-4-CTRLBAD: Interface [chars], Invalid control field

Explanation A received FRMR has reported a frame with an invalid control code.

Recommended Action Check the serial line and the devices attached to the line.

Error Message
%LAPB-4-FRAMEERR: Interface [chars], Frame error: CF [hex], VS [dec] [char] VR [dec], Reason [hex]

Explanation A FRMR frame was received, indicating that a protocol violation has been detected. The Reason field will be interpreted by generating INFOBAD, CTRLBAD, N1TOOBIG, or INVNR messages immediately after this message; refer to the explanations for these messages for more information.

Recommended Action The protocol will recover by resetting the service. Resetting the device will disrupt any network service on top of FRMR. For example, X.25 virtual circuits will be cleared. Follow the recommended action for any error message that follow the FRMR reports. If service becomes unacceptable, check the serial line and its attached devices.

Error Message
%LAPB-4-INFOBAD: Interface [chars], Info field not permitted

Explanation A received FRMR frame reported that an information field was present in a frame on which no information field is allowed.

Recommended Action Check the serial line and the device attached to the line.

Error Message
%LAPB-4-INVNR: Interface [chars], Invalid NR value

Explanation A received FRMR reported a frame with an invalid N(R) value.

Recommended Action Verify that the equipment attached to the serial line is configured with the same K value (maximum number of outstanding I frames).

Error Message
%LAPB-4-N1TOOBIG: Interface [chars], N1 too large

Explanation A received FRMR reported an information frame that was too long.

Recommended Action Verify that the equipment attached to the serial line is configured with the same N1 value. N1 is in bits and includes the entire frame plus 16 bits of CRC. However, some equipment may require configuration in octets, the omission of the two CRC octets, or the omission of the three octets of LAPB control information.
LAPP OFF Messages

Error Message
%LAPB-2-NOBUF: Interface [chars], no buffer available to [chars]

Explanation There was insufficient memory for the LAPB protocol engine to send a message.

Recommended Action This message is acceptable if it occurs infrequently, because the LAPB protocol is designed to handle the loss of frames. However, frequent occurrences of the problem can cause a disruption of service. Configure the system to ease the memory demands or, if conditions warrant, upgrade the system to a larger memory configuration.

Error Message
%LAPB-3-NOINPIDB: Input idb not set

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAPB-3-NULLPAK: Interface [chars], NULL packet ptr, rvr [dec], vs [dec], vr [dec]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

LAPP OFF Messages

The following are fax offramp calls error messages.

Error Message
%LAPP_OFF-2-INTERNAL_ERROR: Internal software error, [chars]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LAPP_OFF-4-LAPP_OFF_BAD_MESSAGE: LAPP_OFF- Bad message received
   Explanation An unexpected message has been received.
   Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAPP_OFF-6-LAPP_OFF_CAUSE_ABNORMAL: Call aborted
   Explanation A call has been aborted.
   Recommended Action No action is required.

Error Message
%LAPP_OFF-6-LAPP_OFF_CAUSE_NORMAL: Normal call clearing
   Explanation A normal call clearing has occurred.
   Recommended Action No action is required.

Error Message
%LAPP_OFF-6-LAPP_OFF_HANDOFF: T.37 Fax off-ramp call initiated
   Explanation A fax offramp call has been initiated.
   Recommended Action No action is required.

Error Message
%LAPP_OFF-2-LAPP_OFF_INTERNAL_ERROR: Internal software error, [chars], cid=[dec]
   Explanation An internal software error has occurred.
   Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAPP_OFF-4-LAPP_OFF_NO_SMTP: mmsp- Can’t connect to the SMTP server
   Explanation An attempt to create a connection to the specified SMTP server has failed.
   Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LAPP_OFF-4-LAPP_OFF_NO_SMTP_SEND: FAXMAIL- Could not send data to the SMTP server

Explanation  A connection to the SMTP server has been created, but no data can be sent.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAPP_OFF-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%LAPP_OFF-4-SMTP_NOT_CONNECTED: SMTP- failed [chars], [dec]

Explanation  An attempt to connect to a remote mail server has failed.

Recommended Action  No action is required.

Error Message
%LAPP_OFF-6-SMTP_OPEN: SMTP- opening [chars], [dec]

Explanation  A connection is being attempted.

Recommended Action  No action is required.

LAPP_ON_MSGS Messages

The following are fax onramp calls error messages.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_AUTH_FAILED: User authentication failed

Explanation  User authentication has failed.

Recommended Action  No action is required.
Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_DMSP_DISCONNECTED: Document Media Service (DMSP) disconnected

   Explanation  The DMSP has been disconnected.

   Recommended Action  No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_DMSP_DISCONNECTED_NO_ROUTE: DMSP - no route - likely - ESMTP client did not connect to remote server

   Explanation  The ESMTP client did not connect to the remote server.

   Recommended Action  No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_FMSP_DISCONNECTED: Fax protocol (FMSP) disconnected

   Explanation  The FMSP has been disconnected.

   Recommended Action  No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_INTERNAL: Internal error occurred

   Explanation  An internal software error has occurred.

   Recommended Action  No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_NO_ESMTP_CONNECT: ESMTP client did not connect or lost connection to remote server

   Explanation  The ESMTP client did not connect to or has lost its connection to the remote server.

   Recommended Action  No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_NO_MEMORY: No memory available

   Explanation  A memory shortage has occurred.

   Recommended Action  No action is required.
LAT Messages

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_NORMAL: Normal call clearing

Explanation A normal call clearing operation has occurred.

Recommended Action No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_VTSP_DISCONNECTED: Telephony interface (VTSP) disconnected

Explanation The telephony interface has been disconnected.

Recommended Action No action is required.

Error Message
%LAPP_ON_MSGS-6-LAPP_ON_HANDOFF: T.37 Fax on-ramp call initiated

Explanation A fax onramp call has been initiated.

Recommended Action No action is required.

LAT Messages

The following are DEC Local Area Transport (LAT) error messages.

Error Message
%LAT-3-BADDATA: Tty[t-line], Data pointer does not correspond to current packet

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAT-3-BUFFULL: Tty[t-line], data buffer full with count [dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LAT-3-NOSYNC: Tty[t-line], Output data ptrs out of sync with byte count

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAT-3-NULLIDB: Null IDB pointer with destination [enet]

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAT-3-QBSPACED: Queue block at [hex] not found for HI connection

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LAT-3-REUSE: Tty[t-line], Attempt to re-use slot array, empty = [dec], fill = [dec]

Explanation  An internal software error has occurred.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
LC Messages

The following are line card error messages.

Error Message


Explanation A software or hardware error has occurred on the line card in the Buffer Management ASIC. The Buffer Management ASIC provides packet buffering and buffer queue management functions to the line card.

Recommended Action Run diagnostic tests on the line card by entering the `diag slot-number verbose` command, with `slot-number` being the slot number of the line card, in privileged EXEC mode. Replace the card if it fails the diagnostic tests. Note that the line card will be disabled for the duration of the diagnostics. Enter the `hw-module slot reload` command in privileged EXEC mode if the card remains disabled after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-BMA48ERRS: [chars] BMA48 [chars] error [hex]

Explanation A software or hardware error has occurred on the line card in the Buffer Management ASIC. The Buffer Management ASIC provides packet buffering and buffer queue management functions to the line card.

Recommended Action Run diagnostic tests on the line card by entering the `diag slot-number verbose` command, with `slot-number` being the slot number of the line card, in privileged EXEC mode. Replace the card if it fails the diagnostic tests. Note that the line card will be disabled for the duration of the diagnostics. Enter the `hw-module slot reload` command in privileged EXEC mode if the card remains disabled after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

Explanation  An error has occurred in the BMA.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-BMABUFF: [chars] BMA has [int] buffers in queue [int] when maximum of [int] are allowed

Explanation  The number of buffers in one of the BMA queues has overflowed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-BMACMDFTCH: Problem in BMA command fetching, status=[dec] [chars] BMA

Explanation  The BMA has encountered problems as it tries to fetch the given command. Multiple occurrences of this message may indicate a hardware problem. The GRP should recognize that communication with the LC was lost and reload it.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-BMACMDLOST: [chars] BMA has lost a command

Explanation  The Buffer Management ASIC specified in the error message has lost a command. The Buffer Management ASIC provides packet buffering and buffer queue management functions to the line card. Multiple occurrences of this message may indicate a hardware problem. The GRP should recognize that communication with the LC was lost and reload it. These messages are merely informational; most of the time this message is received because of other issues occurring in the router. For example, a failed Clock Scheduler Card will cause a switch over to the redundant Clock Scheduler Card, and during the switchover, some line cards could report that a Buffer Management ASIC command was lost. All the messages appearing in the logs should be investigated as well, as they might indicate the reason of the failure.

Recommended Action  If the analysis of the other messages does not indicate the reason of the problem or if there are only BMA-related error messages, an analytical troubleshooting procedure is required. Perform diagnostic tests on the line card by entering the diag slot-number verbose command, with slot-number being the slot number of the line card in privileged EXEC mode. Replace the card if it fails the diagnostic tests. Note that the line card will be disabled for the duration of the diagnostics. Enter the hw-module slot reload command in privileged EXEC mode if the card remains disabled
after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%LC-3-BMACMDRPLY: Problem in BMA reply to command type [dec] [chars] BMA sequence no=[dec]

**Explanation**  
A command was sent to the Buffer Management ASIC but a problem occurred with the reply that was received from the Buffer Management ASIC. The Buffer Management ASIC provides packet buffering and buffer queue management functions to the line card. Multiple occurrences of this message may indicate a hardware problem. The GRP should recognize that communication with the LC was lost and reload it. These messages are merely informational; most of the time this message is received because of other issues occurring in the router. For example, a failed Clock Scheduler Card will cause a switch over to the redundant Clock Scheduler Card, and during the switchover, some line cards could report that there was a problem with a reply received from the Buffer Management ASIC. All the messages appearing in the logs should be investigated as well, as they might indicate the reason of the failure.

**Recommended Action**  
If the analysis of the other messages does not indicate the reason of the problem or if there are only BMA-related error messages, an analytical troubleshooting procedure is required. Perform diagnostic tests on the line card by entering the `diag slot-number verbose` command, with `slot-number` being the slot number of the line card in privileged EXEC mode. Replace the card if it fails the diagnostic tests. Note that the line card will be disabled for the duration of the diagnostics. Enter the `hw-module slot reload` command in privileged EXEC mode if the card remains disabled after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**


**Explanation**  
An error has occurred in the BMA.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LC-3-BMAERRS: [chars] BMA [chars] error [hex]

Explanation  A software or hardware error has occurred on the line card.

Recommended Action  Run diagnostic tests on the line card by entering the diag slot-number verbose EXEC command, and replace the card if it fails the tests. Note that the line card will be disabled for the duration of the diagnostics. Use the hw-module slot reload EXEC command if the card remains disabled after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the show tech-support command, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-BMAERRSS: [chars] BMA [chars] error [hex] [chars] [hex]

Explanation  A software or hardware error has occurred on the line card.

Recommended Action  Run diagnostic tests on the line card by entering the diag slot-number verbose EXEC command, and replace the card if it fails the tests. Note that the line card will be disabled for the duration of the diagnostics. Use the hw-module slot reload EXEC command if the card remains disabled after the tests. If the card passes the tests, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem still occurs after the upgrade, copy the error message text and the output of the diagnostic tests exactly as they appear on the console or in the system log, enter the show tech-support command, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-BMASDRAM_BADCAS_LATENCY: [chars] DIMMs do not support CAS latency needed. got [hex]

Explanation  The SDRAM DIMM modules that are installed in the BMA SDRAM DIMM sockets do not support the CAS latency required. CAS latency is specified in the DIMM EEPROM as a number. When converted to a binary number, each bit corresponds to one CAS latency. Bit 2 must be set to 1, indicating that a CAS latency of 3 is supported.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%LC-3-BMASDRAM_BADSIZE: [chars] DIMMs are of unsupported size. Read this: rows [dec], cols [dec], DIMM banks [dec], SDRAM Device banks [dec]

Explanation The SDRAM DIMM modules that are installed in the BMA SDRAM DIMM sockets are of an unsupported size.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-BMASDRAM_BADWIDTH: [chars] DIMMs have unsupported data width, expected [dec], got [dec]

Explanation The SDRAM DIMM modules that are installed in the BMA SDRAM DIMM sockets have unsupported data width.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-BMASDRAM_NOTMATCH: [chars] SDRAM DIMMs do not match

Explanation The SDRAM DIMM modules that are installed in “to Fabric” or “from Fabric” BMA DIMM0 and DIMM1 sockets do not match. The DIMMs on one side (to Fabric) could be different from the DIMMs on the other side (from Fabric), but the two DIMMs on the same side have to be identical. Also, all four DIMMs must be mounted and making proper contact.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-BMAUCODE_GET: [chars] BMA: feature [chars], line card type "[chars]", could not get [chars] BMA microcode

Explanation When the bma microcode download command was issued, the given BMA microcode bundled in the image was not received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%LC-3-BMAUCODE_LCTYPE: [chars] BMA: feature [chars], specified linecard type(s) ([hex]) != current ([hex])

Explanation  When the **bma microcode download** command was issued, there was a mismatch between what was specified in the BMA microcode file and the current type of line card.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-BMAUCODE_NULL: Null downloaded BMA microcode

Explanation  When the **bma microcode download** command was issued, the specified BMA microcode bundled in the image was not retrieved because it is null.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-CARVE_BUFHDRS: [chars] BMA: out of SDRAM buffer headers

Explanation  The system ran out of available SDRAM buffer headers as it attempted to carve buffers. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-CARVE_BUFSIZE: [chars] BMA: illegal specified/real SDRAM buffer size(s) = ([int],[int]). Range=([dec],[dec])

Explanation  The calculated SDRAM buffer size (in bytes and including header and data portions) is not within the given range. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LC-3-CARVE_EXBUFS: [chars] BMA: [int] SDRAM buffers > max ([int])

Explanation  The maximum number of SDRAM buffer headers has been exceeded. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-CARVE_EXFREEQS: [chars] BMA: [int] free queues > max ([int])

Explanation  The number of free queues allowed for SDRAM buffer carving has been exceeded. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-CARVE_EXPCT: [chars] BMA: [int] sum SDRAM buffer percentages > 100

Explanation  The sum of percentages per SDRAM buffer size has exceeded 100. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-CARVE_EXSDRAM: [chars] BMA: used SDRAM ([int] bytes) > available for carve ([int] bytes)

Explanation  The calculated sum of SDRAM to be carved is larger than the available SDRAM for carving. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-4-CARVE_JVMASK: [chars] BMA: suspect return value [dec] on quiesce-for-carve

Explanation  The BMA quiesce-for-carve algorithm retrieved a bad jump vector mask return value. This problem could indicate an error in the quiesce.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LC-3-CARVE_NOFREEQS: [chars] BMA: no more free queues

Explanation  There are no more available free queues that can be used for SDRAM buffer carve. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-CARVE_PARMS: [chars] BMA: >= 1 SDRAM bufmem parameters == 0

Explanation  An internal parameter error has occurred with one or more of the following SDRAM buffer memory parameters: maximum buffer header count or SDRAM sizes (total, not available for carve, and available for carve).

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-CARVE_QELEM: [chars] BMA: [int] Queue Manager SRAM elements > max ([int])

Explanation  The system has run out of Queue Manager elements, which are used for synchronous SDRAM buffer carving. This problem may have been caused by an SDRAM buffer carve failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-CARVE_QMREAD: BMA address [hex]: Queue Manager SRAM [hex], read error(s)

Explanation  An error has occurred during the Queue Manager SRAM initialization. Reading one or more zeroed Queue Manager SRAM locations gave a nonzero result. Errors are possible in the head, tail, length, length threshold, buffer address, next queue element, and scratch RAM locations.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LC-4-CARVE_TIME: [chars] BMA: quiesce-for-carve exceeded timeout ([dec] ms) in [chars] loop, [dec] times

Explanation The BMA quiesce-for-carve algorithm waits an allotted time for line card queues to flush. One or more waits have exceeded this allotted time. These queues are specific to the ASICs of the line card. This error message may not actually indicate an error; the allotted time may be insufficient and therefore may need to be increased.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-DOWNREV: BMA is an old version.

Explanation The system software has detected an old version of the BMA.

Recommended Action Contact your Cisco technical support for an upgraded version of the BMA.

Error Message
%LC-3-IICDEV_NOTACKADDR: IIC Device [dec] failed to ack address

Explanation The BMA SDRAM DIMM has failed to acknowledge an address. An SDRAM IIC bus protocol error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-IICDEV_NOTACKREAD: IIC Device [dec] failed to ack read command

Explanation The BMA SDRAM DIMM has failed to acknowledge the read command. An SDRAM IIC bus protocol error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-IICDEV_NOTRESPOND: IIC Device [dec] does not respond, perhaps absent

Explanation The BMA SDRAM DIMM does not respond and perhaps is missing.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LC-3-INIT_CARD_TYPE: Unknown card type ([hex])

Explanation A card either was manufactured improperly, has failed, or is newer than the software.

Recommended Action Replace the card or upgrade the software.

Error Message
%LC-3-INIT_MEM: Memory failure, addr [hex], read [hex][hex], not [hex][hex]

Explanation The initialization of the memory address has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-INIT_READ: Error reading memory at [hex]

Explanation The specified memory location could not be read.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-INIT_RESET: Failed to take line card out of reset

Explanation The initialization of the line card I/O registers has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-INIT_ZERO: No bytes to write to location [hex]

Explanation No bytes were written to the specified location.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%LC-3-INVQ: Invalid local output queue: [hex] [hex] [hex] [hex] [hex] [hex]

**Explanation** The specified packet was routed to an invalid queue. The data shown in this message is the packet header.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**


**Explanation** An error has occurred in the Layer 3 Forwarding Engine ASIC of the line card. This message will occur along with another message that will provide more information about the location of the parity error.

**Recommended Action** If this message appears frequently, replace the line card. This message indicates a hardware issue with the Layer 3 forwarding engine on the line card.

**Error Message**

%LC-3-L3FEERRS: L3FE [chars] error [hex] address [hex]

**Explanation** An error has occurred in the Layer 3 Forwarding Engine ASIC of the line card. This message will give the location of the parity error (most of the time the error occurred at the CPU DRAM).

**Recommended Action** If this message appears frequently, replace the line card. This message indicates a hardware issue with the Layer 3 forwarding engine on the line card.

**Error Message**

%LC-3-LC_CODE_DLDALLOC: Failed buffer allocation for code download

**Explanation** The system could not allocate a data buffer to contain the contents of the given line card file that was downloaded. There may be insufficient DRAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%LC-3-LC_CODE_DLD_CHKSUM: code download IPC data checksum error

**Explanation** The glc code download command has failed the checksum verification.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LC-3-LC_CODE_PROG: no downloaded code to program

Explanation  The glc code download command has failed. There is no downloaded code to program.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-LC_FLASH_PROG_ALLOC: Can’t allocate [chars]

Explanation  When the glc flash program command was entered, the watch queue, buffer, or process creation failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

Explanation  Memory corruption has been detected.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

Explanation  Memory corruption has been detected.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LC-3-MACSTR: Adj/midb ([chars]) incorrect macstring: length=[dec], macstr word=[hex]

Explanation  The line card CEF or MDS has received an adjacency or midb that contains an invalid MAC rewrite string. Packets forwarded to that adjacency or midb will be dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%LC-3-MLLC: Channel or Port [int]: [chars] malloc failure

Explanation  A memory allocation failure has occurred on the LC.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-OUTINFO: Adj/midb([chars]): incorrect output_info=[hex] maclen=[dec]

Explanation  The line card CEF or MDS has received an adjacency or midb that contains an invalid OUTPUT_INFO field. Packets forwarded to that adjacency or midb will be dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-PARITYERRTM48: Parity error in memory encountered

Explanation  A one-bit memory corruption has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-3-SELECTOR: [dec]: unknown BMA selector value

Explanation  An unknown BMA selector value has been encountered.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LC-1-TESTALERT: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the test logger command.
Error Message
%LC-2-TESTCRIT: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the test logger command.

---

Error Message
%LC-7-TESTDEBUG: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the test logger command.

---

Error Message
%LC-0-TESTEMERG: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the test logger command.

---

Error Message
%LC-3-TESTERR: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the test logger command.

---

Error Message
%LC-6-TESTINFO: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the test logger command.

---

Error Message
%LC-5-TESTNOTICE: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the LC test logger command.

---

Error Message
%LC-4-TESTWARNING: [chars]

Explanation  This is a test message for a software test.

Recommended Action  Stop issuing the LC test logger command.
LCB Messages

The following are Line Control Block (LCB) event process error messages.

Error Message

%LCB-3-LOCKFAILURE: Multiple LCB event processes scheduled

Explanation  The LCB event process has failed to lock the semaphore that is used to prevent multiple LCB processes from running. Multiple LCB processes have been scheduled to run when they should not have been allowed to run at the same time.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LCB-3-QUEUEFAILURE: LCB process unable to create event queue

Explanation  The system could not create an LCB event queue, and the LCB process has quit. The operating system was unable to allocate adequate RAM space for the queue.

Recommended Action  Try entering the command again after a few minutes. If the problem persists, it indicates a lack of RAM space. The router image may require more RAM than the router contains.

LCCEF Messages

The following are ATM Cisco express forwarding (CEF) adjacency error messages.

Error Message

%LCCEF-3-MACSTR: adjacency ([chars]) has incorrect high word ([hex]) in its mac string

Explanation  The CEF line card has received an adjacency with an incorrect MAC rewrite string. Packets forwarded to that adjacency will be dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LCCEF-3-OUTINFO: adjacency ([chars]) has incorrect output_info ([hex]) field

Explanation  The CEF line card has received an adjacency with an incorrect OUTPUT_INFO field. Packets forwarded to that adjacency will be dropped.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

LCCOREDUMP Messages

The following are line card core dump subsystems error messages.

Error Message
%LCCOREDUMP-3-BADCLOSE: Can’t close slave core socket for slot [dec]

Explanation  The system has just finished dumping a core file from a line card. The system tried and failed to close the core file on the remote system.

Recommended Action  Verify the network connections and user privileges.

Error Message
%LCCOREDUMP-3-BADOPEN: Can’t open slave core socket for slot [dec]

Explanation  The system wants to dump a core file to a remote system, but the system is unable to open the remote file.

Recommended Action  Ensure that the remote system is accessible and that the protocol is set up correctly.

Error Message
%LCCOREDUMP-3-BADWRITE: Can’t write [chars] to slave core socket for slot [dec]

Explanation  The system is trying to write a core dump file to a remote system. The file was opened, and an error has occurred during a write to the file.

Recommended Action  Verify that the network is functioning and that there is available disk space.

Error Message
%LCCOREDUMP-2-EOM: Cannot allocation memory for [chars]

Explanation  The system cannot allocate memory for the core dump subsystem.

Recommended Action  Add more memory.
Error Message
%LCCOREDUMP-3-ILLNVGEN: Illegal call to bflc_cfg_coredump_nvgen

Explanation The NVGEN routine was called, but NVGEN was not set.

Recommended Action Gather information about the processes running on this GSR, including the traceback, and contact your Cisco technical support representative.

Error Message
%LCCOREDUMP-3-ILLPAK: Coredump packet received from slot [dec] (not in dump state) [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

Explanation The RP has received a core dump packet from a line card that should not be dumping core.

Recommended Action Gather information about the state of the line cards and contact your Cisco technical support representative.

Error Message
%LCCOREDUMP-3-ILLTD: Testdump only valid on line cards (not allowed on RPs)

Explanation You cannot run a line card core dump test for an RP.

Recommended Action Do not try to run a line card core dump test for an RP.

Error Message
%LCCOREDUMP-6-LERP: Cannot configure linecard exceptions for [chars] RP

Explanation The exception line card commands can be used only to configure exceptions on a line card. You cannot use an exception line card command to configure RP core dumps.

Recommended Action Use the exception command without a line card specified to configure RP core dumps.

Error Message
%LCCOREDUMP-3-NOMCP: Cannot malloc memory for mbus core dump message to slot [dec]

Explanation The system is trying to write a core dump file to a remote system, but it could not allocate memory to create the message that starts the core dump process.

Recommended Action Add memory.
Error Message
%LCCOREDUMP-4-NOMDD: [chars] core dump for slot [dec] (Cannot modify during dump)

Explanation The system is currently dumping a core file for this line card. You cannot modify core dump configuration during a core dump.

Recommended Action Wait for the core dump to finish.

Error Message
%LCCOREDUMP-3-NOPAK: No packet on queue ([hex] [dec])

Explanation The RP has received a core dump packet from a line card that should not be dumping core.

Recommended Action Gather information about the state of the line cards and contact your Cisco technical support representative.

Error Message
%LCCOREDUMP-3-NOPROC: Unable to create data handler process

Explanation The system is attempting to write a core dump file to a remote system, but it is unable to start a process to dump the file.

Recommended Action Gather information about the number of processes running, including the amount of memory in the system, and contact your Cisco technical support representative.

Error Message
%LCCOREDUMP-3-NOQUEUE: Cannot create queue to receive dump packets for slot [dec]

Explanation The system is trying to write a core dump file to a remote system. It could not create a queue to hold dump data coming from the line cards.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%LCCOREDUMP-4-TIMEOUT: [chars] ([hex] [dec])

Explanation The system is trying to write a core dump file, but the RP timed out while the system was waiting for the data from the line card.

Recommended Action Gather information about the line card and contact your Cisco technical support representative.
LCFE Messages

The following are Fast Ethernet line card (LC) error messages.

Error Message
%LCFE-4-CAM_DONE_TIME: CAM [chars]: wait for DONE exceeded timeout ([dec] ms)

Explanation  An LC Fast Ethernet Rx Translator content addressable memory (CAM) DONE bit was not reset to 1 on a write or read within the given timeout period.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCFE-6-CAM_INIT: HW MAC address filter (CAM) init failed: CAM disabled

Explanation  The CAM hardware containing the MAC address filter has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCFE-3-FE_RX_MICE: [chars]

Explanation  An attempt to load the line card Fast Ethernet Mice FPGA has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCFE-1-INITFAIL: LCFE([dec]/[dec]), initialization timeout failure

Explanation  The line card Fast Ethernet hardware initialization has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCFE-6-LINE_STATE: Line state [chars]

Explanation  A line state error has been detected or fixed as specified in the message.

Recommended Action  Check the cable connections. The local Rx cable must be connected to the remote Tx cable and vice versa.
**Error Message**

%LCFE-4-OP: error: [chars]

**Explanation**  Line card Fast Ethernet driver general operation errors have occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%LCFE-4-RPCMD: [chars] command error: [chars]

**Explanation**  RP command errors involving the line card Fast Ethernet driver have occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%LCFE-6-RX_LOS: [chars] RX Loss of Signal

**Explanation**  An Rx loss-of-signal error has been detected or fixed as specified in the message.

**Recommended Action**  Check the cable connections. The local Rx cable must be connected to the remote Tx cable and vice versa.

**Error Message**

%LCFE-3-RX_TX_TRANS: [chars]

**Explanation**  The line card Fast Ethernet Rx/Tx translator FPGA could not be loaded.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%LCFE-6-SYNC_LOSS: [chars]

**Explanation**  A loss-of-synchronization error has been detected, or a previous loss-of-synchronization error has been resolved.

**Recommended Action**  Check the cable connections. The local Rx cable must be connected to the remote Tx cable and vice versa.
LCGE Messages

The following are Gigabit Ethernet line card (LC) error messages.

Error Message
%LCGE-6-CAM_ADD: Failed to add address [enet] to CAM

Explanation An entry could not be added to the CAM MAC address filter.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCGE-4-CAM_DONE_ITER: CAM [chars]: wait for DONE exceeded [dec] iterations

Explanation The line card Gigabit Ethernet Rx GigaTranslator content addressable memory (CAM) DONE bit was not reset to 1 on a write or read within the number of iterations specified in the message.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCGE-6-CAM_EXCEEDED: [dec] entries to add > [dec] entries available

Explanation An entry could not be added to the CAM MAC address filter.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCGE-6-CAM_INIT: CAM MAC address filter init failed: CAM disabled

Explanation The system could not initialize the CAM MAC address filter.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LCGE-6-CAM_REMOVE: Failed to remove address [enet] from CAM

Explanation  An entry could not be removed from the CAM MAC address filter.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCGE-6-GBIC_OIR: [chars] [chars] [dec]

Explanation  A GBIC OIR event has been detected as specified in the message.

Recommended Action  No action is required.

Error Message
%LCGE-6-GBIC_READ: Cannot read GBIC in port [dec], perhaps absent or faulty

Explanation  The system could not read the GBIC in the specified port.

Recommended Action  Ensure that the GBIC is inserted correctly. If it is inserted correctly and the problem persists, replace the GBIC.

Error Message
%LCGE-6-GBIC_TX_FAULT: GBIC TX Fault [chars]

Explanation  A GBIC Tx fault error was detected or fixed as specified in the message.

Recommended Action  Check the GBIC and the cable connections. The local Rx cable must be connected to the remote Tx cable and vice versa.

Error Message
%LCGE-1-INITFAIL: LCGE([dec]/[dec]), initialization timeout failure

Explanation  The line card Gigabit Ethernet hardware initialization has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCGE-3-INTR: [chars]

Explanation  The line card Gigabit Ethernet Rx GigaTranslator FPGA could not be loaded.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LCGE-6-LINE_STATE: Line state [chars]

Explanation  A GBIC line state error was detected or fixed as specified in the message.

Recommended Action  Check the GBIC and cable connections. The local Rx cable must be connected
to the remote Tx cable and vice versa.

Error Message
%LCGE-4-OP: error: [chars]

Explanation  Line card Gigabit Ethernet driver general operation errors have occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.

Error Message
%LCGE-4-RPCMD: [chars] command error: [chars]

Explanation  RP command errors involving the line card Fast Ethernet driver have occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.

Error Message
%LCGE-6-RX_LOS: [chars] RX Loss of Signal

Explanation  A GBIC Rx loss-of-signal error was detected or fixed as specified in the message.

Recommended Action  Check the GBIC and cable connections. The local Rx cable must be connected
to the remote Tx cable and vice versa.

Error Message
%LCGE-3-RX_TRANS: [chars]

Explanation  The line card Gigabit Ethernet Rx GigaTranslator FPGA could not be loaded.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log,
contact your Cisco technical support representative, and provide the representative with the gathered
information.
Error Message

%LCGE-3-RX_TRANS_PROG: [chars]

Explanation  The line card Gigabit Ethernet Rx GigaTranslator FPGA has not been programmed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LCGE-6-SYNC_LOSS: [chars]

Explanation  A loss-of-synchronization error has been detected, or a previous loss-of-synchronization error has been resolved.

Recommended Action  Check the GBIC and cable connections. The local Rx cable must be connected to the remote Tx cable and vice versa.

LCINFO Messages

The following are line card crash information subsystem error messages.

Error Message

%LCINFO-3-CRASH: Line card in slot [int] crashed

Explanation  The line card in the specified slot has crashed and sent a CRASH_START message to the RP. The RP is waiting for the rest of the crash information from the line card, including stack trace, context, and version, to be sent via the Mbus. This information should be sent a few milliseconds after the CRASH_START message is received. The RP software has not otherwise been notified of the line card crash. The RP software will receive notification of the line card crash after all the crash information has been sent to the RP. In the unlikely event that the subsequent crash information messages are not received by the RP within a reasonable time limit (perhaps 10 seconds), the RP will print a TIMEOUT error message and will report to the rest of the RP software that the line card has crashed.

Recommended Action  Report this defect to your Cisco technical support representative. Report as much information about the line card in question as possible, including the output of the show context summary, show context slot n, and show tech-support n commands, as well as the show tech-support command from the RP.
Error Message
%LCINFO-3-INVDEV: Invalid line card number in MBUS callback (LC=[int])

**Explanation**  The line card crash information subsystem on the RP was called from the Mbus subsystem with an invalid device identifier. The device in this case should be the slot number of the line card, but the slot number was out of range. This condition indicates a software defect in the system.

**Recommended Action**  Report this defect with as much information about the Mbus subsystem as possible to your Cisco technical support representative. There is no adverse effect to the RP because it ignores the invalid callback and continues. If this problem persists, reboot the router. It is unlikely but possible that this problem is due to defective Mbus hardware somewhere in the system, most likely within the RP Mbus module.

Error Message
%LCINFO-3-INVSTATE: Line card crash server in bad state (LC=[int],state=[int])

**Explanation**  The line card crash information subsystem for the specified line card is in an unknown state. This error is caused by a software defect in that subsystem.

**Recommended Action**  Report this defect to your Cisco technical support representative providing as much information as possible about the Mbus subsystem and the line card crash information subsystem.

Error Message
%LCINFO-3-NOBUF: Could not malloc line card crash structures on RP (size=[int])

**Explanation**  The RP could not allocate memory for line card crash data structures at the time of startup. This condition is not serious, but the underlying memory shortage at time of startup will probably cause the router to run poorly or prevent the router from starting.

**Recommended Action**  Research the memory shortage problem or add more memory.

Error Message
%LCINFO-3-NOBUFLC: Could not malloc line card crash info buffer on RP (LC=[int],bufnum=[int],size=[int])

**Explanation**  The RP could not allocate memory to one or more buffers to hold line card crash information at startup time. This condition is not serious, but the underlying memory shortage at time of startup will probably cause the router to run poorly or prevent the router from starting.

**Recommended Action**  Research the memory shortage problem and, if necessary, add more memory.
Error Message

%LCINFO-3-NOPROCESS: Failed creating line card complete process

Explanation When creating the “CRASH COMPLETE” process for the crash information subsystem, the create_process call has failed. This condition should not occur and is probably caused by a software defect or hardware failure. This error should happen only during initialization.

Recommended Action Reboot the system. If the condition persists on subsequent reloads of the system, report the problem to your Cisco technical support representative and reload the system with a different image.

Error Message

%LCINFO-3-TIMEOUT: Timeout waiting for crash info from slot [int]

Explanation The “CRASH INFORMATION COMPLETE” timer has expired. When a line card crashes, it sends information to the RP for debugging and analysis. When the “START OF CRASH” message is received, a timer is set for approximately 10 seconds. The line card has 10 seconds to send all the crash information to the RP. This information is not a crash dump—this is a small amount of information that usually includes data such as context and stack trace. The crash information is less than 8K bytes in size. If an “END OF CRASH INFORMATION” message is not received before the timer goes off, the crash information record is closed (containing partial information), this message is displayed, and the rest of the system is notified that the line card has crashed (at which point it is probably reloaded). If the line card sends more crash information after the timer expires and before the system resets the line card, additional “UNXMSG” error messages might be displayed.

Recommended Action No action is required specifically because this message was displayed. Because the line card has crashed, there might be other defects to report. If this message is seen and a line card has not crashed, report this defect to your Cisco technical support representative along with the output of the usual commands, including the show tech-support command on the RP and on the line card that did not crash but was mentioned in this error message.

Error Message

%LCINFO-4-TRUNC: Crash record ([int]=[chars]) truncated (expected=[int],actual=[int])

Explanation A line card has crashed and was sending crash information to the RP. The RP received a “CRASH RECORD START” message that indicated the data would be a certain number of bytes in length. Before the indicated number of bytes were received, the RP received another “CRASH RECORD START” message indicating the start of another record. The current record is marked as truncated, the next record is received, and the problem is noted in this error message. This should be noted as a problem, but might be only a symptom of another underlying problem, because this message was triggered by a line card that has crashed.

Recommended Action Report this defect, providing as much information as possible about the Mbus subsystem and the line card crash information subsystem to your Cisco technical support representative.
Error Message

%LCINFO-4-UNXMSG: Unexpected crash info msg type ([chars]) in state [chars] (LC=[int])

Explanation The line card crash information subsystem has received a message that is unexpected for the state it is in. The state and message type are given in the error message. This occurrence does not have any adverse effect on the RP because it ignores the message and recovers from this occurrence. The sender of these messages is a line card that is crashing; therefore, the source of the crash on the line card is more significant. If this message occurs without a line card crash, it is due to a stray or errant Mbus message that warrants investigation. This condition could also be caused by a dropped Mbus message.

Recommended Action Find the source of the crash on the line card if one was crashing when the message has occurred. If no line card crashed, report this defect to your Cisco technical support representative, providing as much information as possible about the Mbus subsystem and the line card crash information subsystem. If this message persists, rebooting the router might help eliminate this message.

LCLOG Messages

The following are Internet router line card logger subsystem error messages.

Error Message

%LCLOG-3-INVDEV: Invalid line card number in MBUS callback (LC=[int])

Explanation The line card crash info subsystem on the RP was called from the Mbus subsystem with an invalid device identifier. The device in this case should be the slot number of the line card, but the slot number was out of range. This condition indicates a software defect in the system.

Recommended Action Report this defect, providing as much information as possible about the Mbus subsystem to your Cisco technical support representative. There is no adverse effect to the RP because it ignores the defective callback and continues. If the problem is recurring, reboot the router. It is unlikely but possible that the problem is caused by malfunctioning Mbus hardware somewhere in the system, most likely within the RP Mbus module.

Error Message

%LCLOG-3-INVSTATE: LC logger in bad state (LC=[int],state=[chars],msg=[chars])

Explanation The line card logger subsystem for the specified line card is not in the state expected for the message it received. This condition is probably caused by a software defect in that subsystem, although it could also be caused by a dropped Mbus message.

Recommended Action Report this defect to your Cisco technical support representative, providing as much information as possible about the Mbus subsystem and the line card logger subsystem.
LCOC12_CH_DS3 Messages

Error Message
%LCLOG-3-MSGGIANT: LC log msg larger than max allowed (LC=[int],length=[int])

Explanation The RP part of the line card logger server has received a log start message that is larger than the maximum size allowed by the log buffer. This condition is probably due to a software defect.

Recommended Action Report this defect to your Cisco technical support representative, providing as much information as possible about the Mbus subsystem and the line card logger subsystem.

Error Message
%LCLOG-3-MSGTOOBIG: LC log msg longer than expected (LC=[int],len=[int],exp=[int])

Explanation The RP part of the line card logger server has received more text for a message than was indicated by the start message. This condition is probably due to a software defect.

Recommended Action Report this defect to your Cisco technical support representative, providing as much information as possible about the Mbus subsystem and the line card logger subsystem.

Error Message
%LCLOG-3-OVERFLOW: LC log msg longer than msg buffer (LC=[int],len=[int],max=[int])

Explanation The RP part of the line card logger server has received more text for a message than the message log buffer can fit. This condition is probably due to a software defect.

Recommended Action Report this defect to your Cisco technical support representative, providing as much information as possible about the Mbus subsystem and the line card logger subsystem.

LCOC12_CH_DS3 Messages

The following are Internet router OC-12-channelized-to-D3 line card error messages.

Error Message
%LCOC12_CH_DS3-1-ALLOCFAIL: OC12 [dec]/[dec][chars] allocation failure

Explanation An OC12-channelized-to-DS3 controller or channel memory allocation failure has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LCOC12_CH_DS3-3-BMAENG: [chars] HDLC, [chars] [chars][chars]. (src=[hex], det1=[hex], det2=[hex])

Explanation HDLC buffer management ASIC engine hardware errors have occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-3-BMAPAR: [chars] HDLC, [chars]. BMA_DATA[3:0]=[hex]. (src=[hex], det1=[hex], det2=[hex])

Explanation A parity error has occurred on the HDLC buffer management ASIC engine.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-3-CLOCKERR: Controller oc12 [dec]:[dec] clock out of reference. PLIM interrupt count [dec], interrupt status [hex]

Explanation The OC12-CH-DS3 controller clock is out of reference.

Recommended Action Verify the near-end and far-end clock source configuration for the OC12 controller. If, after verifying or correcting the clock configuration, the problem still exists, copy the error message exactly as it appears on the console or in the system log. Issue the show tech command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-3-HDLCENG: [chars] HDLC, [chars]. [chars], port [dec]. (src=[hex], det1=[hex], det2=[hex])

Explanation HDLC engine hardware errors have occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%LCOC12_CH_DS3-1-INITFAIL: OC12 [dec]/[dec] hardware initialization failure

Explanation An OC12-channelized-to-DS3 line card hardware initialization failure has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, issue the `execute-on slot number show controller oc12 all details` command. If you cannot determine the nature of the error from the error message text or the `execute-on slot number show controller oc12 all details` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-3-NOHWIDB: OC12 [dec]/[dec][chars] hardware IDB is missing

Explanation The OC12-channelized-to-DS3 controller or channel hardware IDB is missing.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-3-NOSUBBLOCK: OC12 [dec]/[dec][chars] sub-block is missing

Explanation The OC12-channelized-to-DS3 controller or channel hardware IDB associated subblock is missing.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-3-SRAMPAR: [chars] HDLC, [chars]. [chars]=[hex][chars]. (src=[hex], det1=[hex], det2=[hex])

Explanation A parity error has occurred on the HDLC ASIC SRAM.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCOC12_CH_DS3-4-UNKNOWNPARAM: OC12 [dec]/[dec][chars] parameter value is unknown

Explanation An unknown command parameter was used for the OC12-channelized-to-DS3 controller or channel IPC.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
LCPLIM Messages

The following are line card physical layer interface module error messages.

Error Message
%LCPLIM-2-BADIDB: PLIM interface idb incorrect, [hex]

Explanation  A null POS line card instance has been found.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `execute-on slot number show controller` command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the `execute-on slot number show controller` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPLIM-2-BADINTERFACE: Out of range LC interface, [dec] on slot [dec]

Explanation  The number of interfaces has exceeded the maximum limit for this line card.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show version`, `show gsr`, `show diags`, `show interfaces`, `execute-on slot number show controller`, and `execute-on slot number show subsys` commands to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show version`, `show gsr`, `show diags`, `show interfaces`, `execute-on slot number show controller`, and `execute-on slot number show subsys` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPLIM-3-UNDEFCMD: Interface [dec]: unsupported [chars] command =[hex]

Explanation  An undefined command has been received for this interface.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show ipc status` command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show ipc status` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPLIM-2-UNDEFPLIM: Undefined PLIM type [dec] in slot [dec]

Explanation  An undefined GSR card type has been found.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show version`, `show gsr`, `show diags`, `show interfaces`, and `execute-on slot number show subsys` commands to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show version`,
show gsr, show diags, show interfaces, or execute-on slot number show subsys command output, contact your Cisco technical support representative and provide the representative with the gathered information.

LCPOS Messages

The following are Packet-over-SONET (POS) line card driver error messages.

Error Message

%LCPOS-3-BMAENG: [chars] POS, [chars] [chars][chars]. (src=[hex], det1=[hex], det2=[hex])

Explanation POS buffer management ASIC engine hardware errors have occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%LCPOS-3-BMAPAR: [chars] POS, [chars]. BMA_DATA[3:0]=[hex]. (src=[hex], det1=[hex], det2=[hex])

Explanation A parity error has occurred on the POS buffer management ASIC engine.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%LCPOS-1-INITFAIL: LCPOS([dec]/[dec]), initialization timeout failure

Explanation The line card POS ASIC and framer initialization have failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LCPOS-3-LINKBADEVT: Unexpected event woke up LC POS link process.

Explanation The line card POS link report process has received an unexpected event.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show subsys command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the show subsys command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%LCPOS-3-LINKNOPRC: LCPOS, lcpos_add_process: Unable to create lcpos_link_report process

Explanation The line card POS link report process cannot be created.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show subsys command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the show subsys command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-LINKPROC: LCPOS, lcpos_link_report process: Could not get argument

Explanation The line card POS link report process has stopped working.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show subsys and show memory summary commands to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the show subsys or show memory summary command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-POSENG: [chars] POS, [chars], [chars], port [dec]. (src=[hex], det1=[hex], det2=[hex])

Explanation POS engine hardware errors have occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-RXPOSTO: LCPOS([dec]/[dec]), RX POS engine shutdown failed

Explanation The software is trying to shut down the Rx POS engine. The Rx POS engine did not shut down before the software timer expired.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If the diagnostics pass, issue the execute-on slot number show controllers pos registers command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the execute-on slot number show controllers pos registers command output, contact your Cisco technical support representative and provide the representative with the gathered information.
**Error Message**

%LCPOS-3-SOP: [chars] SOP. (source=[hex], halt_minor0=[hex])

**Explanation**  Second-generation POS hardware errors have occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%LCPOS-3-SRAMPAR: [chars] POS, [chars]. [chars]=[hex][chars]. (src=[hex], det1=[hex], det2=[hex])

**Explanation**  A parity error has occurred on the POS ASIC SRAM.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Perform diagnostics on the line card in the specified slot. If the diagnostics pass, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%LCPOS-3-TXPOSTO: LCPOS([dec]/[dec]), TX POS engine shutdown failed

**Explanation**  The software is trying to shut down the Tx POS engine. The Tx POS engine did not shut down before the software timer expired.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in the specified slot. If the diagnostics pass, issue the `execute-on slot number show controllers pos registers` command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the `execute-on slot number show controllers pos registers` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

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**LES_FDDI Messages**

The following are LAN Emulation Server and FDDI error messages.

**Error Message**

%LES_FDDI-2-ILLEGAL: WARNING: Illegal FDDI Configuration

**Explanation**  The router does not have enough I/O memory to support an FDDI interface. The FDDI interface requires at least 4 MB of I/O memory.

**Recommended Action**  Install the required amount of I/O memory. For maximum performance, Cisco recommends installing 8 MB of I/O memory for a single FDDI NIM, and 16 MB of I/O memory if 2 FDDI NIMs are installed. With 4 MB of I/O memory, the system will create 256 FDDI buffers for
one FDDI interface or 384 buffers for two FDDI interfaces. With 8 MB of I/O memory, the system will create 512 FDDI buffers for either one or two FDDI interfaces. With 16 MB of I/O memory, the system will create 512 FDDI buffers for one FDDI interface or 1024 buffers for two FDDI interfaces.

**LEX Messages**

The following are LAN Extension error messages.

**Error Message**

%LEX-3-NOTSENT: Serial line down, [chars] : [chars] not sent

**Explanation** The serial line has gone down, and the specified command was not sent to the LAN Extender.

**Recommended Action** Determine why the serial line went down; for example, if the cable was pulled, or the LAN Extender was powered off. The command will automatically be resent when the serial interface is operational.

**Error Message**

%LEX-3-RCMDNAK: [chars] : [chars] could not be processed by LAN Extender

**Explanation** The LAN Extender could not process the command from the host router. Possible causes are as follows:

- The LAN Extender has run out of memory.
- The message from the host router is malformed.
- A request to write Flash memory occurred while the LAN Extender was busy writing Flash memory for a previous request.
- The size of a file to be downloaded is greater than the amount of Flash memory available.

**Recommended Action** If the command was `copy tftp lex number` or `copy flash lex number`, ensure that the correct FLEX image file is specified. Only a single copy request can be handled at one time. If the problem was caused by a temporary out-of-memory condition on the LAN Extender, reenter the command.

**Error Message**

%LEX-3-RCMDREJ: [chars] : [chars] could not be processed by LAN Extender

**Explanation** The LAN Extender did not recognize the code for the specified remote command. This condition might occur if the user is running old LAN Extender software with newer host router software that has support for new LEX remote commands.

**Recommended Action** Update the LAN Extender software.
LIBT2F Messages

Error Message
%LEX-3-TIMEOUT: Retry count exceeded for [chars] : [chars]

Explanation  The host router resent the given message as many times as specified in the lex retry-count command configuration variable, without receiving an acknowledgment from the LAN Extender. At this point, the host router gives up trying to send this particular remote command message.

Recommended Action  Use the LEDs on the LAN Extender to determine if it is operational. Confirm that the lex timeout configuration command is set appropriately for the speed of the link.

LIBT2F Messages

The following are text to fax library error messages.

Error Message
%LIBT2F-3-ENGINE_FAILED: The text2fax engine failed

Explanation  The text to fax engine has failed. This error was most likely caused by a memory limitation or the passing of illegal data into the text to fax engine. The fax transmission will be aborted.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBT2F-3-GETBUFFER_FAILED: Cannot allocate a packet from shared memory

Explanation  The system is running low on packet memory, and the fax cannot be sent correctly.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBT2F-2-NEW_CONTEXT: A new text2fax context could not be created

Explanation  An internal error has occurred in the initialization of the text to fax engine. The fax transmission will be aborted.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
LIBTIFF Messages

Error Message
%LIBTIFF-3-NUL BUFFER: A text buffer is NULL

Explanation An internal error has occurred in the text buffer processing. The fax transmission be aborted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

LIBTIFF Messages

The following are Tagged Image File Format (TIFF) library error messages.

Error Message
%LIBTIFF-3-BAD.DialPEER: Invalid dial peer tag [dec]

Explanation An invalid Media Mail over IP dial peer tag was received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBTIFF-4-COPY_QUALITY: Bad copy quality on tty [dec]

Explanation An error was caused by noisy phone lines or a defective modem.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBTIFF-3-ENGINE_FAILED: The tiff engine failed

Explanation The TIFF engine has failed. This error was most likely caused by a memory limitation or the passing of illegal data into the TIFF engine. The fax transmission will be aborted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LIBTIFF-3-GETBUFFER_FAILED: Cannot allocate a packet from shared memory

Explanation The system is running low on packet memory. The fax cannot be sent correctly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBTIFF-3-INVALID_BUFFER: A tiff buffer is invalid

Explanation An internal error has occurred in the TIFF buffer processing. The fax transmission will be aborted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBTIFF-3-NEW_CONTEXT: A new tiff context could not be created

Explanation An internal error has occurred in the initialization of the TIFF engine. The fax transmission will be aborted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LIBTIFF-3-NULL_BUFFER: A tiff buffer is NULL

Explanation An internal error has occurred in the TIFF buffer processing. The fax transmission will be aborted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are Node Route Processor (NRP) line card error messages.

**Error Message**

%LINECARD-3-NRP_BADSTATUS: NRP slot [dec] subslot [dec] invalid Mailbox status area contents or unreachable.

**Explanation**  The mailbox status area contents are invalid or missing.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%LINECARD-3-NRP_CONFIG: NRP slot [dec] subslot [dec] invalid Mailbox config area contents or unreachable.

**Explanation**  The mailbox configuration area contents are invalid or missing.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**


**Explanation**  An NRP subslot on the line card has failed.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**


**Explanation**  An NRP slot on the line card has failed, and the router has rebooted.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message


Explanation  An NRP slot on the line card has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message


Explanation  The EHSA secondary has gone down.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LINECARD-3-NRP_SECONDARY_TO_PRIMARY: NRP slot [dec] subslot [dec] EHSA secondary to primary cutover.

Explanation  An EHSA secondary-to-primary cutover has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%LINECARD-3-NRP_SECONDARYUP: NRP slot [dec] subslot [dec] reports EHSA secondary up.

Explanation  The EHSA secondary has gone up.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
LINEPROTO Messages

The following are Line Protocol error messages.

Error Message
%LINEPROTO-5-UPDOWN: Line protocol on Interface [chars], changed state to [chars]

Explanation  The data link level line protocol has changed state.

Recommended Action  No action is required.

LINK Messages

The following are data link error messages.

Error Message
%LINK-3-BADENCAP: Interface [chars], Bad encapsulation code ([dec])

Explanation  The lower-level software was unable to write a MAC header for a datagram. A configuration error has probably occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-3-BADMACREG: Interface [chars], non-existent MACADDR registry for link [dec]

Explanation  An attempt to map a network level address to a MAC level address has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-4-BADQID: Interface [chars], bad output queue ID specified ([dec]). Packet dropped

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LINK-2-BADVCALL: Interface [chars], undefined entry point

Explanation An internal software error has occurred. The high-level system code tried to use an unimplemented entry point with the virtual IDB driver.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-6-BERTSTATUS: Interface [chars], [chars]

Explanation BERT has been completed for this interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-3-BOGUSENCAP: Interface [chars], bad encapsulation in idb->enctype = [hex]

Explanation A serial interface has been configured with an unknown encapsulation.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-5-BOOTP: [chars] address [IP_address], resolved by [IP_address]

Explanation An interface IP address was successfully learned dynamically through BOOTP. The first address specified in the message is the learned IP address. The second IP address specified in the message is the IP address of the BOOTP server that provided the information.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LINK-4-BRIDGECONFLICT: Interface [chars], encapsulated BPDU recvd from [enet]

Explanation An FCIT running in nonencapsulating transparent mode has detected an FDDI bridge running in encapsulation mode on the same fiber. This condition indicates an unstable situation and should be corrected. The incoming interface is displayed, along with the FDDI MAC address in standard form.

Recommended Action Upgrade the specified interface to full transparent mode. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-5-CHANGED: Interface [chars], changed state to [chars]

Explanation The interface hardware has changed state.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-3-COMPREG: Interface [chars], non-existent (de)compression registry. Packet dropped

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-3-EMPTYPAK: Interface [chars], empty packet dequeued; linktype [dec], queue [dec].

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-4-FDDISTAT: Interface [chars], FDDI state [chars] detected

Explanation A state change has occurred on the FDDI ring.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LINK-3-IDBLISCRE: Unable to create [chars] interface list

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-3-IDBLISINS: Not able to insert interface [chars] into [chars] list

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-2-INTVULN: In critical region with interrupt level=[dec], intfc=[chars]

Explanation  An internal software error has occurred. The high-level system code has attempted to call this routine with interrupts enabled.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-2-LINEST: No linestate vector for [chars]

Explanation  An internal software inconsistency has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-5-LOOPSTATUS: Interface [chars], [chars]

Explanation  The interface has entered or exited loopback.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LINK-4-NOMAC: A random default MAC address of [enet] has been chosen. Ensure that this address is unique, or specify MAC addresses for commands (such as 'novell routing') that allow the use of this address as a default.

Explanation  An addressing inconsistency has occurred.

Recommended Action  Ensure that the specified address is unique, or specify MAC addresses for commands such as ipx routing that allow the use of this address as a default.

Error Message
%LINK-2-NOSOURCE: Source idb not set

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LINK-5-RARP: [chars] address [IP_address], resolved by [IP_address]

Explanation  RARP has resolved an IP address.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-0-REENTER: Fatal reentrancy, level=[dec], intfc=[chars]

Explanation  An internal software error has occurred. The system code has attempted to access a critical data structure that was already in use.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LINK-5-REMLOOP: Interface [chars], remote loop [chars] [chars]

Explanation  The interface has entered or exited a remote loopback.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%LINK-5-SLARP: [chars] address [IP_address], resolved by [IP_address]

**Explanation** The SLARP has resolved an IP address.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%LINK-4-TOOBIG: Interface [chars], Output packet size of [dec] bytes too big

**Explanation** An internal software error has occurred.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%LINK-3-TOOSMALL: Interface [chars], Output runt packet of [dec] bytes

**Explanation** An output packet has been detected that was smaller than the minimum allowable datagram size. An error in another driver or an error in the system software probably triggered this error message.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%LINK-3-UPDOWN: Interface [chars], changed state to [chars]

**Explanation** The interface hardware has gone either up or down.

**Recommended Action** If the state change was unexpected, confirm the configuration settings for the interface.
LLC Messages

The following are Logical Link Control (LLC), type 2 error messages.

Error Message
%LLC-2-UNEXPECT: LLC2: [chars] UNEXPECTED EVENT

Explanation An internal software error has been found. A software component is trying to use LLC2 structures that do not exist.

Recommended Action Record the configuration and any other information that would be useful in recreating the error. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

LLIST Messages

The following are linked list facility error messages.

Error Message
%LLIST-3-OFFLIST: [chars] from [hex], [hex] not on list

Explanation An internal inconsistency has been detected. An attempt was made to remove the specified item from a list, but the specified item was not on the list.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LLIST-3-ONLIST: [chars] to [hex], [hex] on list

Explanation An internal inconsistency has been detected. An attempt was made to add the specified item to a list, but the specified item was already on the list.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
LNMC Messages

The following are LAN network manager error messages.

**Error Message**
%LNMC-3-BADCLSI: [chars] primitive not valid for lnm [chars] [chars]

**Explanation**  A LAN network manager system error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%LNMC-3-BADCLSICNF: [chars] Invalid confirm [chars] [chars]

**Explanation**  A LAN network manager system error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%LNMC-3-BADCLSIDATALEN: [chars] Bad data len = [dec] [chars]

**Explanation**  A LAN network manager system error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%LNMC-3-BADCLSIHDRLEN: [chars] Bad header len = [hex] [chars]

**Explanation**  A LAN network manager system error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%LNMC-3-BADCLSIIDTYPE: [chars] Invalid ID type = [hex] [chars]

**Explanation**  A LAN network manager system error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%LNMC-3-BADCLSIIND: [chars] Invalid indication [chars], [chars]

Explanation  A LAN network manager system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LNMC-3-BADCLSPRIMTYPE: [chars] Invalid primitive type = [hex] [chars]

Explanation  A LAN network manager system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LNMC-3-BADCLSIRET: [chars] Invalid ret code ([hex]) [chars], [chars]

Explanation  A LAN network manager system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%LNMC-3-BADCLSI SAP: [chars] Bad clsi SAP id = [hex] [chars]

Explanation  A LAN network manager system error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

LPD Messages
The following are line printer daemon (LPD) error messages.

Error Message
%LPD-3-MANYLF: Line [t-line], packet has too many newlines to convert

Explanation  An internal buffer did not have enough room to add all the necessary carriage returns to a packet of LPD data that was destined for a printer configured with a newline-convert command. This message is unlikely to occur with a file that contains valid data.

Recommended Action  Check the file that is being printed to see whether it contains valid, printable data.
LSS Messages

The following are LS Switching error message definition error messages.

**Error Message**

%LSS-4-LSIPC: [chars] [dec]

**Explanation**  The LSIPC has timed out. The microcode on the specified interface may not be responding. A possible cause of this condition is an EPAM not responding.

**Recommended Action**  Check the status of the EPAM.

M32X Messages

The following are M32X Basic Rate Interface (BRI) trunk card error messages.

**Error Message**

%M32X-1-AR_TIMEOUT: M32X controller [dec], channel [hex]: No Response from device.

**Explanation**  The action request has failed after a retry and has timed out.

**Recommended Action**  No action is required.

**Error Message**

%M32X-1-DWNLDCKSM: M32X: Download checksum error (sent = [hex], received = [hex]

**Explanation**  The download of the internal microcode to the M32X trunk card has failed to checksum correctly. This condition usually indicates a hardware failure of the M32X trunk card.

**Recommended Action**  Perform a power cycle. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%M32X-1-DWNLDFL: M32X download failed.

**Explanation**  The M32X trunk card has failed. The M32X trunk card could not download its operational microcode.

**Recommended Action**  Perform a power cycle. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%M32X-1-INITFAIL: M32X slot [dec]: Init Failed at [chars]

**Explanation**  The M32X trunk card has failed to complete its hardware initialization.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%M32X-3-MBXREAD: M32X: Stale msg in [chars] - mbx0:[hex] mbx1:[hex] mbx2:[hex]

**Explanation**  The M32X trunk card has not responded to a message within a specified time.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%M32X-1-NOTCMLPT: M32X download failed to complete.

**Explanation**  The M32X trunk card has failed. It could not download its operational microcode.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%M32X-3-NOTM32X: Device reported [hex]

**Explanation**  A hardware error has occurred involving the PCI interface for an M32X trunk card.

**Recommended Action**  Either an M32X trunk card has malfunctioned or another PCI device may have been mistaken for an M32X. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%M32X-1-NOTREADY: Not ready for download.

**Explanation**  The M32X trunk card did not respond when requested to download its operational microcode.

**Recommended Action**  Perform a power cycle. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%M32X-3-PANIC: M32X: Exception [dec], trace [dec]

Explanation A software or hardware error has occurred in the M32X trunk card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%M32X-5-REMLOOP: M32X controller [dec], channel [dec]: remote loopback [chars], [chars]

Explanation The interface has entered or exited a remote loopback.

Recommended Action No action is required.

Error Message
%M32X-1-STARTFAIL: [chars]: Channel enable failed

Explanation A software or hardware error has occurred. The M32X trunk card is not responding to commands that are used to initialize it.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%M32X-1-STOPFAIL: [chars]: Channel disable failed

Explanation A software or hardware error has occurred. The M32X trunk card has failed to respond to a request to disable an interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%M32X-3-TOOSMALL: M32X: [chars] - packet was less than two bytes

Explanation An output packet had been detected that was smaller than the minimum allowable datagram size. An error in another driver or an error in the system software probably triggered this error message.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
MAILBOX Messages

The following are ChipCom mailbox support error messages.

Note

All MAILBOX-class messages are generated in response to various conditions arising from the use of a mailbox implemented on a partner port of the Cisco 2500. The mailbox is used to pass administrative information between the router and the main management module of the platform of the partner.

Error Message

%MAILBOX-3-BADCHKSUM: Checksum failed. Expected = [hex], calculated = [hex]. Ignoring PDU.

Explanation  A hardware or software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MAILBOX-3-BADECHO: Echo-response did not match echo-request!

Explanation  The data received from an ECHO_RESPONSE PDU did not match the original data provided in the ECHO_REQUEST. Usually this message is seen during initialization and indicates a catastrophic failure of the mailbox interface. See the MAILBOX-3-INITFAIL error message for more information.

Recommended Action  Verify the router module installation. Ensure that the software revision on the management module and the router module carrier card is up to date. If this message persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MAILBOX-3-BADPDU: PDU of type [chars] received. Invalid or unsupported. Ignoring.

Explanation  The PDU that the mailbox received was valid, but the type is not supported in the current software implementation and will be ignored.

Recommended Action  This is an informational message only. No action is required.
Error Message

Explanation A catastrophic failure involving the initialization of the administrative mailbox has occurred. The mailbox will be taken offline and remain in that state until a router module reset or a system reload occurs. At that time, initialization will again be attempted. Note that the functionality of the router (its ability to receive and forward packets) is not affected by this error.

Recommended Action Verify the router module installation. Ensure that the software revision on the management module and the router module carrier card is up to date. If this message persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MAILBOX-6-INITOK: Mailbox initialization successful.

Explanation After a router reloads, this message is generated to indicate that the mailbox was successfully initialized.

Recommended Action This is an informational message only. No action is required.

Error Message
%MAILBOX-7-MBOXDEBUG: [chars]

Explanation This message header is paired with general debugging messages used to provide information about the functionality of the mailbox. To enable mailbox debugging, enter the `debug mailbox` command.

Recommended Action This is an advisory message only. No action is required.

Error Message
%MAILBOX-3-NOECHO: Echo-request timed out. No response received. Mailbox offline.

Explanation An ECHO_RESPONSE was not received within the allotted time after the generation of an ECHO_REQUEST. This failure occurs only during mailbox initialization and indicates a problem between the communication path of the router module and its carrier card.

Recommended Action Verify the router module installation. Ensure that the software revision on the management module and the router module carrier card is up to date. If this message persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MAILBOX-3-OFFLINE: [chars] mailbox is offline. Interrupt ignored.

Explanation This message is generated when an attempt has been made by the management module to communicate with an offline mailbox. An error exists between the perceived state of the mailbox from the router side and the perceived state of the mailbox from the management module side.

Recommended Action Issue a system-wide reset on the management module. If this message persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MAILBOX-7-ONLINE: [chars] mailbox coming online.

Explanation This message is generated only when mailbox debugging is enabled. It provides information about the state of each incoming or outgoing mailbox.

Recommended Action This is an advisory message only. No action is required.

Error Message
%MAILBOX-7-READ: Reading [hex] from carrier.

Explanation This message is generated only when mailbox debugging is enabled. It provides very low-level information about the incoming mailbox data stream.

Recommended Action This is an advisory message only. No action is required.

Error Message
%MAILBOX-3-TIMEOUT: Intra-PDU timeout occurred on [chars] mailbox data.

Explanation A timeout has occurred while the characters of a PDU were being sent or received. The entire PDU will be ignored.

Recommended Action This is an informational message only. No action is required.

Error Message
%MAILBOX-7-WRITE: Writing [hex] to carrier.

Explanation This message is generated only when mailbox debugging is enabled. It provides very low-level information about the outgoing mailbox data stream.

Recommended Action This is an advisory message only. No action is required.
MBRI Messages

The following are error messages relating to multi-BRI (MBRI) port modules.

Error Message
%MBRI-1-CHANINITFAIL: [chars] [chars] failed

Explanation  The MBRI network module has failed to complete its initialization.

Recommended Action  Ensure that there is sufficient memory available in the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBRI-1-INITFAIL: Port Adapter in bay [dec], shutting down PA

Explanation  The MBRI network module has failed to complete its initialization.

Recommended Action  Ensure that there is sufficient memory available in the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBRI-3-NOTMBRI: Bay [dec] device ID seen as [hex], expected [hex]

Explanation  The network module hardware has reported that a non-MBRI port module was detected.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBRI-1-TIMERPOOL_EMPTY: [chars] could not get timer element

Explanation  The requested operation could not be accomplished because the global pool of timer elements was empty. This error may have been caused by a transient system condition.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBRI-3-UNKNOWN_STATE: [chars] layer1 state is [dec]

Explanation  The MBRI driver has detected an invalid Layer 1 condition.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
The following are maintenance bus (Mbus) error messages.

**Error Message**

%MBUS-3-BADCLK: Slot [dec] does not see fabric clock from [chars]
Card will not operate on fabric using this clock

**Explanation**  The slot does not see the fabric clock. The slot must see the fabric clock from at least one of the CSCs. If just one CSC is present, the card must synchronize to that clock to operate on the fabric. If two CSCs are present, the following cases are possible. If the CSCs were configured to be redundant, the card will function if it can synchronize to at least one of the clocks. The card will be configured to use that clock in the nonredundant mode. If the CSCs are not redundant (when one CSC is defective), the whole chassis will be configured for one of the two CSCs and all the cards must synchronize to the primary CSC. A card that has failed to synchronize to the selected primary CSC will not operate over the fabric. Note that if two CSCs are present, they will be configured as redundant unless the clocks fail to lock. That error message should have been reported earlier in the process.

**Recommended Action**  Verify that the card is seated correctly. Try to reset or power-cycle the card. Run diagnostics for the card if possible. If the condition persists, copy the error message exactly as it appears along with previous error messages and report it to your Cisco technical support representative.

**Error Message**

%MBUS-0-CLKFAIL: Switched Primary Clock to [chars] ; FS error in slot [int]

**Explanation**  A hardware failure has occurred. The primary clock for the system had to be switched because frame synchronization errors were detected in the specified slot. The switch will take place under the conditions described below. Note that when the switch to a new clock is made, the RP and CSC combination is not known to have failed previously. The switch is made when the following are true:
- The GRP/primary CSC detects frame synchronization failures.
- The GLC/SFC/Secondary CSC detects frame synchronization failures. These switchovers are rate-limited to once every 10 minutes.

A card can cause only one switchover. The inability of the card to detect frame synchronizations from the primary clock is a catastrophic failure that makes it inoperable on the fabric. The condition will usually manifest itself as a CRC error in the FIA, resulting in transfer errors over the fabric.

**Recommended Action**  Run diagnostics on the specified card and the original primary CSC if possible. If fabric errors persist, remove the CSC, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%MBUS-2-CLKSTATUS: Slot [dec] [chars]

Explanation The slot clock has changed its redundancy state. If the card has lost its redundancy state, it can still operate with the other clock. This problem may be localized to the line card or may be a global event caused by a malfunctioning CSC card. In the latter case, all line cards will show this condition.

Recommended Action Verify that the other clock is correctly using the show controller clock command.

Error Message

%MBUS-2-CLKSYNC: [chars] could not lock to [chars]. Clocks could not be configured as redundant

Explanation An attempt to lock the fabric clocks has failed. A hardware failure has occurred. This message indicates that clock or scheduler redundancy cannot be achieved in this configuration. If this failure occurs during the boot process, the system primary clock will be chosen by a majority rule; that is, the primary clock will be the clock to which the majority of the cards are synchronized. If this failure occurs during an OIR event, the initial primary clock will be maintained. Cards that do not synchronize to the selected primary clock will not operate over the fabric. Use the show controller clock command to check the clock configuration for the individual cards.

Recommended Action Replace or reinsert the CSCs and try again. If the condition persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS-3-CSCCLK: Fab CLOCK FPGA in Slot [dec] did not see all Fabric Clocks. FAB_CLK_FPGA_fabClkSts Register = [hex] If bit 0 of the register is set implies clk_0 is bad if bit 1 of the register is set implies clk_1 is bad Fabric Clocks could not be configured as redundant.

Explanation There are two CSCs in the system, but they cannot synchronize with each other. They are therefore configured as nonredundant.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS-3-CSC_ONLY: Slot [dec] can only have CSC cards

Explanation Slots 16 and 17 can contain only CSCs.

Recommended Action Remove any card that is not a CSC from the specified slot. If you are sure it is a CSC card, verify that the EEPROM is programmed correctly. To read the EEPROM contents, use the show diags details command and report the output to your Cisco technical support representative.
Error Message

%MBUS-6-CSC_OVER_BKPL: [chars] overriding backplane nvram chassis type [chars]

Explanation The CSC represents a different chassis type from what is programmed into the chassis backplane NVRAM.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS-6-DISCOVERED_CARDS: [dec] [chars] present in [hex] (bitmask)

Explanation This message reports the list of discovered cards.

Recommended Action No action is required.

Error Message

%MBUS-2-DNLDFAIL: [chars] download to slot [dec]

Explanation The specified image could not be downloaded to the card. The card will be automatically reset and the download retried.

Recommended Action Try resetting, power-cycling, or reinserting the card. If the condition persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS-0-DOWNREV: [chars] [dec] [chars]

Explanation The specified module is of a downlevel version. This fabric downloader, MBUS Agent RAM or another component could be the cause of this condition. The error message text specifies more information regarding this condition.

Recommended Action Ensure that the fabric downloader or the other version specified in the error message text is synchronized with the one from the current Cisco IOS software release that is running on the primary GRP. Enter the upgrade all slot-number command, with slot-number being the slot number of the line card, to synchronize the version of the MBUS agent RAM, the fabric downloader, and other components on the line card. A system reload will correct this condition most of the time. However, in some rare circumstances, a power cycle is required to recover the line card. Ensure that enough route memory is present on the line card to support your Cisco IOS software release. More information is available at “Upgrading Line Card Firmware on a Cisco 12000 Series Router” at the URL http://www.cisco.com/warp/public/63/17.html.
**Error Message**

%MBUS-3-EEPROM: Failed read EEPROM location [hex] in slot [dec] [chars]

**Explanation** An attempt to read the EEPROM contents in the specified slot has failed. The line card is most likely not recognized.

**Recommended Action** Ensure that the line card is supported in your current Cisco IOS software release. Attempt to reseat the line card. If the EEPROM is still not recognized, the `upgrade all slot-number` command, with `slot-number` being the slot number of the line card, to synchronize the version of the MBUS agent RAM, the fabric downloader, and other components on the line card. You might also reload or power cycle the router to try to recover the line card. If the problem still occurs, copy the error message text exactly as they appear on the console or in the system log, enter the `show tech-support` command, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MBUS-6-FABCONFIG: Switch Cards [hex] (bitmask) Primary Clock is [chars] Fabric Clock is [chars] Bandwidth Mode : [chars]

**Explanation** The Switching fabric (both SFC and CSC) is configured as specified in the error message text. The primary clock is either a CSC0 (slot 16) or CSC1 (slot17). The fabric clock might be redundant if a second Clock Scheduler Card is present. The bandwidth mode might be full if at least 4 SFCs or CSCs are used. More information on this messages can be found at “Cisco 12000 Series Internet Router: Switch Fabric” at the URL http://www.cisco.com/warp/customer/63/arch_12000_switchfabric.html#1.-Redundancy and Bandwidth.

**Recommended Action** This is an informational message only. No action is required.

**Error Message**

%MBUS-0-FAB_FAILURE: Unrecoverable fabric error detected on switch card [int]

**Explanation** Errors have been detected by the line card or RP from the specified switch card. However, because of the lack of redundancy in the fabric, this card cannot be removed.

**Recommended Action** Replace this switch card. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MBUS-0-FABINIT: Failed to initialize switch fabric infrastructure

**Explanation** The switch fabric infrastructure has failed to initialize. At least one CSC must be detected and configured.

**Recommended Action** Insert a CSC card. If a CSC card is present, verify that it is seated correctly and power-cycle or reboot the Internet router. If the condition persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MBUS-6-FIA_CONFIG: Switch Cards [hex] (bit mask); Primary Clock [chars]

**Explanation**  The FIA was configured as specified in this message.

**Recommended Action**  No action is required.

Error Message
%MBUS-6-FIA_STATE: [chars]

**Explanation**  The FIA has been halted.

**Recommended Action**  No action is required.

Error Message
%MBUS-2-FIRMWARE: RAM version download to slot [dec] failed

**Explanation**  The RAM version of the MBus agent firmware could not be downloaded to specified slot. This message may be caused by either a software or a hardware bug.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBUS-3-GETMSGFAIL: Failed getting process message from MBUS device [int] -- [chars]

**Explanation**  An MBus message and an error message were sent back. An internal software error has occurred.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBUS-0-GRP_NO_FRAMESYNC:

**Explanation**  The GRP has not seen the frame synchronizations within the required intervals. The GRP must see frame synchronizations every 1.04 milliseconds.

**Recommended Action**  Power-cycle the Internet router. If condition persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%MBUS-6-GRP_STATUS: [chars] [dec] [chars]

**Explanation**  This message provides GRP master or slave status information.

**Recommended Action**  No action is required.

**Error Message**

%MBUS-3-INSUFF_BW: Insufficient fabric bandwidth to launch and operate card in slot [dec]

**Explanation**  Some line cards (for example, 4 Port E.D. Packet over SONET OC-12c/STM-4 and 1 Port E.D. Packet over SONET OC-48c/STM-16) cannot operate in quarter-bandwidth mode. Full fabric bandwidth must be available to launch and operate these line cards. Full fabric bandwidth is typically achieved by either one CSC and three SFCs, or two CSCs and two SFCs. To obtain fully redundant, full-fabric bandwidth, you must use a configuration of two CSCs and three SFCs. In any case a minimum of one CSC and three or more additional switch cards (CSC or SFC) are required for full-fabric bandwidth.

**Recommended Action**  Make sure the CSCs and SFCs are properly inserted and in good working condition. Ensure that there is a total of four working switch cards and that at least one switch card is a CSC. If any switch card is missing or nonoperational, contact your Cisco technical support representative.

**Error Message**

%MBUS-3-IOSCRASH: Slot [dec]

**Explanation**  The ROM monitor reports that the Cisco IOS software on the line card has crashed.

**Recommended Action**  The line card is automatically reset by the GRP. If the problem persists, try reinserting the line card. If this error message recurs, run diagnostics on the line card.

**Error Message**

%MBUS-2-LAUNCHERR: [chars] for Slot [dec] status [hex]

**Explanation**  The specified module could not be successfully launched.

**Recommended Action**  Reset the line card. If the condition persists, copy the error message exactly as it appears, along with previous error messages and report it to your Cisco technical support representative.

**Error Message**


**Explanation**  The fabric configurations for the cards are assigned by the master GRP. The configurations may be temporarily different during reconfiguration of fabric (such as the insertion, removal, or malfunction of switch cards) because the GRP has changed its configuration but has not
yet notified the line card. The line card may modify its FIA configuration without changing its bandwidth mode. In addition, it is permissible for the line card to have a different primary clock if there are two CSCs that are configured as redundant.

**Recommended Action**  
No action is required.

**Error Message**

%MBUS-6-MODEL_INVALID: Chassis Model invalid [dec] (CSC types([hex],[hex]) invalid for override)

**Explanation**  
The model type programmed into the backplane NVRAM was invalid. The CSCs in the chassis also contained invalid model types.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MBUS-3-MSGTOOBIG: MBUS message length too big (dev=[int],type=[int],len=[int])

**Explanation**  
An MBus message received exceeds the maximum size of 254 bytes. This error indicates a software defect.

**Recommended Action**  
Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MBUS-0-NOCARDS: No Cards detected in slots 1 - [dec]

**Explanation**  
No cards were detected. At least the GRP must be discovered by the MBus.

**Recommended Action**  
Power-cycle the Internet router and retry. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MBUS-0-NOCSC: [chars]

**Explanation**  
At least one CSC must be present in the system.

**Recommended Action**  
If necessary, insert a CSC in slot 16 or 17 and reboot the system. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%MBUS-0-NOFABCARD: There must at least be a CSC card in slot 16 or 17.

Explanation  No fabric card was detected in the system.

Recommended Action  If necessary, insert a CSC in slot 16 or 17 and reboot the system. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS-3-NOFABCLK: Slot [dec] does not see any fabric clock
Card will not operate on fabric

Explanation  The slot must see the fabric clock from at least one of the CSCs.

Recommended Action  Reset, power-cycle, or reinsert the card. If the error persists, copy the error message exactly as it appears, along with previous error messages, and report it to your Cisco technical support representative.

Error Message

%MBUS-0-NIMAGE: [chars]

Explanation  The image was missing in the bundle linked with this Cisco IOS image. The image is required for downloading. A missing image usually signifies a build problem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS-3-NOPROCESS: Failed creating User LED Process

Explanation  The call to create a user LED process failed when creating the process used to handle the timers for the user commands to write to the LEDs. The only effect of this failure is that the user commands to write LED messages will not work, but there may be more serious problems if the Cisco IOS software is having trouble creating processes during initialization.

Recommended Action  Reboot the router. If the condition persists but is confined to this process, ignore the problem and continue.

Error Message

%MBUS-2-NORESPONSE: From [chars] agent. [chars]

Explanation  The interface to the MBus agent firmware is no longer responding. An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MBUS-6-OIR: [chars] [chars] [dec]

Explanation  An OIR event was detected as specified in the message.

Recommended Action  No action is required.

Error Message
%MBUS-0-OLD_SCA: Old SCA found on clock switch card (CSC) in slot [dec]

Explanation  The CSC is an old or nonproduction card.

Recommended Action  Obtain a new CSC from your Cisco technical support representative.

Error Message
%MBUS-3-READREG: Failed to read register [hex] in slot [dec] [chars]

Explanation  An attempt to read the register in the specified slot has failed.

Recommended Action  Check other error messages that follow.

Error Message
%MBUS-5-REBOOT: [chars] [dec] [chars]

Explanation  The line card is being reset because it was not downloaded or configured by this GRP. The GRP must be able to synchronize with the line card state in order to prevent a reset of the entire chassis on every boot of the GRP. This condition will also occur when the GRP is booted with a newer (potentially incompatible) version of Cisco IOS software. The line card will be reset and a compatible image downloaded.

Recommended Action  Avoid a reboot of the GRP when the line cards are configured and running.

Error Message
%MBUS-3-REGISTER: Status change from unknown register [hex] in slot [dec] Value = [hex]

Explanation  A register that was not being monitored has indicated a status change. This is probably a software error.

Recommended Action  If the condition persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MBUS-0-REGISTRY: Failed to create registry [chars] [chars]

Explanation  The specified registry could not be created. This is a catastrophic error for this feature. This condition requires the intervention of a Cisco software developer for a solution.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBUS-3-SC_REMOVED: Switch card [int] being removed from fabric configuration.

Explanation  Errors have been detected by the line card or the RP from the switch card specified in this log message. This card has been removed from the fabric configuration and has been powered down.

Recommended Action  Remove or replace this clock switch card and contact your Cisco technical support representative.

Error Message
%MBUS-0-SELFDISCOVER: Unknown GRP slot number. Power cycle the GSR and retry

Explanation  At least the local GRP must be discovered by the MBus.

Recommended Action  Power-cycle the Internet router and retry.

Error Message
%MBUS-3-SFC_ONLY: Slot [dec] can only have SFC cards

Explanation  Slots 18 through 20 can contain only SFCs.

Recommended Action  Remove cards that are not SFCs from the specified slot. If you are sure it is an SFC, verify that the EEPROM is programmed correctly. Use the show diags details command to read the EEPROM contents and report it to your Cisco technical support representative.

Error Message
%MBUS-3-SFLOCK: CSC in Slot [dec] failed to phase lock CSC_FPGA_MCLK = [hex] bit 5 of the register is set Fabric Clocks could not be configured as redundant

Explanation  The specified CSC was to be designated as the secondary clock, but it failed to phase-lock with the primary clock. The primary and secondary clocks are therefore not configured in the redundant mode.

Recommended Action  Copy the error message exactly as it appears, along with previous error messages, and report it to your Cisco technical support representative.
Error Message
%MBUS-6-STATECHANGE: New state is ‘[chars]’

Explanation  The dial shelf interface changed state with respect to MBus control and became either a master or a slave. In a dial shelf with just one DSI, it must always be a master.

Recommended Action  This message is informational only. No action is required.

Error Message
%MBUS-6-SWITCHED_FABCLK: Slot [dec] switched to [chars]

Explanation  The selected clock has changed state on the card. If the slot was configured with a redundant clock, then this is the new clock for this card. It should continue functioning in nonredundant mode. If the redundancy mode is maintained, the clock should not switch (unless there is an external user specification or command forcing it to do so).

Recommended Action  No action is required.

Error Message
%MBUS-3-TIMEOUT: Timed out waiting for MBUS response from device [int] -- [chars]

Explanation  An MBus message that was sent has timed out while waiting for a response. This error could be caused by possible hardware or software problems. Some of the hardware that could cause this problem are the MBus module on RP, the slot it was sending the message to, and the GRP.

Recommended Action  If the message is infrequent, no action is necessary. If the problem always is associated with a single slot or MBus device, Cisco recommends that you replace the MBus module or the whole FRU (such as the line card or power supply). If the problem is associated with many different slots or MBus devices, it is recommended that you replace the RP MBus module or the whole GRP. If replacing hardware does not solve the problem, or if the problem is persistent or involves frequent timeouts, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBUS-3-UNKNOWN_REGISTER: Status change message for register [hex] in slot [dec], value = [hex]

Explanation  The MBus agent for the specified slot has reported a status change for a register that is no longer being monitored.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MBUS-6-UNUSED_SFC: In slot [dec]

Explanation The set bandwidth mode does not require the specified SFC. The switch fabric card will be ignored for the configuration. Removing the SFC will not alter the system performance.

Recommended Action Ensure that the bandwidth mode of the fabric is the expected bandwidth.

Error Message
%MBUS-3-WAKEUP: Could not set wake up reason (pid=[int]) -- [chars]

Explanation The process wakeup reason was changed while sending an MBus message and waiting for a response. An error has occurred in getting the current wakeup reason for the process. This problem was caused by an error in the scheduler or some other software bug in the MBus code.

Recommended Action Report this problem to a Cisco technical support representative, providing the exact error message text in addition to the traceback that accompanies it. If the problem recurs frequently, reload the router.

MBUS_SYS Messages

The following are maintenance bus (Mbus) system error messages.

Error Message
%MBUS_SYS-3-ENQUEUE: Failed to queue message from slot [dec] stream [dec]

Explanation An attempt to queue a message from the interrupt for process-level software has failed. The message will be dropped. The dropped message indicates a potential problem in the MBus process-level message handling. This error can occur if there are problems with the MBus process specifically or with Cisco IOS process-related issues generally. This error may also happen if the MBus process is not scheduled for extended periods of time and there is heavy MBus traffic.

Recommended Action If this is a persistent problem, either the MBus process is dead or there are other Cisco IOS-related problems. Consider rebooting the GRP if possible.

Error Message
%MBUS_SYS-3-MAXSIZE: Message from slot [dec] stream [dec] of length [dec] > max message size [dec]

Explanation A message from a slot has exceeded the maximum message size of 254 bytes and therefore will be dropped. This error should not happen during normal operation.

Recommended Action To verify the functionality of MBus, use the show mbus counters and the show mbus can-error commands. If any particular card shows errors and this condition persists, try reloading the card if possible. The error counts in the show mbus command can be cleared using the clear mbus-statistics command.
Error Message
%MBUS_SYS-3-MSGINVCHN: MBUS invalid channel selected 
(dev=[int],type=[int],channel=[dec],len=[int])

**Explanation** The software tried to send a message on an invalid MBus channel.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBUS_SYS-3-MSGTOOBIG: MBUS message length too big 
(dev=[int],type=[int],len=[int])

**Explanation** The software tried to send a message with a length greater than the maximum message size of 254.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MBUS_SYS-3-NOBUFFER: Message from slot [dec] in stream [dec] dropped

**Explanation** A message from the slot was dropped because there were no MBus buffers available. Either the messages are coming too fast or the process-level message handling is not processing the messages quickly enough.

**Recommended Action** This condition should correct itself. Check to see if the GRP is being inundated by messages from the chassis. If the condition persists, consider rebooting the GRP.

Error Message
%MBUS_SYS-3-NOCORRANCH: Failed to allocate MBUS channel for over 10 secs

**Explanation** No MBus channel could be allocated for sending messages. Either there is very heavy MBus traffic or there is a hardware problem. If traffic is temporarily heavy, the condition will clear itself. In case of hardware errors, either the MBus agent has failed or the hardware interface to the mailbox is not processing the messages. Resetting the processor, including the agent, may clear the problem. If the problem persists, the card probably has hardware problems and needs diagnosis.

**Recommended Action** Power-cycle the card. If the problem persists, the card may be defective and should be replaced.
Error Message

%MBUS_SYS-3-REASSEMBLY: Error slot [dec], stream [dec] [chars]

Explanation A reassembly error was detected for the given slot and stream combination. Either the slot-and-stream combination was incorrect (so it gave an invalid reassembly buffer index) or the first and last (or last few) packets were lost. The message will be dropped and may cause errors for the application running over the MBus.

Recommended Action This condition should correct itself. No action is required.

Error Message

%MBUS_SYS-0-REGISTRY: Failed to create registry [chars] [chars]

Explanation The specified registry could not be created. The inability to create the registry is a catastrophic error for this feature. This condition requires the intervention of a Cisco software developer for a solution.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MBUS_SYS-3-SEQUENCE: Sequencing error (slot [dec], stream [dec]): expected [dec], received [dec]

Explanation An incorrect sequence number was detected in a multi-packet message. This error could occur if one or more packets were dropped or the source packetized the message incorrectly.

Recommended Action Check to see if there is excessive MBus activity, such as copious printing from a line card. To determine the lost message count, use the show mbus counters command.

Error Message

%MBUS_SYS-3-TIMEOUT: Timeout on mbus request. Dest = [int], type = [int], addr = [hex]

Explanation No response was received from an MBus request. This request was for either an EEPROM field or a register read.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%MBUS_SYS-3-TXERR: Failed to transmit MBUS message for over 10 secs

**Explanation** Message could not be transmitted because all the transmit buffers have been full for more than 10 seconds. This may be a temporary problem if there is heavy MBus traffic. Otherwise, the error probably indicates a hardware problem. Either the MBus agent is not responding or the hardware interface is not generating interrupts.

**Recommended Action** If this is a persistent problem, power-cycle the card. If the problem still continues, it is likely to be a hardware problem that requires diagnosis.

**Error Message**

%MBUS_SYS-3-UNEXPECTED: Unexpected response key = [int], current key = [int]

**Explanation** An unexpected response to a read register or to a read EEPROM was received.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**MC3810_DSX1 Messages**

The following are MC3810 DSX1 subsystem error messages.

**Error Message**

%MC3810_DSX1-3-ERROR: [chars]

**Explanation** An internal software error has occurred.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MC3810_DSX1-5-MC3810_NOTICE: [chars]

**Explanation** This is a notification message.

**Recommended Action** This message is for informational purposes only. No action is required.
MCAST Messages

The following are Layer 2 multicast error messages.

Error Message
%MCAST-6-GC_LIMIT_EXCEEDED: IGMP snooping was trying to allocate more Layer 2 entries than what allowed ([dec])

Explanation The allocation of Layer 2 entries has been limited in order to conserve system resources.

Recommended Action To set the limit of Layer 2 entries, enter the `ip igmp snooping l2-entry-limit` configuration command. Increasing the value of the `max-entries` argument could cause a reload by increasing the use of system resources.

Error Message
%MCAST-6-IGMP_CGMP_MODE: IGMP snooping now is running in IGMP_CGMP mode on vlan [dec]

Explanation IGMP snooping has detected a switch or a router that uses the CGMP protocol. As a result, IGMP is now running in IGMP_CGMP mode so that other devices that use CGMP protocol can function.

Recommended Action No action is required.

Error Message
%MCAST-6-IGMP_ONLY_MODE: IGMP snooping now is running in IGMP_ONLY mode on vlan [dec]

Explanation IGMP snooping is now running on a network where there are no devices that use the CGMP protocol. Because IGMP snooping does not have to support the CGMP protocol, it is running in IGMP_ONLY mode.

Recommended Action No action is required.
The following are multicast distributed switching error messages.

Error Message
%MDS-2-LC_INIT: Error initializing linecard

Explanation System resources could not be allocated on the line card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MDS-2-LC_INVALID_MROUTE_MSG: Unknown message received from RP

Explanation The route processor has sent an unrecognized route event.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MDS-2-LC_INVALID_MSG: Unknown IPC received from RP

Explanation The route processor has sent an unrecognized message type.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MDS-2-LC_INVALID_SIZE: Unknown IPC size received from RP

Explanation The route processor has sent an invalid IPC size.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%MDS-2-LC_NOIPCBUFFR: No IPC buffers available for messages to be sent to the RP

Explanation The IPC subsystem has run out of buffers.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MDS-3-ROUTECOUNT_ZERO: Multicast route count reached zero

Explanation The running count of multicast routes is zero. The running count should be a number other than zero.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MDS-4-ROUTELIMIT: [int] routes exceeded multicast route-limit of [dec]

Explanation The number of multicast routes has exceeded the maximum configured number. New routes cannot be added unless the configuration is changed.

Recommended Action If multicast traffic has priority on this router, use the ip multicast route-limit command to increase the number of multicast routes. Otherwise, no action is required.

Error Message
%MDS-2-RP: [chars]

Explanation The route processor either cannot allocate memory or has missing data.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
MEMSCAN Messages

The following are memory scan error messages.

Error Message

%MEMSCAN-2-BSSREG: Parity error([hex]) found in imagebss region

Explanation  A parity error was found in the Business Support System region of memory.

Recommended Action  Schedule a reboot of the system to clear memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

Error Message

%MEMSCAN-2-DATAREG: Parity error([hex]) found in imagedata region

Explanation  A parity error was found in the data region of the memory.

Recommended Action  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

Error Message

%MEMSCAN-3-DUPERR: Another parity error([hex]) found in block([hex]). Not scrubed

Explanation  Multiple parity errors have been found in a memory block.

Recommended Action  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

Error Message

%MEMSCAN-3-INHEAD: Parity error([hex]) found in block header

Explanation  A parity error has been found in the block header.

Recommended Action  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.
**Error Message**

%MEMSCAN-3-INPREV: Parity error([hex]) found in block field **previous

**Explanation**  A parity error has been found in a critical field of a block header.

**Recommended Action**  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

**Error Message**

%MEMSCAN-3-INUSE: Parity error([hex]) found in busy block([hex])

**Explanation**  A parity error has been found in a busy block that cannot be scrubbed or removed.

**Recommended Action**  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

**Error Message**

%MEMSCAN-6-LINKED: Error([hex]) block([hex]) linked, size [dec]

**Explanation**  A parity error was found in a free block that could not be scrubbed. The free block has been moved so that it cannot be accessed again.

**Recommended Action**  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

**Error Message**

%MEMSCAN-6-MSCRUBED: Parity error([hex]) scrubed multiple times

**Explanation**  Multiple parity errors were found at the specified address.

**Recommended Action**  Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

**Error Message**

%MEMSCAN-6-SCRUBED: Parity error([hex]) scrubed

**Explanation**  One or more memory parity errors were found and scrubbed.

**Recommended Action**  No action is required.
Error Message

%MEMSCAN-6-SPLIT: Error([hex]) block([hex]) split, bad block([hex]) linked, size [hex]

Explanation A parity error was found in a free block that could not be scrubbed. The free block has been fragmented, and the fragment that contains the parity error has been moved so that it cannot be used again.

Recommended Action Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

Error Message

%MEMSCAN-2-TEXTREG: Parity error([hex]) found in imagetext region

Explanation A parity error was found in the text region of memory.

Recommended Action Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

Error Message

%MEMSCAN-3-UNKNOWN: Parity error([hex]) found in other(unknown) region

Explanation A parity error was found in an unknown region of the memory.

Recommended Action Schedule a reboot of the system to clear the memory as soon as possible. An attempt to remove the parity error during the normal operation of the router will cause it to reload. If more parity errors are found at this address after the reboot, replace the DRAM in the router or the processor board.

MGCP Messages

The following are Media Gateway Control Protocol (MGCP) error messages.

Error Message

%MGCP-2-INTERNAL_CRITICAL: [chars]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%MGCP-3-INTERNAL_ERROR: [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%MGCP-4-INTERNAL_WARNING: [chars]

Explanation  An internal software error has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

MGCP_APP Messages

The following are Media Gateway Control Protocol (MGCP) application-specific error messages.

Error Message

%MGCP_APP-6-CALL_REC_DATABASE_FAILED: Failed to create call record database

Explanation  An attempt to create a call record database has failed.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%MGCP_APP-6-CCAPI_APP_REGISTER_FAILED: Failed to register MGCP Application with CCAPI

Explanation  An attempt to register the MGCP application with the CCAPI has failed.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%MGCP_APP-6-DNS_QUEUE_FAILED: Failed to create DNS message watched queue

Explanation An attempt to create a DNS message watched queue has failed.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MGCP_APP-6-ENDPT_DATABASE_FAILED: Failed to create endpoint database

Explanation An attempt to create the endpoint database has failed.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MGCP_APP-6-EVT_NODE_ALLOC_FAILED: Failed to allocate memory for event node

Explanation A memory allocation for the event node has failed.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MGCP_APP-6-GEN_INIT_FAILED: Failed to initialize MGCP services

Explanation An attempt to initialize MGCP services has failed.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MGCP_APP-6-GEN_INIT_NO_IP_INTF_FAILED: Suspended initialization of MGCP services. No IP interface up yet

Explanation The initialization of MGCP services has been suspended. No IP interface has been brought up yet.

Recommended Action Ensure that there is at least one interface configured with an IP address.

Error Message
%MGCP_APP-6-PROCESS_CREATION_FAILED: Cannot create MGCP application process

Explanation An attempt to create the MGCP application process has failed.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%MGCP_APP-6-RTP_SERVICES_INIT_FAILED: Failed to start VOIP call leg

Explanation  An attempt to start a VOIP call leg has failed.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MGCP_APP-6-SOCKET_OPEN_FAILED: Failed to open UDP port for MGCP

Explanation  An attempt to open a UDP port for the MGCP process has failed.

Recommended Action  Ensure that no other application is using the same UDP port number.

Error Message
%MGCP_APP-6-SYS_QUEUE_FAILED: Failed to create MGCP system message watched queue

Explanation  An attempt to create the MGCP system message watched queue has failed.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MGCP_APP-6-TFTP_QUEUE_FAILED: Failed to create TFTP message watched queue

Explanation  An attempt to create the TFTP message watched queue has failed.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

MICA Messages

The following are Modem ISDN Channel Aggregation (MICA) error messages.

Error Message
%MICA-3-BADIMAGE: Cannot download version [chars] on module [dec]

Explanation  The block information that is necessary for downloading modem firmware is missing for the indicated firmware version.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MICA-3-BADMODEM: Modem [dec] went bad

Explanation  Run-time checks for modem health have determined that the indicated modem is no longer functional. The loss of functionality was caused by a hardware or software error.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-BADMODULE: Module in socket [dec] is of unknown type (board-id=[dec])

Explanation  The modem module in the socket indicated by the message is invalid, possibly because the serial EEPROM on the module was not programmed correctly.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MICA-3-BADMSG: Bad msg from modem([dec]/[dec]): opcode/arg = [hex]/[hex]

Explanation  A message that was not expected by the driver has been received from the modem. If the hardware is newer than the software, this could mean that a new response cannot be handled. Otherwise, it is possible that data corruption has occurred in the hardware.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MICA-3-BADPARAM: Modem [dec]: [chars] while handling [chars].

Explanation  The modem state machine has received a bad parameter, as indicated by the error message.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MICA-3-BADRXOPCODE: Bad mail message opcode from modem [dec]: opcode = [hex]

Explanation  A message that has an illegal operation code was received from the specified modem.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-BADTXOPCODE: Bad tx mail message opcode = [hex]

Explanation  An attempt has been made to send a message that has an illegal operation code to the specified modem.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-BOARD_DL_FAIL: Slot [dec] Boardware download failed because of [chars], all modems are marked bad

Explanation  A MICA modem has failed to download its onboard software. This error was probably caused by a communication error between the router and the MICA hardware.

Recommended Action  Try power-cycling the router. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-5-BOARDWARE_RUNNING: Slot [dec] is running boardware version [char].[char].[char].[char]

Explanation  This message indicates the successful startup of the onboard software on one MICA modem port.

Recommended Action  No action is required.

Error Message
%MICA-1-BOOTFLASH: [chars]

Explanation  A MICA modem firmware download file is not found in boot Flash memory.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MICA-1-BRDCRASHED: Slot [dec] MICA Board Crashed, Going to Recover

   Explanation  A MICA modem board has crashed. The router will automatically restart and reload.

   Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-1-BRDINITFAIL: Slot [dec] MICA Board Init Failed : [chars]

   Explanation  A MICA modem board has failed to reset and initialize.

   Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-CONTIGUOUS: Contiguous packet sent for transmit

   Explanation  A software error has occurred. As a result, an unexpected packet was prepared for transmission and dropped.

   Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-CRASH: Runtime error on MICA module [dec] Hex [dec]

   Explanation  A software error that involves the modem firmware running on the specified modem module has occurred.

   Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-INBANDNAK: Inband NAK from modem [dec] -- payload [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

   Explanation  An in-band message that was sent to the specified modem has been rejected.

   Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%MICA-3-INBAND_UNKNOWN_OPCODE: Inband message with unknown opcode received from modem [dec] -- payload [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]

Explanation An in-band message that has unknown operation code has been received from the specified modem.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MICA-6-INIT: Modem module [dec] initialized

Explanation The indicated modem module has been successfully initialized.

Recommended Action No action is required.

Error Message

%MICA-3-INVALID_PARAM: Mica sent invalid stack address or length, MICA module [dec], addr [hex], length [dec]

Explanation A run-time error has occurred on the MICA, causing it to send an invalid stack address or length.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MICA-3-MODEMBAD: Modem number [dec]/[dec] is bad, Error code is [hex]

Explanation A message from the MICA modem driver indicates that the specified modem is bad.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MICA-5-MODEM_RECOVERY: Modem ([dec]/[dec]) is being recovered by [chars]

Explanation The specified modem has been repeatedly failing to connect and is subsequently being recovered.

Recommended Action No action is required.
Error Message
%MICA-5-MODEM_RECOVERY_FAIL: Modem ([dec]/[dec]) recovery failed: [chars]

Explanation  Modem recovery has failed.

Recommended Action  No action is required.

Error Message
%MICA-3-NAK: NAK from modem [dec] in state [dec] -- payload [hex]

Explanation  A message sent to the specified modem has been rejected.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-NOBOARDWARE: Boardware is not bundled in this IOS image

Explanation  This Cisco IOS image does not contain the onboard software necessary for MICA modems.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-NOBUF: No msg buffer for Modem([dec]/[dec]) in [chars]:[dec]

Explanation  The MICA software was unable to allocate a packet buffer. The system may be out of memory.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MICA-3-NOENTRIES: Exhausted [chars] DMA entries for module [dec]

Explanation  The software structures that are used to drive the DMA engines were temporarily exhausted while attempting the task specified in the error message. As a result of this error, the task was aborted.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MICA-3-NOIDB: No IDB structure for modem [dec]

Explanation  A software structure was found in an unexpected state during the run time for the specified modem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-NOMAILELEMENTS: Exhausted free mail elements for modem_num [dec]

Explanation  The software structures that are used to receive and transmit messages from the MICA modems were temporarily exhausted.

Recommended Action  If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-NOMEMORY: Failed To Allocate Memory for MICA modem mgmt

Explanation  The requested operation could not be accomplished because of a low memory condition.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MICA-3-NOPPPCTX: No PPP context structure for modem [dec]

Explanation  A software structure was found in an unexpected state during the run time for the specified modem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-NORXPAK: Static receive paktype unavailable

Explanation  A software structure was found in an unexpected state during the run time for the specified modem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%MICA-3-NOTPLX: Bad vendor id from PLX 9060SD -- value was [hex]

**Explanation** A hardware error involving the PCI interface chip has occurred.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%MICA-3-NOTTY: No TTY structure for modem [dec]

**Explanation** A software structure was found in an unexpected state during the runtime for the indicated modem.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%MICA-3-PORTWARE: Bad version [chars] portware: [chars]

**Explanation** Verification tests could not confirm the firmware image for the specified version of modem firmware that is bundled into the modem card image.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**Error Message**

%MICA-4-PWDL_FILENOTFOUND: Slot [dec] Module numbers [chars] are running default IOS image, file [chars] not found in flash

**Explanation** The MICA modem onboard software was provided from the running Cisco IOS software image because the boardware could not be found in Flash memory.

**Recommended Action** No action is required.

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**Error Message**

%MICA-3-PWDNLDTO: Portware download timed out for module [dec]

**Explanation** The diagnostic message that is expected back from a MICA modem after a successful download and initialization of the modem firmware was not received within the allotted time.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MICA-3-RCR: Slot [dec] Looking for [hex], but reading [hex]

Explanation The MICA driver has timed out while waiting for a specific response.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-RESTART: Attempting restart of modem module [dec]

Explanation The specified modem module had a run-time error and therefore was reset. An attempt is now being made to restart the modem module.

Recommended Action No action is required.

Error Message
%MICA-3-TXDESCLIMIT: Packet descriptor count ([dec]) exceeds transmit ring size

Explanation The packet to be sent needed more descriptors than were available on the transmit ring, and the packet was dropped.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-UNEXPEVT: Modem([dec]/[dec]) Unexpected Event: [chars] in [chars]

Explanation An error that was not expected by the driver has been reported by the modem hardware.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MICA-3-UNKNINBAND: Unknown inband msg from modem ([dec]/[dec]): opcode = [hex]

Explanation An unknown in-band message has been received from the indicated modem.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MICA-5-UNKNMODEM: Unknown modem module in Slot [dec] - Modem Module [dec]

Explanation  A MICA modem module has an uninitialized cookie. This error may be caused by a manufacturing error or a problem on the modem module itself.

Recommended Action  Replace the modem module.

Error Message
%MICA-3-WRONGMODULE: Module in socket [dec] (board-id=[dec]) is [chars] module; card is not [chars] card

Explanation  The modem module in the specified socket is inappropriate for the modem card on which it is installed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

MIF68840 Messages

The following are PCI MC68840 FDDI port adapter error messages.

Error Message
%MIF68840-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay

Explanation  The number of interfaces found was not what was expected. This error may indicate a hardware failure.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%MIF68840-3-NOTMIF68840: Bay [dec] device ID seen as [hex], expected [hex]

Explanation  The FDDI driver has failed to initialize.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%MIF68840-5-NOTSUPPORTED: ’[chars]’ command on [chars]

Explanation  The requested device or port is not supported as a FDDI interface.

Recommended Action  No action is required.

Error Message
%MIF68840-3-OWNERR: [chars] packet buffer, pak=[hex]

Explanation  This message indicates an internal software inconsistency.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Issue the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

MIMIC Messages

The following are MCOM integrated modem network module error messages.

Error Message
%MIMIC-3-CONFIGFAIL: The MCOM integrated modem network module in slot [dec] failed to configure. [chars]

Explanation  The MCOM integrated modem network module hardware may be defective.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MIMIC-3-CONTROLLERFAIL: The MCOM integrated modem network module controller in slot [dec] [chars].

Explanation  The MCOM integrated modem network module hardware may be defective.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MIMIC-3-DISCOVER: The MCOM integrated modem network module in slot [dec] failed to initialize properly.

Explanation  The MCOM integrated modem network module hardware may be defective.

Recommended Action  Power down, reinsert the network module, and reboot the system. If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

Explanation  The MCOM integrated modem network module hardware may be defective.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MIMIC-3-INVALID_PCI_ID: The network module hardware reports an invalid [chars] device id of [hex].

Explanation  The MCOM integrated modem network module hardware may be defective.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MIMIC-3-MODEM_RESET_ERR: The modem in slot [dec] port [dec] failed to reset (status = [hex]).

Explanation  The MCOM integrated modem network module hardware may be defective.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MIMIC-3-NOMEMORY: No memory for [chars] of unit [dec]

Explanation  The router does not have enough memory to perform the specified function.

Recommended Action  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
MISTRAL Error Messages

Error Message
%MIMIC-3-SPECIALCDINUSE: Unable to reset MCOM integrated modem [dec]/[dec].

Explanation  A critical error has occurred, and the device driver has unsuccessfully attempted to reset the modem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MIMIC-4-UNKNOWNPLATFORM: The MCOM integrated modem subsystem is not compatible with this router.

Explanation  The network module is not compatible with the current platform into which it is plugged.

Recommended Action  Power down, remove the network module, and reboot the system.

MISTRAL Error Messages

The following are Mistral ASIC error messages.

Error Message
%MISTRAL-3-COR_MEM_ERR: Correctable DRAM memory error. Count [dec], log [hex]

Explanation  A correctable error has occurred in the DRAM system.

Recommended Action  If additional DRAM errors do not occur, no action is required. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-DUMP: Mistral Global Registers Dump

Explanation  This message provides information regarding the internal state of the Mistral ASIC.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MISTRAL-3-ERROR: Error condition detected: [chars]

Explanation This message provides information regarding an error condition detected by the Mistral ASIC.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-FATAL: An unrecoverable error has been detected. The system is being reset.

Explanation The Mistral ASIC has detected an unrecoverable error condition.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-INFO1: [chars]=[hex]

Explanation This message provides information regarding the internal state of the Mistral ASIC.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-INFO2: [chars]=[hex] ([hex])

Explanation This message provides information regarding the internal state of the Mistral ASIC.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-INVALID_SEND: Invalid send operation (packet on [chars])

Explanation An internal error caused an illegal call to a device driver.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
MISTRAL Error Messages

Error Message
%MISTRAL-3-INV_TX_PACKET: [chars]: packet neither on IBL nor on OBL

Explanation  The packet to be transmitted is neither on the Input Buffer Logic, including the memory for the incoming packet cache, nor on the Output Buffer Logic, including the output buffer memory.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-MORE_COR_ERR: [chars] [dec] correctable DRAM memory errors in previous hour

Explanation  Multiple correctable errors have occurred in the system DRAM

Recommended Action  Reboot the system at the next convenient time. If the error persists after the system reboot, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-NOBUF: Dropping the packet.

Explanation  The Mistral ASIC receive buffer pool has been exhausted. No further input packets can be processed until some buffers are returned to the pool.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MISTRAL-3-RESET: Resetting Mistral due to [chars]

Explanation  The Mistral ASIC is being reset because of internal errors.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
MK5 Messages

The following are MK5025 serial controller error messages.

**Error Message**

%MK5-1-BADRING: Bad [chars] ring size

- **Explanation**: An internal software error has occurred.
- **Recommended Action**: If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MK5-1-INITFAIL: Unit [dec], initialization timeout failure, csr[dec]= [hex]

- **Explanation**: The hardware has failed to initialize correctly.
- **Recommended Action**: Repair or replace the controller.

**Error Message**

%MK5-1-INITNOPPRIM: Unit [dec], initialization failure - No CSR1_PPRIM_INIT_CONF, csr1 = [hex]

- **Explanation**: The hardware has failed to initialize correctly.
- **Recommended Action**: Repair or replace the controller.

**Error Message**

%MK5-1-INITUERR: Unit [dec], initialization CSR1_UERR failure, csr1=[hex]

- **Explanation**: The hardware has failed to initialize correctly.
- **Recommended Action**: Repair or replace the controller.

**Error Message**

%MK5-5-LINEFLAP: Unit [dec] excessive modem control changes

- **Explanation**: Too many modem control interrupts have been received. The port was disabled to prevent excessive use of the CPU.
- **Recommended Action**: Check the cable on the serial port.
Error Message
%MK5-1-MEMERR: Unit [dec], memory error, csr[dec]=[hex]

Explanation A network serial interface has detected a hardware problem.

Recommended Action Repair or replace the controller.

Error Message
%MK5-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation The requested operation could not be accomplished because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%MK5-3-OUTENCAP: Unit [dec], bad output packet encapsulation: [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MK5-3-PLOSTERR: Unit [dec], provider primitive lost, csr0=[hex], csr1=[hex]

Explanation A network serial interface has detected a hardware problem.

Recommended Action Repair or replace the controller.

Error Message
%MK5-3-PPRIMERR: Unit [dec], unexpected provider primitive, csr0=[hex], csr1=[hex]

Explanation A network serial interface has detected a hardware problem.

Recommended Action Repair or replace the controller.

Error Message
%MK5-3-SPURPPRIMERR: Unit [dec], spurious provider primitive interrupt, csr0=[hex], csr1=[hex]

Explanation A network serial interface has detected a hardware problem.

Recommended Action Repair or replace the controller.
Error Message
%MK5-3-UPRIMERR: Unit [dec], user primitive error, csr0=[hex], csr1=[hex]

Explanation  A network serial interface has detected a hardware problem.

Recommended Action  Repair or replace the controller.

MMODEM Messages

The following are integrated modem network module error messages.

Error Message
%MMODEM-3-HWFAIL: Cannot determine hardware version for integrated modem Network Module in slot [dec].

Explanation  The integrated modem network module hardware may be bad.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MMODEM-3-IMAGEBAD: Integrated modem image file [chars] cannot be loaded.

Explanation  The integrated modem override file does not contain valid images.

Recommended Action  The integrated modem network module will be loaded with the default software images. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MMODEM-3-IMAGEHWINCOMPATMAX: Integrated modem image file [chars] cannot be loaded because it requires a minimum integrated modem Network Module hardware version between [hex] and [hex], inclusive.

Explanation  The integrated modem override file is not compatible with the present version of Cisco IOS software that is running on this router. This override file can be used only with specified network module hardware versions. The integrated modem network module will be loaded with the default software images.

Recommended Action  No action is required.
Error Message

%MMODEM-3-IMAGEHWINCOMPATNOMAX: Integrated modem image file [chars] cannot be loaded because it requires a minimum integrated modem Network Module hardware version of [hex].

Explanation  The integrated modem override file is not compatible with the present version of Cisco IOS software that is running on this router. This override file can be used only with specified network module hardware versions. The integrated modem network module will be loaded with the default software images.

Recommended Action  No action is required.

Error Message

%MMODEM-3-IMAGEIOSINCOMPATNOMAX: Integrated modem image file [chars] cannot be loaded because it requires an IOS version between [dec].[dec]([dec].[dec]) and [dec].[dec]([dec].[dec]), inclusive.

Explanation  The integrated modem override file is not compatible with the present version of Cisco IOS software that is running on this router. This override file can be used only with the specified versions of Cisco IOS software. The integrated modem network module will be loaded with the default software images.

Recommended Action  No action is required.

Error Message

%MMODEM-3-IMAGEIOSINCOMPATNOMAX: Integrated modem image file [chars] cannot be loaded because it requires an IOS version of [dec].[dec]([dec].[dec]) or later.

Explanation  The integrated modem override file is not compatible with the present version of Cisco IOS software that is running on this router. The integrated modem network module will be loaded with the default software images.

Recommended Action  If you wish to use this modem override image file, you must upgrade to the specified version of Cisco IOS software.

Error Message

%MMODEM-3-IMAGEWRONGTYPE: Integrated modem image file [chars] cannot be loaded

Explanation  The integrated modem override file does not contain valid firmware images. The integrated modem network module will be loaded with the default software images.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
MODEM Messages

The following are router shelf modem management error messages.

Error Message
%MODEM-4-B2BABORT: Modems ([chars]) and ([chars]) back-to-back test: aborted

Explanation  This tracing message indicates that a back-to-back test has failed between the connection of two specified MICA modems.

Recommended Action  Perform more back-to-back tests by pairing the failed modems with other modems to determine which modem is defective. Check the failed modems again after performing a power-cycle. If the message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MODEM-5-B2BCONNECT: Modems ([chars]) and ([chars]) connected in back-to-back test: [chars]

Explanation  A back-to-back test connection has been made between the selected modems. The test is still in progress.

Recommended Action  No action is required.

Error Message
%MODEM-5-B2BINIT: Auto Back-to-Back test initiated by [chars]

Explanation  This tracing message indicates that an automatic back-to-back test has been initiated by the specified MICA modem.

Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM-5-B2BMODEMS: Modems ([chars]) and ([chars]) completed back-to-back test: success/packets = [dec]/[dec]

Explanation  The reported modems have passed the back-to-back test without any errors.

Recommended Action  No action is required.
Error Message

%MODEM-1-BADEVENT: Invalid modem management [chars] event [hex] for modem([chars])

Explanation  The modem management facility has received an unrecognized event.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-1-BADMODEM: Modem ([chars]) failed [chars]

Explanation  A software or hardware problem has been detected on a modem. The specific modem and reason are listed in the message.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-4-BADMODEMS: Modems ([chars]) and ([chars]) failed back-to-back test: [chars]

Explanation  The two modems reported in the message have failed a back-to-back test. At least one of the modems is defective.

Recommended Action  Perform more back-to-back tests by pairing the failed modems with other modems to determine which modem is defective. Check the failed modems again after performing a power cycle. If the message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-5-CLEAR_NVRAM_NO_FLASH: modem ([dec]/[dec]) downloaded from Bundled IOS

Explanation  The DSP software for the specified modem was downloaded from a bundle linked with this Cisco IOS image because the modem software was unavailable from NVRAM.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-5-CONFIG: Configurations "fast-answer" and "country [chars]" conflict. Configuration "fast-answer" disabled.

Explanation  The fast-answer configuration conflicts with the country setting. The country setting has been given priority and the fast-answer setting has been disabled.

Recommended Action  No action is required.
Error Message
%MODEM-1-DL_DSP_FAIL: Modem ([dec]/[dec]) failed DSP download ([dec]): [chars]

Explanation  The digital signal processor download has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MODEM-5-DL_DSP_GOOD: Modem ([dec]/[dec]) completed DSP download: [chars]

Explanation  The digital signal processor download was successful.

Recommended Action  This message is informational only. No action is required.

Error Message
%MODEM-5-DL_DSP_START: Modem ([dec]/[dec]) started DSP download

Explanation  The digital signal processor download has started.

Recommended Action  This message is informational only. No action is required.

Error Message
%MODEM-1-DL_FAIL: Firmware download failed for slot [dec] module_mask [hex]

Explanation  The modem modules did not send back an “initialized” message after the download.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MODEM-1-DL_FAIL_FILE_XFER: Firmware download failed for slot [dec] module_mask [hex] due to file transfer error

Explanation  The download of a portware file to the modem card over DSIP as part of a modem firmware upgrade attempt has timed out and has failed to complete successfully.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MODEM-5-DLGOOD: Modem ([chars]) completed firmware download: [chars]

Explanation  The specified modem has succeeded in downloading its internal microcode.

Recommended Action  No action is required.
Error Message

%MODEM-1-DL_LOSS_FAIL: Firmware download failure for slot [dec] module [dec]

Explanation The portware download for the module was previously deferred. A later portware download attempt has failed because the information required for the download was lost.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-1-DL_PROC_FAIL: Portware download process creation failed

Explanation A portware download process creation has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-5-DL_START: Modem ([chars]) started firmware download

Explanation The specified modem has begun downloading its internal microcode.

Recommended Action No action is required.

Error Message

%MODEM-5-FLEXIBLE: [chars]

Explanation This message type is created for all messages that have simple ASCII text and do not take any parameters. The message provides details of the error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-1-MBRI_HWREV: The MBRI network module in slot [dec] is incompatible with the digital modems installed in the router.

Explanation The MBRI network module in the specified slot cannot be used with digital modems.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%MODEM-3-MODEM_INFO_CREATE_FAIL: Unable to create modem infos for slot [dec]

**Explanation**  During OIR of this board, an attempt to create the modem information failed because of lack of memory.

**Recommended Action**  Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**

%MODEM-1-MODEMOK: Modem ([dec]/[dec]) [chars]

**Explanation**  This message indicates that the modem is working properly.

**Recommended Action**  No action is required.

**Error Message**

%MODEM-5-MODEM_OK: Modem ([chars]) passed the test

**Explanation**  Tests on the specified modem were successful.

**Recommended Action**  No action is required.

**Error Message**

%MODEM-1-MODEMPOLLOFF: Modem Status Poll Off after bad status poll event [hex] for modem([dec]/[dec] )

**Explanation**  Modem status polling has been turned off because a bad event was received.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MODEM-5-MODEM_RECOVERY: Modem ([chars]) [chars]

**Explanation**  This message provides modem recovery information.

**Recommended Action**  No action is required.

**Error Message**

%MODEM-5-MODEM_RECOVERY_DL: Slot [dec], Module [dec]: [chars]

**Explanation**  This message provides module download information.

**Recommended Action**  No action is required.
Error Message
%MODEM-5-MODEM_RECOVERY_PROCESS: [chars]

Explanation  This message provides modem recovery process information.

Recommended Action  No action is required.

Error Message
%MODEM-3-MODEMSTART_OUTOFMEM: Error -- Unable to allocate memory to startup modem board in slot [dec]

Explanation  A memory shortage has prevented a modem board startup process from completing.

Recommended Action  Issue the show memory command and copy the command output that reports the amount of processor and I/O memory usage. Provide this information, along with the output from the show version command, to your Cisco technical support representative.
MODEM Messages

**Error Message**
%MODEM-5-NO_FLASH_FILE: Flash file [chars] not found for DSP download

**Explaination** The `copy flash modem` command was used to download Microcom modems, but the user later erased the Flash file. The digital signal processor code will be downloaded from the bundled Cisco IOS software.

**Recommended Action** No action is required.

**Error Message**
%MODEM-4-NO_TIME_FOR_DC: Warning -- Not enough time to process DC session

**Explanation** The direct-connect session did not have enough time to complete.

**Recommended Action** If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%MODEM-1-PRI_HWREV: The T1 or E1 network module in slot [dec] is incompatible with the digital modems installed in the router.

**Explanation** This T1 or E1 network module cannot be used with digital modems.

**Recommended Action** Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%MODEM-3-PWDNLDFPROC: Portware download manager process start-up failed

**Explanation** The attempt to start up the portware download manager process at initialization time has failed. As a result, portware download requests cannot be processed.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**
%MODEM-3-UNEXPECTED_DC_EV: Error -- dc state machine received unexpected event=[dec] for modem([dec]/[dec])

**Explanation** The direct-connect session has received an unexpected modem management event.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%MODEM-3-UNEXPECTED_DC_STATE: Error -- dc state machine in unknown state=[dec] for modem([dec]/[dec])

Explanation  The direct-connect state machine is in an unknown state.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-3-UNEXPECTED_RTN_CD_FROM_SND: Error -- unexpected rtn code [dec] after oobp snd for modem([dec]/[dec])

Explanation  After an OOBP message was sent to the specified modem, an unexpected return code was received.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-3-UNEXPECTED_STATUS_EV: Error -- status state machine received unexpected event=[dec] for modem([chars])

Explanation  The status-polling state machine of the modem management subsystem has received an undefined event for or from the specified modem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MODEM-3-UNEXPECTED_STATUS_STATE: Error -- status state machine in unknown state=[dec] for modem([chars])

Explanation  The status-polling state machine of the modem management subsystem for the specified modem has entered an undefined state.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
MODEMCALLRECORD Messages

The following are Modem Call Record error messages.

Error Message
%MODEMCALLRECORD-3-PM_CALL_RECORD_ERROR: [chars]

Explanation  The modem call record log is too large and exceeds the capacity of the system log.

Recommended Action  No action is required.

Error Message
%MODEMCALLRECORD-3-PM_NO_CALL_RECORD_BUF: [chars]

Explanation  A failure to allocate a buffer for building the modem call record has occurred.

Recommended Action  No action is required.

Error Message
%MODEMCALLRECORD-6-PM_TERSE_CALL_FAILED_RECORD: [chars]

Explanation  A terse modem call record could not be created.

Recommended Action  No action is required.

Error Message
%MODEMCALLRECORD-6-PM_TERSE_CALL_RECORD: [chars]

Explanation  A terse modem call record was created.

Recommended Action  No action is required.

MODEM_HIST Messages

The following are router shelf modem history and tracing error messages.

Error Message
%MODEM_HIST-7-CONTROL: [chars]: Control Reply: [hex][hex]

Explanation  A reply to a control message was received. This is a tracing message only.

Recommended Action  This is a debug message only. No action is required.
Error Message
%MODEM_HIST-7-CSM_IC_CALLED_NUM:
[chars]: ISDN incoming called number: [chars]

Explanation  The number of the ISDN line that is receiving a call has been displayed. This is a tracing message only.

Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-CSM_IC_CALLING_NUM:
[chars]: ISDN incoming caller number: [chars]

Explanation  The number of an incoming ISDN caller has been displayed. This is a tracing message only.

Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-3-CSM_MODEMDEAD:
[chars]: Modem failed to go ONHOOK/OFFHOOK, Marking OOS

Explanation  The modem has failed to disconnect and then be connected after a specified amount of time. The modem has been marked as out of service so that it can be recovered. This is a trace log event only.

Recommended Action  No action is required.

Error Message
%MODEM_HIST-7-CSM_OC_CALLED_NUM:
[chars]: ISDN outgoing called number: [chars]

Explanation  A dialed ISDN number has been displayed. This is a tracing message only.

Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-3-DC_EVT_POLL:
[chars]: DC session response: [chars]

Explanation  A DC session response event has occurred. This is a trace log event only.

Recommended Action  No action is required.
Error Message
%MODEM_HIST-3-DC_SESSION: [chars]: DC Session received reply

Explanation The DC session has received a reply. This is a trace log event only.

Recommended Action No action is required.

Error Message
%MODEM_HIST-3-END_CALL: [chars] Modem [dec]/[dec] [chars]

Explanation The end of the modem call has occurred. This is an informational message only.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MODEM_HIST-7-MICA_DEBUG_EVT: [chars]: [chars]:

Explanation A host debug event has been reported by the specified MICA modem. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-MICA_DYNAMIC_EVT: [chars]: [chars]: [chars]

Explanation A dynamic event has been reported by the specified MICA modem. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-MICA_END_CONN_EVT: [chars]: [chars]: [chars]

Explanation An end-connection event from the specified MICA modem has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.
Error Message
%MODEM_HIST-7-MICA_LEAD_EVT:
[chars]: [chars]:[chars], [chars], [chars], [chars]

Explanation A lead event has been reported by the specified MICA modem. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-MICA_OOS_EVT:
[chars]: [chars]
[chars] Cause: [chars]

Explanation An out-of-service event from the specified MICA modem has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-MICA_STARTUP_EVT:
[chars]: [chars] [chars].
[chars] Modem firmware = [dec].[dec].[dec].[dec]

Explanation A successful startup of the specified MICA modem has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-MICA_STATE_EVT:
[chars]: [chars]
[chars] State: [chars]

Explanation A state event has been reported by the specified MICA modem. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-MICA_STATIC_EVT:
[chars]: [chars]: [chars]

Explanation A static event has been reported by the specified MICA modem. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.
Error Message
%MODEM_HIST-7-MICA_STATUS_EVT:
[chars]: [chars]: [chars]: [chars].
[chars] Modem firmware = [dec].[dec].[dec].[dec]

Explanation A status event has been reported by the specified MICA modem. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_ANALOG:
[chars]: Modem Analog signal event: TX = [dec], RX = [dec], Signal to noise = [dec]

Explanation A change in the status of an analog signal has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_CALLER_ID:
[chars]: Caller ID event: [chars]

Explanation Caller ID data has been received. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_CONN_1:
[chars]: Connection event: TX/RX Speed = [int]/[int], Modulation = [chars]

Explanation The establishment of a connection has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_CONN_2:
Direction = [chars], Protocol = [chars], Compression = [chars]

Explanation This message is a continuation of the connection state tracing message.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_CONX_UPDATE:
[chars]: Connection update event: TX/RX Speed = [int]/[int], Modulation = [chars]

Explanation A connection state change has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.
Error Message
%MODEM_HIST-3-POLL_DSP_NEEDED:
[chars]: DSP Image Needed Event

Explanation  A DSP image must be downloaded to the modem to achieve 56K operation.
Recommended Action  Download the DSP image to the modem.

Error Message
%MODEM_HIST-7-POLL_DTR:
[chars]: DTR event: [chars]

Explanation  A change in the DTR signal has occurred. This is a tracing message only.
Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_END_1:
[chars]: End connection event: Retransmits for MNP block (TX/RX) = [dec]/[dec]

Explanation  An end-of-connection status has occurred. This is a tracing message only.
Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_END_2:
Duration = [dec]:[dec]:[dec], Number of TX/RX char = [dec]/[dec]

Explanation  This message is a continuation of the end-of-transmission status message.
Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_END_3:
Local Disc Reason = [chars], Remote Disc Reason = [chars]

Explanation  This message is a continuation of the end-of-transmission status message.
Recommended Action  This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_ERROR:
[chars]: Polling protocol error event: [hex]

Explanation  A polling protocol error has occurred. This is a tracing message only.
Recommended Action  This is a debug message only. No action is required.
Error Message
%MODEM_HIST-7-POLL_EVT_LOST:
[chars]: Status event lost: [hex]

Explanation A polling event has been lost. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_INACT:
[chars]: Modem Activity event: [chars]

Explanation A change in the data activity status has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_MODEM_STATE:
[chars]: Modem State event: [chars]

Explanation A modem state change has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_NO_RESP:
[chars]: No poll response event: [hex]

Explanation No response has been received to a poll. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_PHONE:
[chars]: Phone number event: [chars]

Explanation A phone number is being dialed. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message
%MODEM_HIST-7-POLL_PROGRESS:
[chars]: Call Progress event: [chars]

Explanation The status of a call in progress has been provided. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.
Error Message

%MODEM_HIST-7-POLL_RS232:
[chars]: RS232 event: [chars][char] [chars][char] [chars][char] [chars][char] [chars][char] [chars][char] [chars][char] [chars][char]

Explanation RS-232 (EIA/TIA-232) events have occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message

%MODEM_HIST-7-POLL_TX_RX:
[chars]: TX/RX event: TXD=[chars], RXD=[chars]

Explanation Transmit-and-receive events have occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message

%MODEM_HIST-7-POLL_UNKNOWN:
[chars]: Unknown or lost event [hex]

Explanation The modem event history contains an unrecognized event. One or more events may be missing from the trace.

Recommended Action This condition could be caused by insufficient space for storing the modem history. If these events are desirable, a possible remedy is to shorten the number of events recorded between history dumps. Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%MODEM_HIST-7-STARTUP:
[chars]: Startup Response: [chars].
Modem (boot) firmware = [dec].[dec].[dec] ([dec].[dec].[dec])

Explanation The successful startup of the specified modem has occurred. This is a tracing message only.

Recommended Action This is a debug message only. No action is required.

Error Message

%MODEM_HIST-7-TRACE_HDR: 

[chars] Modem [chars] Events Log:

Explanation This is the initial message for the trace of the specified modem. The stored trace messages for the modem will follow.

Recommended Action This is a debug message only. No action is required.
Error Message
%MODEM_HIST-7-UNKNOWN_FRAME: \n[chars]: Error in events log

Explanation  A formatting error has occurred in the modem event history. One or more events may be missing from the trace.

Recommended Action  This is a debug message only. No action is required.

MODEM_NV Messages

The following are modem NVRAM error messages.

Error Message
%MODEM_NV-5-FLEXIBLE: [chars]

Explanation  This message type is created for all messages that have simple ASCII text and do not take any parameter. The message will provide details of the problem that has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

MPA68360 Messages

The following are Versatile Interface Processor (VIP) Multi-channel Port Adapter (MPA) error messages.

Error Message
%MPA68360-1-DWNLDCKSM: Failed for bay [dec], sent = [hex], received = [hex]

Explanation  The download of the internal firmware to the MPA68360 has failed to checksum correctly. This problem usually indicates a hardware failure of the MPA68360.

Recommended Action  Perform a power cycle. If the problem persists, there might be a problem with the MPA68360 hardware.

Error Message
%MPA68360-1-DWNLDFAIL: Microcode to port adaptor in bay [dec]

Explanation  The microcode download to the port adapter in the specified bay has failed.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MPA68360-1-INITFAIL: Slot [dec]: [chars]

Explanation  The PRI port adapter has failed to complete its hardware initialization.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPA68360-3-MBXREAD: [chars] has stale msg - mbx0:[hex], mbx1:[hex], mbx2:[hex]

Explanation  The MPA68360 has not responded to a message within a specified time.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPA68360-1-NOTCMPLT: Microcode download to bay [dec] failed

Explanation  The MPA68360 hardware has failed. It could not download its operational microcode.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPA68360-3-NOTMPA68360: Bay [dec] device ID seen as [hex], expected [hex]

Explanation  The MPA68360 hardware has failed. A non-MPA68360 device pointed at the software for the MPA68360 serial.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPA68360-1-NOTREADY: Bay [dec] for microcode download

Explanation  An error has occurred on the communication path between the driver and the MPA68360.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%MPLS_ATM_TRANS-3-CONSISTENCY: [chars]

Explanation  An action attempted by the ATM over MPLS implementation has encountered an unexpected condition.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

MPLS_ATM_TRANS Messages

The following are ATM Transport over MPLS error messages.

Error Message

%MPLS_ATM_TRANS-3-CONSISTENCY: [chars]

Explanation  An action attempted by the ATM over MPLS implementation has encountered an unexpected condition.

Recommended Action  Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
MPLS_TE Messages

The following are Label Switch Path (LSP) Tunnel error messages.

Error Message
%MPLS_TE-3-CONSISTENCY: [chars]: [chars] [chars] [chars]

**Explanation** An action attempted by the traffic engineering tunnel implementation has encountered an unexpected condition.

**Recommended Action** Copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPLS_TE-5-LSP: [chars]

**Explanation** An informational traffic engineering tunnel trap was generated for an LSP event.

**Recommended Action** Copy and save the message exactly as it appears on the console or in the system log for debugging analysis if the user is interested in understanding tunnel operation.

Error Message
%MPLS_TE-3-SIGNALLERINIT: Signaller unable to [chars] register RSVP [chars]

**Explanation** A message handler used by the signaler to receive events or requests from RSVP could not be installed or removed.

**Recommended Action** Copy and save the message exactly as it appears on the console or in the system log. If possible, restart the TSP tunnel signaling process by issuing the `no tag-switching tsp-tunnels` command, followed by the `tag-switching tsp-tunnels` command. If the message continues to occur even after restarting the signaling process several times, contact your Cisco technical support representative for assistance.

Error Message
%MPLS_TE-5-TUN: [chars]

**Explanation** An informational traffic engineering tunnel trap was generated for a tunnel event.

**Recommended Action** Copy and save the message exactly as it appears on the console or in the system log for debugging analysis if the user is interested in understanding tunnel operation.
**Error Message**

%MPLS_TE-3-TUNNELKILL: Tunnel removal attempt (by [chars]) failed for tunnel [chars]: [chars]

**Explanation** The state that is associated with a TSP tunnel could not be completely removed because of an internal failure.

**Recommended Action** Copy and save this message. If possible, remove all local TSP tunnel state by issuing the `no tag-switching tsp-tunnels` command, followed by the `tag-switching tsp-tunnels command`. (The TSP tunnels that were removed by the first command should be ressignaled shortly after the second command has been issued.) If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

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**MPLS_TE_PCALC Messages**

The following are Multiprotocol Label Switching (MPLS) TE path calculation facility error messages.

**Error Message**

%MPLS_TE_PCALC-2-DUP_IP_ADDRESS: [chars] [IP_address] [chars]

**Explanation** Two nodes have the same stable IP address.

**Recommended Action** Find the system that has the duplicate IP address and configure a different IP address for that system.

**Error Message**

%MPLS_TE_PCALC-2-DUP_RRR_ID: [chars] [IP_address] [chars]

**Explanation** Two nodes have the same stable router ID.

**Recommended Action** Find the system that has the duplicate router ID and configure a different ID for that router.

**Error Message**

%MPLS_TE_PCALC-3-INIT: pcalc_system_id_size == 0

**Explanation** An internal inconsistency has been detected when an attempt was made to initialize the MPLS TE path calculation system ID before the system ID size is known.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MPLS_TE_PCALC-3-LSA: [chars] [chars]

Explanation  An internal inconsistency has been detected when an attempt was made to receive an LSA for the MPLS TE topology database.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPLS_TE_PCALC-2-MEM: [chars] [dec]

Explanation  An attempt to allocate memory has failed.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MPLS_TE_PCALC-3-PATH: [chars]

Explanation  An internal inconsistency has been detected when an attempt was made to establish an MPLS TE tunnel using the MPLS TE path calculation subsystem.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

MPOA Messages

The following are Multiprotocol over ATM (MPOA) error messages.

Error Message
%MPOA-3-MPC_ERROR: [chars]

Explanation  A software error has occurred in the multiprotocol-over-ATM client (MPC) software.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Enter the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message

%MPOA-6-MPC_INFORMATION: [chars]

Explanation This message provides information about the status of an MPC client.

Recommended Action No action is required.

Error Message

%MPOA-4-MPC_WARNING: [chars]

Explanation This message is a nonfatal warning from the MPC software, probably the result of an incorrect configuration or operator command. Details about the warning are included in the message.

Recommended Action Determine if a configuration or operator error has caused this warning. If this error message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MPOA-3-MPOA_ERROR: [chars]

Explanation A software error has occurred in the multiprotocol-over-ATM subsystem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%MPOA-3-MPS_ERROR: [chars]

Explanation A software error has occurred in the MPS software.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%MPOA-6-MPS_INFORMATION: [chars]

Explanation This message provides information about the status of an MPS.

Recommended Action No action is required.
Error Message

%MPOA-4-MPS_WARNING: [chars]

Explanation  This is a nonfatal warning from the MPS software, probably the result of an incorrect configuration or operator command. Another possible but less likely cause could be an internal software error.

Recommended Action  Determine if a configuration or operator error has caused this warning. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MPOA-5-UPDOWN: [chars]

Explanation  A multiprotocol-over-ATM entity has been brought up or down.

Recommended Action  This is a status message only. No action is required.

MROUTE Messages

The following are multicast route error messages.

Error Message

%MROUTE-4-RADIXDELETE: Error trying to delete multicast route entry [IP_address]/[dec] for [IP_address] (expected [hex], got [hex])

Explanation  An error in the multicast routing table has occurred. A route could not be deleted from the routing table.

Recommended Action  Enter the clear ip mroute command. Determine whether the router is low on memory. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%MROUTE-2-RADIXINIT: Error initializing IP multicast radix for [IP_address]

Explanation  Insufficient memory is available to initialize the IP multicast routing table.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Enter the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.
Error Message
%MROUTE-4-RADIXINSERT: Error trying to add multicast route entry [IP_address]/[dec] for [IP_address] (expected [hex], got [hex])

Explanation An error in the multicast routing table has occurred. A route could not be inserted into the routing table.

Recommended Action Enter the clear ip mroute command. Determine whether the router is low on memory. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MROUTE-3-ROUTECOUNT_ERR: Running multicast route count [int]

Explanation The running count of multicast routes is different from the count in the multicast routing table.

Recommended Action An error in maintaining the multicast route count has occurred. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MROUTE-3-ROUTECOUNT_ZERO: Multicast route count reached zero

Explanation The running count of multicast routes has reached zero when it should be nonzero.

Recommended Action An error in maintaining the multicast route count has occurred. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MROUTE-4-ROUTELIMIT: [int] routes exceeded multicast route-limit of [dec]

Explanation The number of multicast routes exceeds the configured maximum number. New routes cannot be added unless the configuration is changed.

Recommended Action If multicast traffic is a priority among the traffic carried by this router, use the ip multicast route-limit command to increase the number of multicast routes. If multicast traffic is not a priority, no action is required.

Error Message
%MROUTE-4-RPF_LOOKUP_LOOP: RPF route lookup loop for [IP_address], route [IP_address]/[dec]

Explanation A possible routing loop has been caused by routers that are sending RPF datagrams to different tables.

Recommended Action Check the routing tables used for RPF and resolve any routing loops.
MSDP Messages

The following are Multicast Source Discovery Protocol (MSDP) route error messages.

Error Message
%MSDP-5-PEER_UPDOWN: Session to peer [IP_address] going [chars]

Explanation The session to the peer is going up or down.

Recommended Action Determine whether the router is low on memory.

Error Message
%MSDP-4-PKT_TOO_BIG: Message size violation on [int]-byte packet from [IP_address], discarded

Explanation A message larger than the maximum MSDP message size has been received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

MSPI Messages

The following are Mail Service Provider error messages.

Error Message
%MSPI-1-MSPI_BAD_CONFIG: MSPI-bad configuration, [chars]

Explanation A configuration error has been detected.

Recommended Action Add or fix the dial peer configuration.

Error Message
%MSPI-2-MSPI_BAD_CONTEXT: MSPI-bad context pointer, [chars]

Explanation A bad context pointer was passed.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MSPI-4-MSPI_BAD_MESSAGE: MSPI- Bad message received

Explanation An unexpected message has been received.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MSPI-2-MSPI_INTERNAL_ERROR: MSPI-Internal software error, cid=[dec], [chars]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MSPI-4-MSPI_NO_SMTP: MSPI- Can’t connect to the SMTP server, cid=[dec], [chars]

Explanation No connection was created to the specified SMTP server.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MSPI-4-MSPI_NO_SMTP_SEND: MSPI- Could not send data to the SMTP server, cid=[dec], [chars]

Explanation A connection was made to the SMTP server, but no data could be sent to the SMTP server.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MSPI-1-NOMEMORY: Unit [dec], no memory for [chars]

Explanation The requested operation could not be accomplished because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message
%MSP1-4-SMTP_NOT_CONNECTED: SMTP- failed [chars], [dec]

Explanation  An attempt to connect to a remote mail server was not successful. This is unexpected behavior.

Recommended Action  No action is required.

Error Message
%MSP1-6-SMTP_OPEN: SMTP- opening [chars], [dec]

Explanation  A connection is being attempted.

Recommended Action  No action is required.

MUESLIX Messages

The following are Mx serial application-specific integrated circuit (ASIC) error messages.

Error Message
%MUESLIX-4-DEF_SUBRATE: [chars] [chars]

Explanation  A user has changed the DSU bandwidth by using DS3 remote management commands. This action did not change the user-configured DSU bandwidth.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MUESLIX-3-DISCOVER: Mx serial (bay [dec]): Interface found: [dec]

Explanation  The Mx serial hardware has failed. Some interfaces on the board failed to come up.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MUESLIX-1-DWNLDFL: Mx serial (bay [dec]): PA down load failed

Explanation  The Mx serial hardware has failed and could not download its operational microcode.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**Error Message**

%MUESLIX-1-FAILURE_CAUSE: [chars] [chars] [chars]: [hex], [hex]

**Explanation**  An Mx STOPFAIL has occurred because of the reason displayed. The driver could not disable 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` command to gather data that may provide information to determine the nature of the error. If you cannot determine what condition caused the “STOPFAIL/STARTFAIL” error message text, call your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**


**Explanation**  The Mx serial firmware has failed.

**Recommended Action**  If the message only occurred once, it may be safely ignored. If the message recurs, this indicates a software failure. Consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes.

**Error Message**

%MUESLIX-1-INITFAIL: Mx serial (bay [dec]), Init Failed at [chars]

**Explanation**  The Mx serial port adapter has failed to complete its hardware initialization.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%MUESLIX-3-NOTMUESLIX: Mx serial (bay [dec]): Device reported [hex]

**Explanation**  The Mx serial hardware has failed. A non-Mx serial device pointed at the Mx serial software.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%MUESLIX-3-OWNERR: [dec] packet buffer, pak=[hex]

Explanation  A software or hardware error has occurred. The Mx serial driver has detected that the transmit ring is in an inconsistent and unrecoverable state.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MUESLIX-1-STARTFAIL: Mx serial, [chars] Start Failed at [chars]

Explanation  The Mx serial port adapter has failed to respond to a request to disable an interface.

Recommended Action  This is often caused by software failure. Consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If this does not solve the problem, replace the affected hardware. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MUESLIX-1-STOPFAIL: Mx serial, [chars] Stop Failed at [chars]

Explanation  The Mx serial port adapter has failed to respond to a request to disable an interface.

Recommended Action  This condition is often caused by software failure. Consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If this does not solve the problem, replace the affected hardware. Copy the error message exactly as it appears on the console or in the system log. Enter the `debug serial interface` command and gather the messages that appear on the logs to determine the nature of the error. If you cannot determine what condition caused the “STOPFAIL” error message text, call your Cisco technical support representative and provide the representative with the gathered information.

MXT_FREEDM Messages

The following are 8PRI/4T board error messages.

Error Message
%MXT_FREEDM-1-DWNLDFL: 8PRI/4T board slot [dec]: Firmware download failed.

Explanation  An attempt to download firmware into an 8PRI/4T board has failed.

Recommended Action  Power-cycle the router. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
NBAR Messages

Error Message
%MXT_FREEDM-1-HALT: 8PRI/4T board slot [dec]: Firmware sent a HALT interrupt.

Explanation A double bus fault has occurred in the 8PRI/4T board firmware.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MXT_FREEDM-1-INVALID_SHMEM: Invalid Shared Memory size detected

Explanation The current shared memory present in the box is not supported.

Recommended Action Replace the shared memory with the supported configuration. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%MXT_FREEDM-1-PCI_DBUS_BR_FAIL: PCI-DBUS Bridge in slot [dec] Failure: [chars]

Explanation An internal error has occurred in the 8PRI/4T board.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

NBAR Messages

The following are network-based application recognition (NBAR) error messages.

Error Message
%NBAR-2-NOMEMORY: No memory available for [chars]

Explanation An attempt at memory allocation has failed.

Recommended Action Perform the following actions to remedy the problem: Disable some features. Apply filtering to decrease the size of system data structures, the routing table, for example. In general, reduce other system activities to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.
Error Message

%NBAR-2-NOSTATEMEM: Memory for maintaining state used up

Explanation  NBAR uses memory to maintain state information about stateful flows. There is a maximum limit on how much memory NBAR can use for this purpose and the maximum limit has been reached.

Recommended Action  Increase the memory on the platform.

Error Message

%NBAR-2-RMINVALIDCONFIG: NBAR resource manager : too many buckets ([dec])

Explanation  NBAR was configured so that the internal data structures needed to maintain stateful protocol information were too large.

Recommended Action  Configure the router by entering the ip nbar resources command with a smaller maximum idle (max-idle) time.

Error Message

%NBAR-2-RMNORESOURCE: NBAR resources exhausted

Explanation  To save stateful information on protocols, NBAR must use dynamic resources. These resources have been exhausted.

Recommended Action  Configure the router by entering the ip nbar resources command to allocate a larger initial pool of resources. The default number of initial resources is 10000. Also, try configuring a shorter maximum idle (max-idle) time.

NET_SERV Messages

The following are Network Services error messages.

Error Message

%NET_SERV-4-UNEXPECTED: Unexpected error: [chars]

Explanation  An unexpected error has occurred while a services timer operation was performed.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%NET_SERV-4-WARNING: Unexpected condition: [chars]

Explanation  An unexpected condition has been detected while a services timer operation was performed.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

NETWORK_CLOCK_SYNCHRONIZATION Messages

The following are network clock synchronization error messages.

Error Message

%NETWORK_CLOCK_SYNCHRONIZATION-4-NETCLK_CHANGE:
Network clock source transitioned from
Priority [dec] [chars] [chars] to Priority [dec] [chars] [chars]\n
Explanation  A change in the clock source has occurred.

Recommended Action  No action is required.

Error Message

%NETWORK_CLOCK_SYNCHRONIZATION-4-NETCLK_INIT:
Network clock source initialised to local oscillator.\n
Explanation  The network clock used will be internal.

Recommended Action  No action is required.

Error Message

%NETWORK_CLOCK_SYNCHRONIZATION-4-NETCLK_PLL_LOST_LOCK:
Network clock [chars] PLL lost lock - clock source failed.\n
Explanation  The clock source has failed.

Recommended Action  If an alternate clock source is available, it will be used.
NHRP Messages

The following are Next Hop Resolution Protocol (NHRP) error messages.

Error Message
%NHRP-3-PAKERROR: Receive [chars] for our [chars], code: [chars]([dec]), offset: [dec], data: [chars]

Explanation    The system has received an error indication packet indicating that the system sent a bad packet prior to this message.

Recommended Action    Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NHRP-3-PAKREPLY: Receive [chars] packet with error - [chars]([dec])

Explanation    An NHS has rejected or failed to serve the NHRP client request packet.

Recommended Action    Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

NIM Messages

The following are network interface module (NIM) error messages.

Error Message

Explanation    The indicated NIM is not supported because it is not the correct revision. Certain platforms (Cisco 4500 or Cisco 4700, for example) require some NIMs to be of a minimum revision level.

Recommended Action    Upgrade the NIM to the proper level.

Error Message
%NIM-2-BADSLOT: Illegal reference to non-existent slot [dec]

Explanation    An internal software error has occurred.

Recommended Action    Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%NIM-2-BADSUBUNIT: Illegal reference to non-existent subunit [dec] in slot [dec]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NIM-2-DEADICHAINQ: Attempted to manipulate uninitialized ichainQ in [chars]

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NIM-2-LOSTICHAINQ: Couldn’t find idb [hex] in ichainQ in [chars]

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NIM-2-NOCARRIER: No Carrier Card in slot [dec]

Explanation The system must contain 3 carrier cards.

Recommended Action Power down the system and add the carrier card.

Error Message
%NIM-2-NOHWADDRESS: All hardware addresses have been allocated – maximum of [dec]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
NP Messages

Error Message
%NIM-2-UNSUPNIM: Unsupported [chars] NIM in slot [dec]

Explanation The indicated NIM is not supported on this platform.

Recommended Action Remove the NIM.

NP Messages

The following are NextPort (NP) error messages

Error Message
%NP-3-CTRL_POOL_CREATION_FAIL: Control buffer pool could not be created

Explanation The NextPort driver could not create the control buffer pool required for Tx and Rx of NextPort control messages

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP-3-MODNOTEEXIST: Slot [dec], DFC [dec], Module [dec] not exist.

Explanation No virtual console can be opened for this module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP-3-NAKRSP: NAK Response Received - command [hex], result code [hex], msg id [hex], session id [hex], msg tag [hex]

Explanation The NextPort module has sent a NAK response.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
**NP_BS Messages**

The following are NextPort BootStrap and Crash Monitor error messages.

**Error Message**

%NP-3-NOTMSGID: Message Id [hex] not supported.

**Explanation**  The NextPort module does not support this control message ID.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP-3-QUEUEFULL: [chars] queue is full for Slot [dec], DFC [dec], Module [dec].

**Explanation**  The Tx queue is full for this module.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP-3-RESET_DFC: DFC Reset-Cleared Failed - DFC [dec]

**Explanation**  The DFC could not be reset and cleared.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**NP_BS Messages**

The following are NextPort BootStrap and Crash Monitor error messages.

**Error Message**

%NP_BS-3-CRC_FAIL: NextPort Module [dec]/[dec]/[dec] failed firmware image validation

**Explanation**  The NextPort BootStrap and Crash Monitor has detected a failed NextPort firmware CRC validation.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP_BS-3-INITSYS: [chars]

**Explanation**  The NextPort BootStrap and Crash Monitor has failed to initialize.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%NP_BS-3-INVALID_FW: Invalid NextPort Firmware for [dec]/[dec]/[dec]

Explanation The NextPort BootStrap and Crash Monitor has detected invalid NextPort firmware.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_BS-3-INVALID_IDT: NextPort Module [dec]/[dec]/[dec] detected an invalid IDT

Explanation NextPort BootStrap and Crash Monitor has detected an invalid IDT.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_BS-3-INVALID_MC_POST: NextPort Module [dec]/[dec]/[dec] detected a module POST failure [hex]

Explanation The NextPort BootStrap and Crash Monitor has detected a module POST failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_BS-3-MEM_TEST_FAIL: NextPort Module [dec]/[dec]/[dec] memory test failed

Explanation The NextPort BootStrap and Crash Monitor has detected a failed NextPort module memory test.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_BS-3-MODULE_ACCESS_ERR: Failed to access NextPort module [dec]/[dec]/[dec] crash info

Explanation The NextPort BootStrap and Crash Monitor has failed to access crash information.

Recommended Action No action is required.
Error Message
%NP_BS-6-MODULE_STARTED: NextPort module [dec]/[dec]/[dec] Started - [dec].[dec].[dec].[dec]

Explanation The NextPort BootStrap and Crash Monitor has successfully started a module.

Recommended Action No action is required.

Error Message
%NP_BS-6-MODULE_STOPPED: NextPort module [dec]/[dec]/[dec] Stopped

Explanation The NextPort BootStrap and Crash Monitor has stopped a module.

Recommended Action No action is required.

Error Message
%NP_BS-3-NO_KEEPALIVE: NextPort module [dec]/[dec]/[dec] failed to respond to keepalive message

Explanation The NextPort BootStrap and Crash Monitor has detected a module that has failed to respond to a keepalive message.

Recommended Action No action is required.

Error Message
%NP_BS-3-NOMEM: [chars]

Explanation The NextPort BootStrap and Crash Monitor could not allocate memory for the internal module database.

Recommended Action No action is required.

Error Message
%NP_BS-3-NO_SUCH_MODULE: [chars] nonexisting NP module [dec]/[dec]/[dec]

Explanation The NextPort BootStrap and Crash Monitor has detected an internal database error.

Recommended Action No action is required.

Error Message
%NP_BS-3-NULL_FW_PTR: NULL NextPort Firmware pointer for [dec]/[dec]/[dec]

Explanation The NextPort BootStrap and Crash Monitor has detected a null NextPort firmware pointer.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
NP_EST Messages

Error Message

%NP_BS-3-Q_FAILURE: NextPort Module [dec]/[dec]/[dec] control queue creation failure

Explanation The NextPort BootStrap and Crash Monitor has detected a control queue creation failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_BS-2-THREE_NP108_NOT_PRESENT: DFC in slot [dec] does not have three NP108s!

Explanation The DFC does not have three NP108s. This is an illegal configuration.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

NP_EST Messages

The following are NextPort error messages.

Error Message

%NP_EST-6-CTRL_NAK_RSP: [chars]

Explanation An EST Control NAK Notification has been sent to the Cisco IOS software to convey additional debug data regarding a NAK that occurred on the Control Queue.

Recommended Action No action is required.

Error Message

%NP_EST-6-DIAG_POST_NTF: [chars]

Explanation EST Diagnostic and POST Notification has been sent to the Cisco IOS software to convey additional information about the power-on self-test or a diagnostic test result.

Recommended Action No action is required.

Error Message

%NP_EST-3-MSG_ERR: [chars]

Explanation EST has detected an internal error.

Recommended Action No action is required.
NP_MD Messages

The following are NextPort modem driver error messages.

Error Message
%NP_MD-3-BADENCAP: Unknown encapsulation [dec] on interface [chars]

Explanation  A software error, which resulted in an unknown encapsulation type on the specified interface, has occurred.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_MD-3-CONTIGUOUS: Contiguous packet sent for transmit

Explanation  A software error, which resulted in an unexpected packet being set up for transmission, has occurred, and the packet was dropped by the NextPort Modem Driver.

Recommended Action  If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_MD-3-DATA_CHAN_RX_OVERFLOW: Too many buffers ([dec]) rxd for port [dec]

Explanation  The NextPort module has sent more buffers than is allowed for this channel.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_MD-3-DATA_QUEUE_SEND_FAIL: Could not send to data queue for port [dec], inflight tx buffers [dec]

Explanation  The NextPort Modem Driver could not send a buffer to interface driver.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%NP_MD-3-MODEM_SLOT_CREATION_FAIL: Modem slot structure for slot [dec] could not be created

Explanation The NextPort modem driver could not create the modem slot structure that is required for the modem services of this card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-6-MODULE_DOWN: NextPort module [dec]/[dec]/[dec] down

Explanation The NextPort Modem Driver has detected that a module is going down.

Recommended Action No action is required.

Error Message

%NP_MD-6-MODULE_UP: NextPort module [dec]/[dec]/[dec] up

Explanation The NextPort Modem Driver has detected that a module is coming up.

Recommended Action No action is required.

Error Message

%NP_MD-0-NOHWIDBS: Cannot allocate interface Async[dec]/[dec]

Explanation The allocation of interface structure has failed. Either there is not enough memory or the maximum number of interfaces has been exceeded.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-0-NOMEMORY: Cannot allocate [dec] bytes of memory for [chars]

Explanation The system has failed to allocate an important data structure because of a lack of memory.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the show mem command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show mem command output, contact your Cisco technical support representative and provide the representative with the gathered information.
**Error Message**

%NP_MD-0-NO_MODULE_ELEMENTS: Cannot bring up the module [dec]/[dec]/[dec] due to lack of module elements

**Explanation**  The NextPort modem driver cannot allocate an important data structure, called a module element, which is necessary to bring up the module. This condition should not normally happen and possibly indicates an error condition.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP_MD-0-NOPAKS: TTY [chars]: Cannot allocate [chars]

**Explanation**  An important buffer cannot be allocated because of the packet memory shortage.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP_MD-3-NO_SEED_BUFFER: No buffer to seed data queue for module [dec]/[dec]/[dec]

**Explanation**  The NextPort Modem Driver could not obtain a buffer to seed the module data queue because of a packet memory shortage.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP_MD-0-NO_SUCH_LINE: Attempt to [chars] a data channel on the unexisting line [dec]/[dec]

**Explanation**  An internal software error has occurred that may have corrupted the modem database.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%NP_MD-0-NO_SUCH_MODEM: Attempt to [chars] a data channel on the unexisting modem [dec]/[dec]

**Explanation**  An internal software error has occurred that may have corrupted the modem database.

**Recommended Action**  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%NP_MD-0-0_NO_SUCH_SLOT: Slot [dec] is not present in the system

Explanation An internal software error has occurred that may have corrupted the slot database.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-0-0_NOTTTYS: Cannot allocate TTY[dec] ([dec]/[dec])

Explanation The allocation of the tty structure has failed. Either there is not enough memory or the tty number is too big.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-3-0_NOTXPAK: Static transmit paktype unavailable

Explanation A software structure was found in an unexpected state during runtime for the specified modem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-3-0_RETURN_DATA_BUFF_FAIL: Failed to return data buffer for port [dec]

Explanation A call to the NextPort interface driver to replenish the data buffer for the specified channel has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-3-0_RTSLOW: TTY [chars]: RTS is incorrectly deasserted; reasserting now

Explanation A software error has occurred that resulted in an invalid state for the RTS modem signal.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%NP_MD-3-SEED_BUFFER_FAIL: Could not seed data queue for module [dec]/[dec]/[dec]

Explanation The NextPort modem driver could not seed the data queue with buffers.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_MD-0-SLOT_ALREADY_PRESENT: Slot [dec] is already present in the system

Explanation An internal software error has occurred that may have resulted in a corrupted slot database.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_MD-6-SLOT_INSERTED: Slot [dec] ([dec] ports max) inserted

Explanation The NextPort modem driver has detected a slot that is inserted in the system. All slots that are present in the system are treated as being inserted during startup.

Recommended Action No action is required.

Error Message
%NP_MD-6-SLOT_REMOVED: Slot [dec] removed

Explanation A slot has been removed from the system.

Recommended Action No action is required.

Error Message
%NP_MD-3-TX_INBAND_MSG_FAILURE: Failed to send inband message for TTY [chars]

Explanation A call to send an in-band message on the data queue has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%NP_MD-3-TXQUEUE_EMPTY: TTY [chars]: No buffers available to set up the transmit queue

Explanation  A software error has occurred that resulted in an unexpected exhaustion of the pool of data buffers that are used by the modem drivers.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-1-UNKNOWN_ESCAPE_CHAR: TTY [chars]: Attempt to set an unknown special character (type [dec]) to [hex]

Explanation  The NextPort modem driver has received a request for hardware detection of an unknown type of special character because of an internal software error.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MD-3-UNKNOWN_INBAND: TTY [chars]: Unknown NextPort in-band message (msg_id [hex]) received

Explanation  The NextPort modem driver has received an unknown message from a NextPort module. This can happen if new firmware is used with an obsolete version of Cisco IOS software.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

NP_MM Messages

The following are NextPort module manager error messages.

Error Message

%NP_MM-3-COUNTRY_CODE_FAILURE: Module country code failure [dec]/[dec]/[dec]

Explanation  The NextPort module manager has failed to set the country code.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%NP_MM-3-DATA_Q_FAILED: Failed to create Data Q for NP module [dec]/[dec]/[dec]

Explanation  The NextPort module manager has failed to create a data queue.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-INVALID_ACK_RSP: Unsupported module ACK response [dec]/[dec]/[dec]: msg len = [dec], session ID = [dec], msg tag = [dec], msg ID = [dec], cmd msg ID = [dec], result code = [dec]

Explanation  The NextPort module manager has received an unsupported message response.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-INVALID_NPADDRESS: Invalid NP_ADDRESS [dec]/[dec]/[dec]/[dec] - [chars]

Explanation  The NextPort module manager has detected an invalid NextPort address (NP_ADDRESS).

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-INVALID_RSP: Unsupported module response [dec]/[dec]/[dec]: msg len = [dec], session ID = [dec] msg tag = [dec], msg ID = [dec]

Explanation  The NextPort module manager has received an unsupported message response.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-INVALID_STATE: Invalid NP module state([chars]) [dec]/[dec]/[dec] - [chars]

Explanation  The NextPort module manager has detected an invalid NP module state.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message

%NP_MM-3-MEM_ERR: Failed to allocate control message buffer for NP module 
[dec]/[dec]/[dec] - [chars]

Explanation  The NextPort module manager has failed to allocate a control message buffer.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-MODULE_CRASH: Module Crash detected [dec]/[dec]/[dec]: state = [dec],
cause code = [dec]

Explanation  The NextPort module manager has detected a crashed module.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-RESTART_EXCEEDED: Module exceeded restart threshold [dec]/[dec]/[dec]

Explanation  The NextPort module manager has detected a module that has exceeded the restart threshold.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%NP_MM-3-RUNTIME_ERR: Module Run Time Error [dec]/[dec]/[dec]: recovery = [hex],
error = [hex]

Explanation  The NextPort module manager has received a module run-time error.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%NP_MGM-3-SEND_FAILED: Failed to send [chars] message to NP module [dec]/[dec]/[dec]

Explanation  The NextPort module manager has failed to send a control message.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

NP_SPE_DS Messages

The following are NextPort Dial Shelf Service Processing Element (SPE) Manager error messages.

Error Message
%NP_SPE_DS-3-NOMEMORY: Cannot allocate [dec] bytes of memory for [chars]

Explanation  The system has failed to allocate an important data structure because of a lack of memory.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Enter the show mem command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show mem command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%NP_SPE_DS-3-SPE_DNLD_FAIL: SPE [dec]/[dec]/[dec]/[dec]: [chars]

Explanation  The SPE download code has failed, and the download has been aborted.

Recommended Action  No action is required.

Error Message
%NP_SPE_DS-3-SPE_DNLD_INIT_FAIL: [chars]

Explanation  The SPE download code has failed to initialize, and the SPE download will fail.

Recommended Action  No action is required.
NP_SSM Messages

The following are NextPort Session and Service Manager error messages.

Error Message
%NP_SSM-3-INVALID_HANDLE: SSM([dec]/[dec]): Invalid Session/Service Instance Handle

Explanation  Session and Service Manager Received has failed to obtain its instance handle for the slot and port.

Recommended Action  No action is required.

Error Message
%NP_SSM-3-INVALID_MSG: SSM: Invalid Session/Service Message, ID = [hex]

Explanation  The Session and Service Manager has received an invalid message from the NextPort Message Dispatcher.

Recommended Action  No action is required.

Error Message
%NP_SSM-0-NOMEMORY: Cannot allocate [dec] bytes of memory for [chars]

Explanation  The system failed to allocate an important data structure because of a lack of memory.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log. Enter the `show mem` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show mem` command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%NP_SSM-6-NULL_SSM_INFO: NULL SSM Info Handle for slot [dec], port [dec]

Explanation  The NextPort Session and Service Manager has failed to obtain a control information handle for the specified slot and port numbers.

Recommended Action  Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.
Error Message
%NP_SSM-6-NULL_VDEV_COMMON: NULL Vdev Common Handle for slot [dec], port [dec]

**Explanation** The NextPort Session and Service Manager has failed to obtain a voice device information handle for the specified slot and port numbers.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NP_SSM-3-RUNTIME_ERROR: SSM([dec]/[dec]): Session Runtime Error Code = [dec], Recovery Action = [dec]

**Explanation** The NextPort Session and Service Manager has received a run-time error for the slot and port.

**Recommended Action** No action is required.

---

**NRP Messages**

The following are Network Routing Processor (NRP) error messages.

Error Message
%NRP-3-IPC: [chars] [chars]

**Explanation** An IPC error has occurred. The details of what was attempted and what went wrong will be printed.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Copy down the configuration of the router along with any other relevant information and contact your Cisco technical support representative for assistance.

---

**NSE Messages**

The following are Network services engine (NSE) error messages.

Error Message
%NSE-3-QUEUEHUNG: QoS queue hung on interface [chars].

**Explanation** The system was unable to cleanly close down the QoS support in PXF for the interface. Problems may arise if the QoS support in PXF for the interface is restarted without first reloading the PXF microcode.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Enter the `show tech-support` command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the `show tech-support` command output, contact your Cisco technical support representative and provide the representative with the gathered information.
NSP Messages

The following are Network Switch Processor (NSP) error messages.

Error Message
%NSP-3-BADSLOT: Invalid slots[][]: [hex]

Explanation An internal error, indicating an invalid slot type pointer, has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the show tech-support command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the show tech-support command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%NSP-3-BOGUS_PARAMETER: Bogus parameter passed: [chars] [dec]

Explanation An internal error, indicating an invalid parameter passed to a routine, has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message
%NSP-2-NOMEMORY: Unit [dec], no memory for [chars]

Explanation An operation could not be accomplished because of a low memory condition. The current system configuration, network environment, or possibly a software error might have exhausted or fragmented the system memory.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message
%NSP-4-SONET_ALARM: [chars]: [chars] [chars]

Explanation A SONET line warning condition has been detected.

Recommended Action No action is required.
Glossary of Acronyms
The following glossary of acronyms expands acronyms and initialiasms that are used in *Cisco IOS System Error Messages, Release 12.2*.

### A

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>authentication, authorization, and accounting</td>
</tr>
<tr>
<td>AAL5</td>
<td>ATM adaptation layer 5</td>
</tr>
<tr>
<td>ABM</td>
<td>asynchronous balanced mode</td>
</tr>
<tr>
<td>ABR</td>
<td>Area Border Router</td>
</tr>
<tr>
<td>AC</td>
<td>alternating current</td>
</tr>
<tr>
<td>ACIP</td>
<td>ATM Cable Interface Processor</td>
</tr>
<tr>
<td>ACL</td>
<td>Access Control List</td>
</tr>
<tr>
<td>ACO</td>
<td>alarm cutoff</td>
</tr>
<tr>
<td>ACTLU</td>
<td>activate logical unit</td>
</tr>
<tr>
<td>ACTPU</td>
<td>activate physical unit</td>
</tr>
<tr>
<td>ADSL</td>
<td>asymmetric digital subscriber line</td>
</tr>
<tr>
<td>AH</td>
<td>Authentication Header</td>
</tr>
<tr>
<td>AIP</td>
<td>ATM Interface Processor</td>
</tr>
<tr>
<td>ALC</td>
<td>ATM Line Card</td>
</tr>
<tr>
<td>ALPS</td>
<td>Airline Product Set</td>
</tr>
<tr>
<td>AMD</td>
<td>Advanced Micro Devices</td>
</tr>
<tr>
<td>ANR</td>
<td>Automatic Network Routing</td>
</tr>
<tr>
<td>ANS1</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>AP</td>
<td>authentication proxy</td>
</tr>
<tr>
<td>API</td>
<td>application programming interface</td>
</tr>
<tr>
<td>APING</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>APN</td>
<td>access point name</td>
</tr>
<tr>
<td>APPC</td>
<td>Advanced Program-to-Program Communications</td>
</tr>
<tr>
<td>APPN</td>
<td>Advanced Peer-to-Peer Networking</td>
</tr>
<tr>
<td>APS</td>
<td>automatic protection switching</td>
</tr>
<tr>
<td>ARAP</td>
<td>AppleTalk Remote Access Protocol</td>
</tr>
<tr>
<td>ARB</td>
<td>Adaptive Rate-Based</td>
</tr>
<tr>
<td>ARP</td>
<td>Address Resolution Protocol</td>
</tr>
<tr>
<td>ARQ</td>
<td>automatic repeat request</td>
</tr>
<tr>
<td>AS</td>
<td>autonomous system</td>
</tr>
<tr>
<td>ASCU</td>
<td>agent-set control unit</td>
</tr>
<tr>
<td>ASIC</td>
<td>application-specific integrated circuit</td>
</tr>
<tr>
<td>ASP</td>
<td>ATM switch processor</td>
</tr>
<tr>
<td>ATF</td>
<td>area to free</td>
</tr>
<tr>
<td>ATM</td>
<td>Asynchronous Transfer Mode</td>
</tr>
<tr>
<td>AURP</td>
<td>AppleTalk Update-Based Routing Protocol</td>
</tr>
<tr>
<td>AutoRP</td>
<td>Auto-Rendezvous Point</td>
</tr>
<tr>
<td>AVL</td>
<td>approved vendor list</td>
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</tbody>
</table>

**B**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAP</td>
<td>Bandwidth Allocation Protocol</td>
</tr>
<tr>
<td>BB</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>BBI</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>BERT</td>
<td>bit error rate tester</td>
</tr>
<tr>
<td>BGP</td>
<td>Border Gateway Protocol</td>
</tr>
<tr>
<td>BIC</td>
<td>backplane interface card</td>
</tr>
<tr>
<td>BIDI</td>
<td>bidirectional bus</td>
</tr>
<tr>
<td>BIND</td>
<td>Berkeley Internet Name Domain</td>
</tr>
<tr>
<td>BIS</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>BLLI</td>
<td>Broadband Low Layer Information</td>
</tr>
<tr>
<td>BMA</td>
<td>Buffer Management ASIC</td>
</tr>
<tr>
<td>BOOTP</td>
<td>Bootstrap Protocol</td>
</tr>
<tr>
<td>BPDU</td>
<td>bridge protocol data unit</td>
</tr>
<tr>
<td>BPI</td>
<td>baseline privacy interface</td>
</tr>
<tr>
<td>BRI</td>
<td>Basic Rate Interface</td>
</tr>
<tr>
<td>BRF</td>
<td>Bridge Relay Function</td>
</tr>
<tr>
<td>BSC</td>
<td>Binary Synchronous Communications</td>
</tr>
<tr>
<td>BSS</td>
<td>Business Support System</td>
</tr>
<tr>
<td>BSTUN</td>
<td>Block Serial Tunnel</td>
</tr>
<tr>
<td>BTU</td>
<td><em>Undefined</em></td>
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<tr>
<td>BUS</td>
<td>broadcast-and-unknown server</td>
</tr>
</tbody>
</table>

**C**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>certification authority</td>
</tr>
<tr>
<td>CAIM</td>
<td>Compression Advanced Interface Module</td>
</tr>
<tr>
<td>CAM</td>
<td>content-addressable memory</td>
</tr>
<tr>
<td>CAS</td>
<td>channel-associated signaling</td>
</tr>
<tr>
<td>CASA</td>
<td>Cisco Appliance and Services Architecture</td>
</tr>
<tr>
<td>CBAC</td>
<td>Context-Based Access Control</td>
</tr>
<tr>
<td>CBI</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>CBUS</td>
<td>ciscoBus</td>
</tr>
<tr>
<td>CCAPI</td>
<td>call control API</td>
</tr>
<tr>
<td>CCB</td>
<td>call control block</td>
</tr>
<tr>
<td>CCO</td>
<td>Cisco Connection Online (obsolete term, replaced by Cisco.com)</td>
</tr>
<tr>
<td>CCW</td>
<td>channel command word</td>
</tr>
<tr>
<td>CDI</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>CDM</td>
<td>cable data modem</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>CDP</td>
<td>Cisco Discovery Protocol</td>
</tr>
<tr>
<td>CE</td>
<td>certificate enrollment</td>
</tr>
<tr>
<td>CEB</td>
<td>Undefined</td>
</tr>
<tr>
<td>CEBI</td>
<td>Undefined</td>
</tr>
<tr>
<td>CEF</td>
<td>Cisco Express Forwarding</td>
</tr>
<tr>
<td>CES</td>
<td>circuit emulation service</td>
</tr>
<tr>
<td>CET</td>
<td>Cisco Encryption Technology</td>
</tr>
<tr>
<td>CGMP</td>
<td>Cisco Group Management Protocol</td>
</tr>
<tr>
<td>CGX</td>
<td>CryptoGraphics eXtensions</td>
</tr>
<tr>
<td>CHAP</td>
<td>Challenge Handshake Authentication Protocol</td>
</tr>
<tr>
<td>CI</td>
<td>chassis interface</td>
</tr>
<tr>
<td>CICS</td>
<td>Customer Information Control System</td>
</tr>
<tr>
<td>CIP</td>
<td>Channel Interface Processor</td>
</tr>
<tr>
<td>CIP2</td>
<td>enhanced Channel Interface Processor</td>
</tr>
<tr>
<td>CIR</td>
<td>committed information rate</td>
</tr>
<tr>
<td>CLAW</td>
<td>Common Link Access for Workstations</td>
</tr>
<tr>
<td>CLI</td>
<td>command-line interface</td>
</tr>
<tr>
<td>CLNS</td>
<td>Connectionless Network Service</td>
</tr>
<tr>
<td>CLS</td>
<td>Cisco link services</td>
</tr>
<tr>
<td>CLSI</td>
<td>Cisco link services interface</td>
</tr>
<tr>
<td>CMCC</td>
<td>Cisco Mainframe Channel Connection</td>
</tr>
<tr>
<td>CMNS</td>
<td>Connection Mode Network Service</td>
</tr>
<tr>
<td>CMPC</td>
<td>Cisco Multipath Channel</td>
</tr>
<tr>
<td>CMTS</td>
<td>cable modem termination system</td>
</tr>
<tr>
<td>CNR</td>
<td>Cisco Network Registrar</td>
</tr>
<tr>
<td>CNOS</td>
<td>change number of sessions</td>
</tr>
<tr>
<td>CNS</td>
<td>Cisco Networking Services</td>
</tr>
<tr>
<td>codec</td>
<td>coder-decoder</td>
</tr>
<tr>
<td>CoS</td>
<td>class of service</td>
</tr>
</tbody>
</table>
COT  continuity testing
CP   control point
CPA  Channel Port Adapter
CPI  common part indicator
CPI-C common programming interface for communications
CRC  cyclic redundancy check
CRF  Concentrator Relay Function
CRL  certificate revocation list
CRV  call reference value
CSA  compression service adapter
CSAR Cisco Cell Segmentation and Reassembly
CSC  clock switch card
CSI  called subscriber identification
CSM  call switching mode
CSM  call switching module
CSNA Cisco SNA
CSU  channel service unit
CTRC Cisco Transaction Connection
CTS  Clear To Send
CV   Undefined
CWAN Constellation WAN

D
DC   direct-connect
DC   direct current
DCD  data carrier detect
DCE  data communications equipment
DDR  dial-on-demand routing
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDSM</td>
<td>Digital Data Services Manager</td>
</tr>
<tr>
<td>DFC</td>
<td>dial feature card</td>
</tr>
<tr>
<td>DFP</td>
<td>Dynamic Feedback Protocol</td>
</tr>
<tr>
<td>DHCP</td>
<td>Dynamic Host Configuration Protocol</td>
</tr>
<tr>
<td>DLC</td>
<td>data-link connection</td>
</tr>
<tr>
<td>DLC</td>
<td>data-link control</td>
</tr>
<tr>
<td>DLCI</td>
<td>data-link connection identifier</td>
</tr>
<tr>
<td>DLR</td>
<td>designated local retransmitter</td>
</tr>
<tr>
<td>DLSw</td>
<td>data-link switching</td>
</tr>
<tr>
<td>DLU</td>
<td>dependent logical unit</td>
</tr>
<tr>
<td>DLU</td>
<td>destination logical unit</td>
</tr>
<tr>
<td>DLU</td>
<td>dynamic logical unit</td>
</tr>
<tr>
<td>DLUR</td>
<td>dependent logical unit requester</td>
</tr>
<tr>
<td>DLUS</td>
<td>dependent logical unit server</td>
</tr>
<tr>
<td>DM</td>
<td>disconnect mode</td>
</tr>
<tr>
<td>DMA</td>
<td>direct memory access</td>
</tr>
<tr>
<td>DMAC</td>
<td>destination MAC</td>
</tr>
<tr>
<td>DMLP</td>
<td>Distributed Multilink Point-to-Point Protocol</td>
</tr>
<tr>
<td>DNIS</td>
<td>dialed number identification service</td>
</tr>
<tr>
<td>DNS</td>
<td>Domain Name Server</td>
</tr>
<tr>
<td>DNS</td>
<td>Domain Name Service</td>
</tr>
<tr>
<td>DNS</td>
<td>Domain Name System</td>
</tr>
<tr>
<td>DOCSIS</td>
<td>Data-over-Cable Service Interface Specifications</td>
</tr>
<tr>
<td>DOI</td>
<td>domain of interpretation</td>
</tr>
<tr>
<td>DPRAM</td>
<td>dual-port RAM</td>
</tr>
<tr>
<td>DR</td>
<td>dynamic replenishment</td>
</tr>
<tr>
<td>DRAM</td>
<td>dynamic RAM</td>
</tr>
<tr>
<td>DRDA</td>
<td>Distributed Relational Database Architecture</td>
</tr>
<tr>
<td>DRiP</td>
<td>Duplicate Ring Protocol</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>DRP</td>
<td>Director Response Protocol</td>
</tr>
<tr>
<td>DSC</td>
<td>dial shelf control</td>
</tr>
<tr>
<td>DSC</td>
<td>dial shelf controller</td>
</tr>
<tr>
<td>DSI</td>
<td>dial shelf interconnect</td>
</tr>
<tr>
<td>DSI</td>
<td>dial shelf interface</td>
</tr>
<tr>
<td>DSIP</td>
<td>Dial Shelf Interconnect Protocol</td>
</tr>
<tr>
<td>DSL</td>
<td>digital subscriber line</td>
</tr>
<tr>
<td>DSP</td>
<td>digital signal processor</td>
</tr>
<tr>
<td>DSP</td>
<td>Domain Specific Part</td>
</tr>
<tr>
<td>DSPM</td>
<td>digital signal processor module</td>
</tr>
<tr>
<td>DSPRM</td>
<td>Digital Signal Processor Resource Manager</td>
</tr>
<tr>
<td>DSPU</td>
<td>downstream physical unit</td>
</tr>
<tr>
<td>DSR</td>
<td>data set ready</td>
</tr>
<tr>
<td>DSU</td>
<td>data service unit</td>
</tr>
<tr>
<td>DSU</td>
<td>digital service unit</td>
</tr>
<tr>
<td>DTE</td>
<td>data terminal equipment</td>
</tr>
<tr>
<td>DTP</td>
<td>Dynamic Trunking Protocol</td>
</tr>
<tr>
<td>DTR</td>
<td>data terminal ready</td>
</tr>
<tr>
<td>DVMRP</td>
<td>Distance Vector Multicast Routing Protocol</td>
</tr>
<tr>
<td>EC</td>
<td>EtherChannel</td>
</tr>
<tr>
<td>ECA</td>
<td>ESCON Channel Adapter</td>
</tr>
<tr>
<td>ECC</td>
<td>error-correcting code</td>
</tr>
<tr>
<td>ECC</td>
<td>Error-Check Code</td>
</tr>
<tr>
<td>ECC</td>
<td>error checking and correction</td>
</tr>
<tr>
<td>ECPA</td>
<td>Escon Channel Port Adapter</td>
</tr>
<tr>
<td>ECPA4</td>
<td>enhanced Escon Channel Port Adapter</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
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<tr>
<td>EEPROM</td>
<td>erasable programmable read-only memory</td>
</tr>
<tr>
<td>EGP</td>
<td>exterior gateway protocol</td>
</tr>
<tr>
<td>EHSA</td>
<td>enhanced high system availability</td>
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<tr>
<td>EID</td>
<td>endpoint identifier</td>
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<tr>
<td>EIGRP</td>
<td>Enhanced Interior Gateway Routing Protocol</td>
</tr>
<tr>
<td>ELAN</td>
<td>emulated LAN</td>
</tr>
<tr>
<td>ENVM</td>
<td>Constellation WAN Environmental Monitor</td>
</tr>
<tr>
<td>EOF</td>
<td>end of frame</td>
</tr>
<tr>
<td>EOIR</td>
<td>enhanced online insertion and removal</td>
</tr>
<tr>
<td>ESCON</td>
<td>Enterprise System Connection</td>
</tr>
<tr>
<td>ESP</td>
<td>Extended Services Processor</td>
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>FAQ</td>
<td>frequently asked questions</td>
</tr>
<tr>
<td>FB</td>
<td>feature board</td>
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<tr>
<td>FCIT</td>
<td>Undefined</td>
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<tr>
<td>FC-PFQ</td>
<td>feature card per-flow queueing</td>
</tr>
<tr>
<td>FDDI</td>
<td>Fiber Distributed Data Interface</td>
</tr>
<tr>
<td>FDL</td>
<td>Facility Data Link</td>
</tr>
<tr>
<td>FDM</td>
<td>frequency-division multiplexing</td>
</tr>
<tr>
<td>FE</td>
<td>Fast Ethernet</td>
</tr>
<tr>
<td>FEC</td>
<td>Fast EtherChannel</td>
</tr>
<tr>
<td>FI</td>
<td>format indicator</td>
</tr>
<tr>
<td>FIA</td>
<td>Fabric Interface ASIC</td>
</tr>
<tr>
<td>FIB</td>
<td>forwarding information base</td>
</tr>
<tr>
<td>FIFO</td>
<td>first-in, first-out</td>
</tr>
<tr>
<td>FIR</td>
<td>Finite Impulse Response</td>
</tr>
<tr>
<td>FM</td>
<td>Undefined</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>FMSP</td>
<td>Fax MSP</td>
</tr>
<tr>
<td>FPGA</td>
<td>field-programmable gate array</td>
</tr>
<tr>
<td>FQDN</td>
<td>fully qualified domain name</td>
</tr>
<tr>
<td>FQPCID</td>
<td>fully qualified procedure correlation identifier</td>
</tr>
<tr>
<td>FRMR</td>
<td>Frame Reject</td>
</tr>
<tr>
<td>FRU</td>
<td>field-replaceable unit</td>
</tr>
<tr>
<td>FSIP</td>
<td>Fast Serial Interface Processor</td>
</tr>
<tr>
<td>FSM</td>
<td>finite state machine</td>
</tr>
<tr>
<td>FTP</td>
<td>File Transfer Protocol</td>
</tr>
<tr>
<td>GBIC</td>
<td>Gigabit Interface Converter</td>
</tr>
<tr>
<td>GC</td>
<td>global configuration</td>
</tr>
<tr>
<td>GDS</td>
<td>general data stream</td>
</tr>
<tr>
<td>GE</td>
<td>Gigabit Ethernet</td>
</tr>
<tr>
<td>GEIP</td>
<td>Gigabit Ethernet Interface Processor</td>
</tr>
<tr>
<td>GGSN</td>
<td>gateway GPRS support node</td>
</tr>
<tr>
<td>GLC</td>
<td>Gigabit line card</td>
</tr>
<tr>
<td>GPRS</td>
<td>general packet radio service</td>
</tr>
<tr>
<td>GRP</td>
<td>gigabit route processor</td>
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<tr>
<td>GSN</td>
<td>GPRS support node</td>
</tr>
<tr>
<td>GSR</td>
<td>Internet router</td>
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<tr>
<td>GTF</td>
<td>Generalized Trace Facility</td>
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<tr>
<td>GTP</td>
<td>GPRS tunneling protocol</td>
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<tr>
<td>HDLC</td>
<td>High-Level Data Link Control</td>
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<tr>
<td>HDV</td>
<td>High Density Voice</td>
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<td>Acronym</td>
<td>Description</td>
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<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>HDX</td>
<td>half-duplex</td>
</tr>
<tr>
<td>HGW</td>
<td>home gateway</td>
</tr>
<tr>
<td>HPR</td>
<td>High-Performance Routing</td>
</tr>
<tr>
<td>HSA</td>
<td>high system availability</td>
</tr>
<tr>
<td>HSRP</td>
<td>Hot Standby Router Protocol</td>
</tr>
<tr>
<td>HWIDB</td>
<td>hardware interface descriptor block</td>
</tr>
<tr>
<td>IBGP</td>
<td>internal BGP</td>
</tr>
<tr>
<td>IBOC</td>
<td>in-band bit-oriented code</td>
</tr>
<tr>
<td>ICC</td>
<td>Interface Controller Card</td>
</tr>
<tr>
<td>ICMP</td>
<td>Internet Control Message Protocol</td>
</tr>
<tr>
<td>ICPIF</td>
<td>Calculated Planning Impairment Factor</td>
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<tr>
<td>ICS</td>
<td>Integrated Communication System</td>
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<tr>
<td>IDAP</td>
<td>Undefined</td>
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<tr>
<td>IDB</td>
<td>interface descriptor block</td>
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<tr>
<td>IDPROM</td>
<td>Identification PROM</td>
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<tr>
<td>IDS</td>
<td>Internal Data Services</td>
</tr>
<tr>
<td>IDT</td>
<td>Integrated Digital Terminal</td>
</tr>
<tr>
<td>IDU</td>
<td>indoor unit</td>
</tr>
<tr>
<td>IEEE</td>
<td>Institute of Electrical and Electronics Engineers</td>
</tr>
<tr>
<td>IETF</td>
<td>Internet Engineering Task Force</td>
</tr>
<tr>
<td>IF</td>
<td>intermediate frequency</td>
</tr>
<tr>
<td>IGMP</td>
<td>Internet Group Management Protocol</td>
</tr>
<tr>
<td>IGRP</td>
<td>Interior Gateway Routing Protocol</td>
</tr>
<tr>
<td>IKE</td>
<td>Internet Key Exchange</td>
</tr>
<tr>
<td>ILMI</td>
<td>Integrated Local Management Interface</td>
</tr>
<tr>
<td>IMA</td>
<td>inverse multiplexing over ATM</td>
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</table>
Glossary of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>IP</td>
<td>Internet Protocol</td>
</tr>
<tr>
<td>IPC</td>
<td>interprocess communication</td>
</tr>
<tr>
<td>IPDC</td>
<td>Internet Protocol device control</td>
</tr>
<tr>
<td>IPDLC</td>
<td>IP data link connection</td>
</tr>
<tr>
<td>IPG</td>
<td>Inter-Packet Gap</td>
</tr>
<tr>
<td>IPM</td>
<td>Cisco Internetwork Performance Monitor</td>
</tr>
<tr>
<td>IPPCP</td>
<td>IP Payload Compression Protocol</td>
</tr>
<tr>
<td>IPSec</td>
<td>IP Security</td>
</tr>
<tr>
<td>IPv6</td>
<td>IP version 6</td>
</tr>
<tr>
<td>IPX</td>
<td>Internetwork Packet Exchange</td>
</tr>
<tr>
<td>ISA</td>
<td>Integrated Services Adapter</td>
</tr>
<tr>
<td>ISAKMP</td>
<td>Internet Security Association and Key Management Protocol</td>
</tr>
<tr>
<td>ISDN</td>
<td>Integrated Services Digital Network</td>
</tr>
<tr>
<td>IS-IS</td>
<td>Intermediate System-to-Intermediate System</td>
</tr>
<tr>
<td>ISL</td>
<td>Inter-Switch Link</td>
</tr>
<tr>
<td>ISR</td>
<td>intermediate session routing</td>
</tr>
<tr>
<td>IVR</td>
<td>interactive voice response</td>
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>LAC</td>
<td>L2TP access concentrator</td>
</tr>
<tr>
<td>LANCE</td>
<td>Local Area Network Controller Ethernet</td>
</tr>
<tr>
<td>LANE</td>
<td>LAN Emulation</td>
</tr>
<tr>
<td>LAPB</td>
<td>Link Access Procedure, Balanced</td>
</tr>
<tr>
<td>LAT</td>
<td>local-area transport</td>
</tr>
<tr>
<td>LC</td>
<td>line card</td>
</tr>
<tr>
<td>LCB</td>
<td>Line Control Block</td>
</tr>
<tr>
<td>LCD</td>
<td>liquid crystal display</td>
</tr>
<tr>
<td>LCI</td>
<td>local channel identifier</td>
</tr>
</tbody>
</table>
LCN  logical channel number
LDLC  LocalDirector link control
LDN  local directory number
LDP  label distribution protocol
LEC  LANE Client
LECS  LANE Configuration Server
LEN  low-entry networking
LES  LANE Server
LFSID  local-form session identifier
LIR  link incident report
LLC  logical link control
LLC2  Logical Link Control, type 2
LMI  Local Management Interface
LN M  LAN Network Manager
LNS  L2TP network server
LPD  line printer daemon
LS  Undefined
LSA  link-state advertisement
LSIPC  LightStream interprocess communication
LSP  Label Switch Path
LSP  link-state packet
LU  logical unit
LU6.2  logical unit type 6.2

M
MAC  Media Access Control
MARS  Multicast Address Resolution Server
MAU  media attachment unit
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>MBRI</td>
<td>Multi-BRI</td>
</tr>
<tr>
<td>MBRI</td>
<td>Multiport Basic Rate Interface</td>
</tr>
<tr>
<td>MBus</td>
<td>maintenance bus</td>
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<tr>
<td>MCNS</td>
<td>Multimedia Cable Network System Partners, Ltd.</td>
</tr>
<tr>
<td>MCOM</td>
<td>Microcom carrier card</td>
</tr>
<tr>
<td>MD5</td>
<td>message digest algorithm 5</td>
</tr>
<tr>
<td>MDS</td>
<td>multicast distributed switching</td>
</tr>
<tr>
<td>MEMD</td>
<td>memory device</td>
</tr>
<tr>
<td>MGCP</td>
<td>Media Gateway Control Protocol</td>
</tr>
<tr>
<td>MIB</td>
<td>Management Information Base</td>
</tr>
<tr>
<td>MIB/SMT</td>
<td>Management Information Base/Station Management</td>
</tr>
<tr>
<td>MIC</td>
<td>media interface connector</td>
</tr>
<tr>
<td>MICA</td>
<td>Modem ISDN channel aggregation</td>
</tr>
<tr>
<td>MID</td>
<td>Multiplex ID</td>
</tr>
<tr>
<td>midb</td>
<td>multicast interface data block</td>
</tr>
<tr>
<td>MII</td>
<td>media-independent interface</td>
</tr>
<tr>
<td>MLS</td>
<td>multilayer switching</td>
</tr>
<tr>
<td>MLTG</td>
<td>multilink trunk group</td>
</tr>
<tr>
<td>MNCNS</td>
<td>Multimedia Cable Network System Partners, Ltd.</td>
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<tr>
<td>MNP4</td>
<td>Microcom Networking Protocol, level 4</td>
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<tr>
<td>MPC</td>
<td>MultiPath Channel</td>
</tr>
<tr>
<td>MPC</td>
<td>Multiprotocol-over-ATM client</td>
</tr>
<tr>
<td>MPLS</td>
<td>Multiprotocol Label Switching</td>
</tr>
<tr>
<td>MPOA</td>
<td>Multiprotocol over ATM</td>
</tr>
<tr>
<td>MPS</td>
<td>Multiprotocol-over-ATM server</td>
</tr>
<tr>
<td>MSDP</td>
<td>Multicast Source Discovery Protocol</td>
</tr>
<tr>
<td>MSFC</td>
<td>Multilayer Switch Feature Card</td>
</tr>
<tr>
<td>MPT</td>
<td>Ministry of Posts and Telecommunications</td>
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<td>MS</td>
<td>Management Services</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>---------</td>
<td>------------------------------------</td>
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<tr>
<td>MTU</td>
<td>maximum transmission unit</td>
</tr>
<tr>
<td>Mx</td>
<td><em>Undefined</em></td>
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<tr>
<td>NAK</td>
<td>negative acknowledgment</td>
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<tr>
<td>NAS</td>
<td>network access server</td>
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<tr>
<td>NAT</td>
<td>Network Address Translation</td>
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<tr>
<td>NBAR</td>
<td>network-based application recognition</td>
</tr>
<tr>
<td>NBP</td>
<td>Name Binding Protocol</td>
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<tr>
<td>NCE</td>
<td>network connection endpoint</td>
</tr>
<tr>
<td>NCP</td>
<td>Network Control Program</td>
</tr>
<tr>
<td>NCP</td>
<td>Network Control Protocol</td>
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<tr>
<td>NHDR</td>
<td>Network Layer Header</td>
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<tr>
<td>NHRP</td>
<td>Next Hop Resolution Protocol</td>
</tr>
<tr>
<td>NHS</td>
<td>Next Hop Server</td>
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<tr>
<td>NIM</td>
<td>network interface module</td>
</tr>
<tr>
<td>NIP</td>
<td>Nitro Interconnect Protocol</td>
</tr>
<tr>
<td>NLP</td>
<td>network-layer packet</td>
</tr>
<tr>
<td>NLSP</td>
<td>NetWare Link Services Protocol</td>
</tr>
<tr>
<td>NM</td>
<td>network module</td>
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<tr>
<td>NMI</td>
<td>nonmaskable interrupt</td>
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<tr>
<td>NMP</td>
<td>Network Management Processor</td>
</tr>
<tr>
<td>NMS</td>
<td>network management system</td>
</tr>
<tr>
<td>NMVT</td>
<td>network management vector transport</td>
</tr>
<tr>
<td>NNI</td>
<td>Network-to-Network Interface</td>
</tr>
<tr>
<td>NNS</td>
<td>network node server</td>
</tr>
<tr>
<td>NPE</td>
<td>network processing engine</td>
</tr>
<tr>
<td>NRM</td>
<td>normal response mode</td>
</tr>
</tbody>
</table>
Glossary of Acronyms

NRP | Network Routing Processor  
NRP | node route processor  
NSAP | network service access point  
NSE | network services engine  
NSP | Network Switch Processor  
NSP | node switch processor  
NVRAM | nonvolatile RAM

O

OAM | Operation, Administration, and Maintenance  
ODU | outdoor unit  
OIR | online insertion and removal  
OOBP | out-of-band port  
OOS | out of service  
OSPF | Open Shortest Path First  
OSS | Undefined

P

PA | port adapter  
PAD | packet assembler/disassembler  
PAgP | Port Aggregation Protocol  
PAM | port adapter module card  
PAM | pulse amplitude modulation  
PAP | Password Authentication Protocol  
PASCB | port adapter system control block  
PBP | packet-by-packet  
PC | program counter  
PCA | parallel channel adapter
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCI</td>
<td>protocol control information</td>
</tr>
<tr>
<td>PCM</td>
<td>pulse code modulation</td>
</tr>
<tr>
<td>PCPA</td>
<td>Parallel Channel Port Adapter</td>
</tr>
<tr>
<td>PCR</td>
<td>peak cell rate</td>
</tr>
<tr>
<td>PDP</td>
<td>policy decision point</td>
</tr>
<tr>
<td>PDU</td>
<td>protocol data unit</td>
</tr>
<tr>
<td>PGM</td>
<td>Pragmatic General Multicast</td>
</tr>
<tr>
<td>PIC</td>
<td>Peripheral Interface Controller</td>
</tr>
<tr>
<td>PIC</td>
<td>point in call</td>
</tr>
<tr>
<td>PIE</td>
<td>protocol information element</td>
</tr>
<tr>
<td>PIF</td>
<td>Packet Input FIFO</td>
</tr>
<tr>
<td>PIM</td>
<td>Protocol Independent Multicast</td>
</tr>
<tr>
<td>PIMv2</td>
<td>Protocol Independent Multicast version 2</td>
</tr>
<tr>
<td>PIU</td>
<td>PCM Interface Unit</td>
</tr>
<tr>
<td>PKI</td>
<td>public key infrastructure</td>
</tr>
<tr>
<td>PLD</td>
<td>programmable logic device</td>
</tr>
<tr>
<td>PLU</td>
<td>primary logical unit</td>
</tr>
<tr>
<td>PM</td>
<td><em>Undefined</em>, refers to SPE state machine</td>
</tr>
<tr>
<td>PNNI</td>
<td>Private Network-Network Interface</td>
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<tr>
<td>PoS</td>
<td>Packet over SONET</td>
</tr>
<tr>
<td>PoS</td>
<td>Packet over SONET/SDH</td>
</tr>
<tr>
<td>POST</td>
<td>power-on self test</td>
</tr>
<tr>
<td>POTS</td>
<td>plain old telephone service</td>
</tr>
<tr>
<td>PPP</td>
<td>Point-to-Point Protocol</td>
</tr>
<tr>
<td>PRI</td>
<td>Primary Rate Interface</td>
</tr>
<tr>
<td>PROM</td>
<td>programmable read-only memory</td>
</tr>
<tr>
<td>PU</td>
<td>physical unit</td>
</tr>
<tr>
<td>PU 2.0</td>
<td>Physical Unit 2.0</td>
</tr>
<tr>
<td>PU 2.1</td>
<td>Physical Unit 2.1</td>
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<tr>
<td>PVC</td>
<td>permanent virtual circuit</td>
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<tr>
<td>PVC</td>
<td>permanent virtual connection</td>
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<tr>
<td>PVID</td>
<td>Port VLAN ID</td>
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<tr>
<td>PVP</td>
<td>permanent virtual path</td>
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<tr>
<td>PXF</td>
<td>Parallel eXpress Forwarding</td>
</tr>
<tr>
<td>PXM</td>
<td>Processor Switching Module</td>
</tr>
</tbody>
</table>

**Q**

| QA   | queue and accumulator                      |
| QEM  | *Undefined*                                |
| QLLC | Qualified Logical Link Control             |
| QoS  | quality of service                         |

**R**

<p>| RA   | registration authority                     |
| RAC  | Resource Availability Confirm              |
| RADIUS| Remote Authentication Dial-In User Service|
| RARP | Reverse Address Resolution Protocol        |
| RAS  | Registration, Admission, and Status        |
| RAS  | remote access server                       |
| RBS  | Robbed-Bit Signaling                       |
| RCP  | remote copy protocol                       |
| RDB  | relational database                        |
| REXEC| remote execution                           |
| RF   | radio frequency                            |
| RIP  | Routing Information Protocol               |
| RISC | reduced instruction set computer           |
| RJE  | remote job entry                           |</p>
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>RLM</td>
<td>Redundant Link Manager</td>
</tr>
<tr>
<td>RNR</td>
<td>receive not ready</td>
</tr>
<tr>
<td>ROM</td>
<td>read-only memory</td>
</tr>
<tr>
<td>RP</td>
<td>Route Processor</td>
</tr>
<tr>
<td>RPA</td>
<td>Resource Pool Allocation</td>
</tr>
<tr>
<td>RPC</td>
<td>Remote Procedure Call</td>
</tr>
<tr>
<td>RPF</td>
<td>Reverse Path Forwarding</td>
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<tr>
<td>RPM</td>
<td>Route Processor Module</td>
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<tr>
<td>RPM</td>
<td>Resource Pool Management</td>
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<tr>
<td>RPS</td>
<td>Ring Parameter Server</td>
</tr>
<tr>
<td>RR</td>
<td>receive ready</td>
</tr>
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<td>RS</td>
<td>router shelf</td>
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<td>RS-232</td>
<td>EIA/TIA-232</td>
</tr>
<tr>
<td>RSA</td>
<td>Rivest, Shamir, and Adelman</td>
</tr>
<tr>
<td>RSC</td>
<td>route switch controller</td>
</tr>
<tr>
<td>RSCV</td>
<td>Route Selection Control Vector</td>
</tr>
<tr>
<td>rsh</td>
<td>remote shell</td>
</tr>
<tr>
<td>RSM</td>
<td>Route Switch Module</td>
</tr>
<tr>
<td>RSP</td>
<td>Route Switch Processor</td>
</tr>
<tr>
<td>RSRB</td>
<td>remote source-route bridging</td>
</tr>
<tr>
<td>RSVP</td>
<td>Resource Reservation Protocol</td>
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<tr>
<td>RTM</td>
<td>Real Time Monitor</td>
</tr>
<tr>
<td>RTP</td>
<td>Rapid Transport Protocol</td>
</tr>
<tr>
<td>RTP</td>
<td>Real-Time Transport Protocol</td>
</tr>
<tr>
<td>RTR</td>
<td>response time reporter</td>
</tr>
<tr>
<td>RTS</td>
<td>Request To Send</td>
</tr>
<tr>
<td>RTT</td>
<td>round-trip time</td>
</tr>
<tr>
<td>RTTMON</td>
<td>Round Trip Time Monitor</td>
</tr>
</tbody>
</table>
### Glossary of Acronyms

<table>
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<th>Acronym</th>
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<tr>
<td>RU</td>
<td>request/response unit</td>
</tr>
<tr>
<td>Rx</td>
<td>Receive</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>security association</td>
</tr>
<tr>
<td>SA</td>
<td>Source-Active</td>
</tr>
<tr>
<td>SADB</td>
<td>security association database</td>
</tr>
<tr>
<td>SAP</td>
<td>service access point</td>
</tr>
<tr>
<td>SAR</td>
<td>segmentation and reassembly</td>
</tr>
<tr>
<td>SC</td>
<td><em>Undefined</em></td>
</tr>
<tr>
<td>SCB</td>
<td>storage control blocks</td>
</tr>
<tr>
<td>SCB</td>
<td>system control board</td>
</tr>
<tr>
<td>SCC</td>
<td>Signaling Connection Control</td>
</tr>
<tr>
<td>SCCP</td>
<td>Signaling Connection Control Part</td>
</tr>
<tr>
<td>SCP</td>
<td>Service Control Point</td>
</tr>
<tr>
<td>SCP</td>
<td>System Control Protocol</td>
</tr>
<tr>
<td>SDLC</td>
<td>Synchronous Data Link Control</td>
</tr>
<tr>
<td>SDLLC</td>
<td>Synchronous Data Logical Link Control</td>
</tr>
<tr>
<td>SDP</td>
<td>Shelf Discovery Protocol</td>
</tr>
<tr>
<td>SDRAM</td>
<td>synchronous DRAM</td>
</tr>
<tr>
<td>SDT</td>
<td>Start Data Transfer</td>
</tr>
<tr>
<td>SFC</td>
<td>switch fabric card</td>
</tr>
<tr>
<td>SGBP</td>
<td>Stack Group Bidding Protocol</td>
</tr>
<tr>
<td>SGCP</td>
<td>Simple Gateway Control Protocol</td>
</tr>
<tr>
<td>SGSN</td>
<td>Serving GPRS Support Node</td>
</tr>
<tr>
<td>SID</td>
<td>Service ID</td>
</tr>
<tr>
<td>SIMM</td>
<td>single in-line memory module</td>
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<tr>
<td>SLARP</td>
<td>Serial Line Address Resolution Protocol</td>
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Glossary of Acronyms

SLB  Server Load Balancing
SLC  signaling link code
SLCI  Signaling Link Code Interface
SLIP  Serial Line Internet Protocol
SLU  secondary logical unit
SM  state machine
SMDS  Switched Multimegabit Data Service
SMRP  Simple Multicast Routing Protocol
SMTP  Simple Mail Transfer Protocol
SNA  Systems Network Architecture
SNASw  SNA Switch
SNMP  Simple Network Management Protocol
SNR  signal-to-noise ratio
SNRM  Set Normal Response
SOF  start of frame
SOP  Second-Generation Packet-over-SONET
SP  Switch Processor
SPAN  Switched Port Analyzer
SPE  service processing element
SPI  security parameter index
SPID  service profile identifier
SPM  source path message
SPMM  SIMM DSP module
SRA  source routing accelerator
SRAM  Static RAM
SRCP  Simple Resource Coordination Protocol
SRDB  source route relational database
SSCOP  Service-Specific Connection-Oriented Protocol
SSCP  system services control points
**Glossary of Acronyms**

**SSE** silicone switching engine

**SSH** Secure Shell

**SSM** Source Specific Multicast

**SSP** Silicon Switch Processor

**SSRP** Simple Server Redundancy Protocol

**SSTP** Shared Spanning-Tree Protocol

**STUN** serial tunnel

**SU** service unit

**SU** signaling unit

**SVC** switched virtual circuit

**SVI** switched virtual interface

**SW56** switched 56K

**SWIDB** software for Interface Descriptor Block

**SYSMGT** system management

---

**T**

**TAC** Cisco Technical Assistance Center

**TACACS** Terminal Access Controller Access Control System

**TCAM** Ternary Content Addressable Memory

**TCB** Transmission Control Block

**TCL** Toolkit Command Language

**TCP** Transmission Control Protocol

**TDM** time-division multiplexing

**TDP** Tag Distribution Protocol

**TDP** tag distribution protocol

**TDR** time domain reflectometer

**TE** tunnel equipment

**TED** Tunnel Endpoint Discovery
<table>
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<th>Acronym</th>
<th>Description</th>
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<td>TEI</td>
<td>terminal endpoint identifier</td>
</tr>
<tr>
<td>TFIB</td>
<td>Tag Forwarding Information Base</td>
</tr>
<tr>
<td>TFTP</td>
<td>Trivial File Transfer Protocol</td>
</tr>
<tr>
<td>TG</td>
<td>transmission group</td>
</tr>
<tr>
<td>TIB</td>
<td>Tag Information Base</td>
</tr>
<tr>
<td>TID</td>
<td>Terminal Identifier</td>
</tr>
<tr>
<td>TIFF</td>
<td>tagged image file format</td>
</tr>
<tr>
<td>TLV</td>
<td>type, length, value</td>
</tr>
<tr>
<td>TMQ</td>
<td>terminal port queueing</td>
</tr>
<tr>
<td>TP</td>
<td>Transport Protocol</td>
</tr>
<tr>
<td>TR</td>
<td>Token Ring</td>
</tr>
<tr>
<td>TRANGE</td>
<td>time-range</td>
</tr>
<tr>
<td>TSC</td>
<td>Tag Switch Controller</td>
</tr>
<tr>
<td>TSI</td>
<td>transmitting subscriber information</td>
</tr>
<tr>
<td>TSP</td>
<td>tag-switched path</td>
</tr>
<tr>
<td>TTL</td>
<td>time to live</td>
</tr>
<tr>
<td>TVC</td>
<td>tag switched controlled virtual circuit</td>
</tr>
<tr>
<td>TVC</td>
<td>tag virtual circuits</td>
</tr>
<tr>
<td>Tx</td>
<td>transmit</td>
</tr>
<tr>
<td>U</td>
<td>unnumbered acknowledgement</td>
</tr>
<tr>
<td>UA</td>
<td>unnumbered acknowledgement</td>
</tr>
<tr>
<td>UCB</td>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>UDLD</td>
<td>UniDirectional Link Detection</td>
</tr>
<tr>
<td>UDP</td>
<td>User Datagram Protocol</td>
</tr>
<tr>
<td>VACL</td>
<td>VLAN access control list</td>
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</table>
VAD  voice activity detection
VBR  variable bit rate
VC  virtual circuit
VCC  virtual channel connection
VCD  virtual circuit descriptor
VCI  virtual channel identifier (ATM only)
VCN  virtual circuit number
VFC  voice feature card
VFC  VoIP feature card
VG  voice gateway
VIC  voice interface card
VIP  Versatile Interface Processor
VLAN  virtual LAN
VMAC  Virtual MAC
VMPS  VLAN Membership Policy Server
VNM  Voice Network Manager
VoIP  Voice over IP
VPDN  Virtual Private Dialup Network
VPI  virtual path identifier
VPN  Virtual Private Network
VPNv4  Virtual Private Network version 4
VSI  Virtual Switch Interface
VSM  Voice Service Manager
VT  virtual terminal
VTAM  virtual telecommunications access method
VTP  VLAN Trunk Protocol
VTSP  voice telephony service provider
VTT  voltage termination
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
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<td>WCCP</td>
<td>Web Cache Communication Protocol</td>
</tr>
<tr>
<td>WCS</td>
<td>writable control store</td>
</tr>
<tr>
<td>WIC</td>
<td>WAN interface card</td>
</tr>
<tr>
<td>WLM</td>
<td>Workload Manager</td>
</tr>
<tr>
<td>WWW</td>
<td>World Wide Web</td>
</tr>
<tr>
<td>XCA</td>
<td>external communication adapter</td>
</tr>
<tr>
<td>XDR</td>
<td>eXternal Data Representation</td>
</tr>
<tr>
<td>XID</td>
<td>exchange identification</td>
</tr>
<tr>
<td>XNS</td>
<td>Xerox Network Systems</td>
</tr>
<tr>
<td>XOT</td>
<td>X.25-over-TCP</td>
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