Cisco CMTS System Messages

Documentation Survey

Is Cisco documentation helpful? Go to http://forums.cisco.com/eforum/servlet/viewsflash?setCookie=1&cmd=showform&pollid=rtgdoc01!rtgdoc to give us your feedback.

Document Revision History

Document Revision	Date	Change Summary
OL-12646-02	December 14, 2007	Added new and changed messages introduced in Cisco IOS Release 12.3(23)BC.
OL-12646-01	February 5, 2007	Added new and changed messages introduced in Cisco IOS Release 12.3(21)BC.
No part number assigned	2003	Initial version.

This document describes the system, error, and other informational messages generated by the Cisco CMTS universal broadband routers. This document contains the following major sections:

Note This document describes the error messages that appear in Cisco IOS Release 12.3(9a)BC and earlier Cisco IOS 12.2 BC software releases. Additional Cisco IOS software releases for the Cisco universal broadband routers might include a subset or superset of these system messages.

Use this document together with the tools and utilities that are available on Cisco.com at the following locations:

- Cisco Technical Assistance Center (TAC): http://www.cisco.com/tac
- Bug Toolkit: http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl
- Open a Case with TAC Assistance: http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl
- Complete the Cisco Routing Technology Group documentation survey:
  - http://www.cisco.com/warp/public/732/docsurvey/rtg/
- You can send your comments in e-mail to bug-doc@cisco.com.

Tip When contacting TAC, please have available the nonzipped, plain-text (.txt) output of the **show logging** and **show tech-support** commands, as well as any pertinent troubleshooting logs.

System Message Overview

The Cisco CMTS generates system, error, and other informational messages to inform the operator of significant events. These messages can be grouped into the following two categories:

- System Event Messages, page -3—Describes the system and error messages that are generated for events related to the Cisco CMTS platform, and its hardware and software components.
- DOCSIS 1.1 Event Messages, page -4—Describes the error messages for events as required by the DOCSIS 1.1 specifications.

This chapter describes only those system error messages that are specific to the Cisco CMTS platforms. For other system error messages that can be generated, see the *Cisco IOS System Error Messages, Cisco IOS Release 12.2* document, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122sup/122sems/index.htm

The Cisco uBR10012 router also shares a number of error messages with the Cisco 10000 Series Edge Services Router (ESR), which are documented in the *System Error Messages for Cisco IOS Release 12.0 S* and *Release 12.0 ST* documents, at the following URLs:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios120/120newft/120limit/120s/sems120s/index.htm
and
http://www.cisco.com/univercd/cc/td/doc/product/software/ios120/120newft/120limit/120st/sem120st/sem120st.htm

System Event Messages

The Cisco CMTS generates system event messages to inform the operator of platform-specific events related to the Cisco IOS software or hardware components, such as CPU or line cards. System error messages begin with a percent sign (%) and are structured as follows:

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

System error messages contain the following components:

- FACILITY is a code indicating the platform or other component that is generating the message. For example, the most common FACILITY values for the Cisco CMTS error messages are the following:
  - UBR7100—A Cisco uBR7100 series router generated the error message.
  - UBR7200—A Cisco uBR7200 series router generated the error message.
  - UBR10000—A Cisco uBR10012 router generated the error message.
- SEVERITY is a number that reflects the significance of the error message. All error messages have a Cisco severity number that ranges from 0 to 7. DOCSIS-related events also contain a DOCSIS severity level that ranges from 129 to 136. The lower the number, the more serious the situation. Table 1-4 describes the possible severity levels and their meanings.

Table 1-4 Error Message Severity Levels

Cisco Level	DOCSIS	Class	Description
0	129	Emergency	The system has become unusable and requires immediate attention. This problem might also be affecting other parts of the network.
1	130	Alert	Some type of system or connection failure has occurred and requires immediate attention.
2	131	Critical	An error occurred that requires immediate attention to avoid system or connection failure.
3	132	Error	An error condition occurred that requires attention to resolve. Failure to address this problem will result in some type of system or connection failure in the near future.
4	133	Warning	A condition occurred that indicates attention is needed in near future to avoid potential problems. Failure to address this problem could result in some type of system or connection failure later on.
5	134	Notice	A situation occurred that is normal but is significant enough that system administrators might want to notice.
6	135	Informational	An information message that might or might not be significant to the system administrators.
7	136	Debug	Messages that appear only while debugging is turned on.

- MNEMONIC is a string that uniquely identifies the error message. Error messages are usually organized and referred to by their mnemonic value.

- The Message-text is a string that provides details about the particular error. This string can include specifics about cable interface, IP or MAC addresses, and other information. In this document, the specific information is presented by variable fields that are indicated by square brackets ([ ]). A decimal number, for example, is represented as [dec].

For example, the following message is generated when the CMTS refuses to allow a CPE device to come online because the cable modem is already supporting the maximum number of IP addresses allowed in its configuration:

```
%UBR7200-5-MAXHOST: Interface [chars], New host with IP address [IP_address] and MAC
[enet] on SID [dec] (CM [enet]) is ignored.
```

When the message is actually generated, it contains the cable interface reporting the event, the IP and MAC addresses of the new CPE device, the SID it is attempting to use, and the cable modem associated with that SID:

```
%UBR7200-5-MAXHOST: Interface Cable3/0, New host with IP address 192.168.100.20 and MAC
00C0.18B3.0204 on SID 1 (CM 00C0.0e01.abcd) is ignored.
```

DOCSIS 1.1 Event Messages

The DOCSIS 1.1 specifications require the CMTS to generate a set of messages for DOCSIS-specific events. These event messages must conform to the requirements of Section 4.4.2.2.2, SYSLOG Message Format, in the *DOCSIS 1.1 Operations Support System Interface (OSSI) Specification* (SP-OSSIv1.1-I06-020830). This format is as follows:

```
%System_Error_Message: <Level>CMTS[DOCSIS]:<Event ID> Message Text
```

This format contains the following components:

- System Error Message—The Facility, Subfacility, Severity, and Mnemonic components of the message, in the same format that is used for System Error messages, as described in the "System Event Messages" section on page -3.
- Level—DOCSIS level number, ranging from 129 to 136, as given in Table 1-4. (The DOCSIS level parallels the Cisco severity levels of 0 to 7—add 129 to the Cisco severity level to get the DOCSIS level.)
- Event ID—Unique 8-digit decimal number that identifies the event. This Event ID is derived using the formula given in Section 4.4.2.2.2 of the OSSI specification.
- Event Message Text—String that describes the error message. It typically includes any relevant parameters, such as the MAC address of a cable modem or the cable interface on which the event occurred.

For example, the CMTS generates the following message when a Dynamic Channel Change Acknowledge (DCC-ACK) message is rejected because it is not in the proper format. This error message is of severity 4, DOCSIS level 133, with the Event ID of 67040500.

```
%UBR7200-4-DCC_ACK_REJ_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<67040500> DCC-ACK rejected
message syntax error
```

Tip For a complete list of DOCSIS-specific event messages, see Appendix H in the DOCSIS OSSI 1.1 specification, which is listed above. Most DOCSIS-specific event messages also correspond to a specific DOCSIS confirmation code. For a complete list of DOCSIS 1.1 confirmation codes, see section C.4, Confirmation Code, in the DOCSIS 1.1 RF specification.

Note The DOCSIS 1.1 event messages appear only in Cisco IOS images that support DOCSIS 1.1 operations, such as the Cisco IOS Release 12.2 BC train. Use the **cable event syslog-server** command to enable generation of these messages and their transmission to a SYSLOG server.

Cisco CMTS System Messages

This section lists the CMTS system messages for the Cisco uBR7100 series, Cisco uBR7200 series, and Cisco uBR10012 routers. The messages are listed alphabetically, first according to the facility portion of the message, and then according to the mnemonic portion of the message.

ALARM

This section describes system error messages that are related to alarms.

`%ALARM-3-CLEAR: [chars] [chars] [chars] [chars] [chars]`

Explanation The alarm has been cleared.

Recommended Action No action is required.

`%ALARM-6-ENTITY_INFO: [chars] [chars] [chars] [chars] [chars]`

Explanation This is entity alarm assertion or deassertion information.

Recommended Action No action is required.

```
%ALARM-3-NOMEM: OUT of Memory: [chars]
```

Explanation System is running low on memory.

Recommended Action Copy the error message and get the **show tech output** data that may help identify the nature of the error. Reboot the system. If it is the line card, reboot of the line card alone would be sufficient.

CHKPT

This section describes system error messages that are related to the Checkpoint Facility (CF) subsystem, which manages the passing of messages from the Active to Standby interfaces, and which also handles sequencing and throttling, as needed during redundancy operations.

```
%CHKPT-4-DISABLED: Check Pointing is disabled. Client [chars] should not be
calling any CF API
```

Explanation A checkpoint client has attempted to send an IPC message after redundancy operations have been disabled. This can be due to lost IPC messages or delays in synchronization, which will eventually resolve themselves.

Recommended Action No action is required.

```
%CHKPT-4-DUPID: Duplicate checkpoint client ID ([dec]).
```

Explanation A checkpoint client is using a client ID that is already assigned to another client. This could be due to a synchronization delay, which typically will resolve itself.

Recommended Action No action is required.

```
%CHKPT-3-ILLEGAL: ILLEGAL call to CF API on ([chars]) by ([chars]).
```

Explanation A severe software error occurred with the Checkpoint Facility subsystem.

Recommended Action Verify that the CMTS is running released software. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

```
%CHKPT-4-INVALID: Invalid checkpoint client ID ([dec]).
```

Explanation A checkpoint client is using an old or stale client ID. This could be due to a synchronization delay, which typically will resolve itself.

Recommended Action No action is required.

```
%CHKPT-3-IPCPORT: Unable to create IPC port on ([chars]).
```

Explanation A severe checkpoint error occurred because the system was unable to allocate the resources needed to create a communications port for the Interprocess Communications (IPC) channel needed to transmit messages.

Recommended Action Verify that the CMTS is running released software. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

```
%CHKPT-3-IPCSESSION: Unable to open an IPC session for communicating with
([chars]). rc= [dec]
```

Explanation A severe checkpoint error occurred because the system was unable to establish an Interprocess Communications (IPC) session between interfaces, which is needed to transmit messages.

Recommended Action Verify that the CMTS is running released software. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

```
%CHKPT-3-NOMEM: Unable allocate resource for CF on ([chars]).
```

Explanation A severe checkpoint error occurred because the system was unable to allocate the resources (typically memory) on the indicated interface, as needed to create an Interprocess Communications (IPC) channel needed to transmit messages.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that the CMTS is running released software. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

```
%CHKPT-3-RFREG: Unable to register checkpoint as client of RF.
```

Explanation A severe checkpoint error occurred because the system was unable to register with the redundancy facility (RF) so that it could begin the transmission of IPC messages between interfaces.

Recommended Action Verify that the CMTS is running released software. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

```
%CHKPT-4-SENDFAILED: Checkpointing send failed client ([dec])
```

Explanation A checkpoint client failed in an attempt to send an IPC message after redundancy operations have been disabled. This can be due to lost IPC messages or delays in synchronization, which will eventually resolve themselves.

Recommended Action No action is required.

```
%CHKPT-3-UNKNOWNMSG: Unknown message received from peer on standby for client
([dec]).
```

Explanation A severe software error occurred with the Checkpoint Facility subsystem. This might indicate a Cisco IOS software mismatch between the Active and Standby interfaces, or between a line card and the PRE module.

Recommended Action Verify that the CMTS is running released software. Reload the microcode on the affected line cards. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

CLCJIB

This section lists system error messages generated by the JIB subsystem on the Cisco uBR10012 router and Broadband Processing Engine (BPE) cable interface line cards, such as the Cisco uBR-MC5X20S, Cisco uBR-MC16U/X, and Cisco uBR-MC28U/X cards. The JIB is a custom-designed processor that performs DOCSIS MAC-layer processing, such as DOCSIS encapsulation, BPI encryption, CRC generation, concatenation, fragmentation, and payload header suppression (PHS).

The following messages are generated when the JIB processor receives a bad MAC-layer packet over the main data bus on the Cisco CMTS router.

```
%CLCJIB-6-BADJIBHDR: [chars]: JIB [dec] DS[dec] Iron bus error packet (count
[dec]) [chars]
```

Explanation The JIB processor dropped the specified DOCSIS MAC-layer packet because the packet contained an error or was invalid. This message displays the first part of the dropped packet.

Recommended Action Occasional bad packets are expected during normal operation. If the bad packets are all coming from the same cable modem, verify that the cable modem is running DOCSIS-qualified software. If the problem persists, verify that the CMTS is running released software. Copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

`%CLCJIB-6-BADJIBPKT: [chars]`

Explanation The JIB processor dropped the specified DOCSIS MAC-layer packet because the packet contained an error or was invalid. This message displays the second part of the dropped packet. For the header portion of the packet, as well as the downstream on which it was received, see the previous %CLCJIB-6-BADJIBHDR error message.

Recommended Action Occasional bad packets are expected during normal operation. If the bad packets are all coming from the same cable modem, verify that the cable modem is running DOCSIS-qualified software. If the problem persists, verify that the CMTS is running released software. Copy the error message exactly as it appears, and use the **show tech-support** command to collect information about the problem. 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.

`%CLCJIB-6-TSLOAD: JIB [dec] timestamp is reloaded`

Explanation The JIB timestamp is reloaded from the TCC card when repeated mismatched timestamps are detected.

Recommended Action If the error messages are printed out continuously, it could be the indication of some sort of hardware problem.

1. If one JIB on a linecard indicates a mismatch but the other two JIBs do not, it could be a broken JIB or a bad timestamp connection to that JIB.

2. If all three JIBs indicate the mismatches (or more than one), it could indicate a linecard-level connection problem to the TCC card.

3. If JIBs on multiple linecards indicate mismatches, it is likely a TCC card problem of some sort.

`%CLCJIB-6-TSMISMATCH: JIB [dec] timestamp mismatch`

Explanation The JIB on a linecard indicates a mismatch timestamp from the TCC card. Once it detects repeated mismatched timestamps, the timestamp will be reloaded from the clock card to bring the JIB back in sync.

Recommended Action If the error messages are printed out continuously, it could be the indication of some sort of hardware problem.

1. If one JIB on a linecard indicates a mismatch but the other two JIBs do not, it could be a broken JIB or a bad timestamp connection to that JIB.

2. If all three JIBs indicate the mismatches (or more than one), it could indicate a linecard-level connection problem to the TCC card.

3. If JIBs on multiple linecards indicate mismatches, it is likely a TCC card problem of some sort.

HCCP

This section lists system error messages generated by the Hot Connection to Connection Protocol (HCCP) redundancy subsystem.

`%HCCP-3-BADAUTH: Grp [dec] Mbr [dec] [chars]: bad authentication detected.`

Explanation The HCCP software has detected that a message sent between the Working and Protect interfaces had an invalid authentication key.

Recommended Action Verify that the authentication key defined on the Working interface matches the one configured on the Protect interface. If necessary, reconfigure one or both interfaces using the **hccp authenticate** command.

`%HCCP-3-BADCHAN: Grp [dec] Mbr [dec] [chars]: channel switch "[chars]" failed, retries exhausted.`

Explanation The indicated member of the specified HCCP group has been notified of a failure in its channel switch.

Recommended Action Verify the connections between the channel switch and CMTS. Verify that the channel switch is online and functioning.

`%HCCP-3-BADINTERPKT: Received an unexpected pkt in [chars] SYNC_Q`

Explanation The HCCP Cisco uBR10012 received a packet meant for a Cisco uBR7200 or cable line card.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%HCCP-3-BADMSG: Grp [dec] Mbr [dec] [chars]: received wrong type of message-[chars].`

Explanation The indicated member of the specified group received an inappropriate HCCP message for its current state of Working or Protect.

Recommended Action Check the configuration of both the Working and Protect interfaces. In particular, check that one interface is configured as the Working interface, and the other is configured as the Protect interface.

```
%HCCP-3-BADSTATE: [chars] Grp [dec], inconsistent state!!
```

Explanation The indicated member of the specified group has detected an HCCP state inconsistency in the indicated interface after a switchover. This typically happens because the interface is not in the state that the processor expects it to be, perhaps because the interface did not properly respond to the latest configuration commands.

Recommended Action Reset the indicated interface to resynchronize the interfaces. If this problem occurs frequently, upgrade to Cisco IOS Release 12.2(11)BC3 or a later 12.2 BC release.

```
%HCCP-3-NOINTFC: No interfaces available for IP connection.
```

Explanation The HCCP protocol requires an out-of-band path for its inter-router communication, using an interface that is not part of a HCCP group.

Recommended Action Create a path between the two routers that is not part of the HCCP group. Typically, this should be a direct connection, but could also be accomplished by using a routed network connection.

```
%HCCP-3-OUT_OF_ORDER_LC2RP: Grp [dec] Mbr [dec] status [chars]: Received LC to RP
sync in standby state.
```

Explanation The indicated member of the specified group has received an HCCP SYNC message, instructing it to synchronize its configuration with the processor card. The interface has rejected the message because the interface is in the standby state. This can indicate either a software failure, or that the Working and Protect interfaces are out of sync.

Recommended Action Verify that both interfaces are installed and configured. Verify the CMTS is running released software. 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.

```
%HCCP-3-OUT_OF_ORDER_MSG: Grp [dec] Mbr [dec] status [chars]: NULL hp encountered.
```

Explanation The indicated member of the specified group has received HCCP messages that are out of their proper order. This can indicate either a software failure, or that the Working and Protect interfaces are out of sync.

Recommended Action Verify that both interfaces are installed and configured. Verify the CMTS is running released software. Upgrade to Cisco IOS Release 12.2(11)BC3 or later 12.2 BC release. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%HCCP-3-PROTECTING_TOO_MANY: Grp [dec] Mbr [dec] status [chars]: Protecting too
many Workings.
```

Explanation The indicated member of the specified group has detected that the Protect interface has been configured to protect too many Working interfaces.

Recommended Action Reconfigure the Protect interface so that it is protecting fewer Working interfaces. In particular, verify that the same Protect interface is not protecting multiple interfaces on the same cable interface line card (because if the Working card goes down, the Protect interface will be able to replace only one of the Working interfaces). If this is already the case, verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%HCCP-3-SNMPFAIL: Grp [dec] [chars]: failed to initialize SNMP.
```

Explanation The indicated member of the specified group failed to initialize the SNMP subsystem and create an SNMP message.

Recommended Action Verify that the SNMP configuration on the CMTS is correct. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%HCCP-4-BADPATYPE: Grp [dec] Mbr [dec] [chars]: peer is not identical.
```

Explanation The indicated member of the specified group has detected that the Working and Protect interfaces are not identical cards. Identical hardware must be used for the Working and Protect cards, otherwise a problem might happen, depending on the circumstances. For example, a Cisco uBR-MC16S card can be protected by a Cisco uBR-MC16C card, but only if the Cisco uBR-MC16S card is not using any advanced spectrum management features (which are not supported on the Cisco uBR-MC16C).

Recommended Action Verify that the Working and Protect interfaces are using identical hardware.

```
%HCCP-4-BADVER: Grp [dec] Mbr [dec] [chars]: bad version [chars] detected.
```

Explanation The indicated member of the specified group has detected an invalid HCCP version number. This could indicate a mismatch between the Cisco IOS software that is running on the processor card and the interface cards.

Recommended Action Reset the interface, or perform an OIR of the Working and Protect cards to ensure that they are using the proper version of the Cisco IOS software. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%HCCP-4-NOREVERT: Grp [dec] Mbr [dec]: Revert operation cancelled.
```

Explanation The indicated HCCP group member did not attempt to revert back to the Working interface. A possible reason for this could be that keepalive messages to the Working interface were not returned, indicating a keepalive failure or a possible disconnection of the cables.

Recommended Action Check the upstream and downstream coaxial cables to the Working interface have not been disconnected or cut. Check the configuration of the interface and ensure that keepalives have not been disabled using the *no keepalive* command. If necessary and if possible, perform an OIR on the Working Interface card, removing it and reinserting it. After fixing the problem, you can either wait for the protect interface to revert to the working interface, or you can perform a manual revert using the **hccp switch** command.

```
%HCCP-4-NOSUBIF: Grp [dec] [dec] [chars]: [chars].[dec] is not found.
```

Explanation The indicated member of the specified group has detected that the Protect interface is not configured with the same sub-interfaces as the Protect interface.

Recommended Action Reconfigure the Protect interface so that it has a matching sub-interface configuration with the Working interface.

Recommended Action

```
%HCCP-4-PEER_CRASH: Received crash notification from [dec]
```

Explanation The peer router has sent a sync message indicating that it has crashed. Any working interfaces on that router that have been configured with protect interfaces on another router are being switched over.

Recommended Action Determine the cause of the peer router's crash.

```
%HCCP-4-STATICSYNC_FAILURE: HCCP [dec] [chars]: Aborting Static Sync because
[chars].
```

Explanation The HCCP static synchronization failed because of errors during the synchronization process.

Recommended Action Enter hccp resync in the command line interface.

```
%HCCP-5-ACTIVE: Grp [dec] Mbr [dec] [chars]: change state from standby to active:
[chars]
```

Explanation The indicated member of the specified HCCP group has changed its state from standby to active because it received the indicated message.

Recommended Action No action is needed (except to verify that connectivity has been preserved).

`%HCCP-5-CHANOFF: Grp [dec] Mbr [dec] [chars]: turning off channel.`

Explanation The indicated member of the specified group has turned off its channel switch.

Recommended Action No action is needed (except to verify that connectivity has been preserved).

`%HCCP-5-CHANON: Grp [dec] Mbr [dec] [chars]: turning on channel.`

Explanation The indicated member of the specified group has turned on its channel switch.

Recommended Action No action is needed (except to verify that connectivity has been preserved).

`%HCCP-5-FAILURE: Grp [dec] Mbr [dec] [chars]: received failure notice-[chars].`

Explanation The indicated member of the specified group has been notified that the indicated failure or switchover has occurred.

Recommended Action Check the source of the failure to determine the cause. Check the console log for other system error messages that might identify the source problem.

`%HCCP-5-HELLO: Grp [dec] Mbr [dec] [chars]: HCCP Hello caused state transition.`

Explanation The indicated Protect interface of the specified group received an internal Hello message from the Working interface, but the message indicates that the operational states of the Working and Protect interfaces are inconsistent.

Recommended Action No action is needed, because the two interfaces will transition to the appropriate states.

`%HCCP-5-HELLO_ACK: Grp [dec] Mbr [dec] [chars]: HCCP Hello ACK initiating switchover.`

Explanation The indicated Protect interface of the specified group received an internal Hello Acknowledgement message from the Working interface, but the message indicates that the operational states of the Working and Protect interfaces are inconsistent.

Recommended Action No action is needed, because the two interfaces will transition to the appropriate states.

`%HCCP-5-HOLDTIMER: Grp [dec] Mbr [dec] [chars]: HCCP Hold Timer Expired.`

Explanation The internal hold timer used by the HCCP system has expired, without the required message being sent or received by the indicated interface. This typically indicates that one or more HCCP messages was lost, probably because the CMTS processor has run out of resources, such as memory, or that the processor is at or near 100 percent utilization and cannot process all of the HCCP messages.

Recommended Action Verify that the CMTS is operating normally. Use the **show process** command to display the currently running processes and whether any of the processes are overusing resources. If necessary, reboot the CMTS or add additional memory to the processor card.

`%HCCP-5-NOSWITCHOVER: Grp [dec] Mbr [dec] [chars]: ignored switchover or failover notice.`

Explanation The indicated member of the specified group has ignored a switchover notice because it either has no knowledge of the indicated peer, or because a switchover has just occurred and other switchovers are ignored until after the system has stabilized during the wait-to-restore period.

Recommended Action No action is needed, except that if this occurred during a switchover, you might want to check the channel switch for a possible channel failure.

`%HCCP-5-STANDBY: Grp [dec] Mbr [dec] [chars]: change state from active to standby: [chars]`

Explanation The indicated member of the specified group has changed from active to standby because it received the indicated message.

Recommended Action No action is needed (except to verify that connectivity has been preserved).

`%HCCP-5-STATICSYNC: Grp [dec] Mbr [dec] [chars]: receiving static sync.`

Explanation The indicated member of the specified group has received a RESYNC message and is starting to receive static SYNC messages.

Recommended Action No action is needed (except to verify that connectivity has been preserved).

`%HCCP-5-SWITCHOVER: Grp [dec] Mbr [dec] [chars]: switching over.`

Explanation The indicated member of the specified group is switching over with its peer.

Recommended Action No action is required, except to investigate why the switchover is occurring.

`%HCCP-5-SWITCHOVERREADY: Grp [dec] Mbr [dec] [chars]: ready to switchover.`

Explanation The indicated member of the specified group is ready to switchover again because its wait-to-restore timer has expired. This timer begins counting down after a switchover, so that another switchover cannot occur until the current switchover has completed. When this timer has expired, it indicates that the system has stabilized and is ready to complete another switchover if needed.

Recommended Action No action is required.

`%HCCP-5-SWITCHREQ: Grp [dec] Mbr [dec] [chars]: requested switchover, retry [dec].`

Explanation The indicated member of the specified group is sending a switchover request.

Recommended Action No action is required, except to investigate why the switchover is occurring.

`%HCCP-6-HCCP_CHAN_RFSW_SNMP_ERROR: [chars] error: [chars].`

Explanation There were problems with SNMP in the HCCP channel process.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%HCCP-6-HCCP_CHAN_RFSW_SNMP_INFO: [chars]: [chars].`

Explanation Status of SNMP response to set cmd to rfswitch

Recommended Action If the response is “Fail”, check connectivity to the RF Switch, and telnet to check RF switch status.

`%HCCP-6-LC_RPLC_CFGSYNC_CONFIG: HCCP [dec] [dec] [chars]: LC [chars]`

Explanation The attempted HCCP line card configuration recovery failed because the last rplc_cfgsync configuration was not successful.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%HCCP-6-LC_RPLC_CFGSYNC_CONFIG_PARSER: Parser Error: [dec]`

Explanation The attempted HCCP line card configuration recovery had a parser error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%HCCP-6-LC_RPLC_CFGSYNC_CONFIG_RECOVER: HCCP [dec] [dec] [chars]: LC [chars] rplc_cfgsync configuration recover is succeed.`

Explanation The attempted HCCP line card configuration recovery succeeded.

Recommended Action No action is needed.

IPCGRP

This section describes error messages generated by the subsystem that manages interprocess communications (IPC) messages with the Gigabit Route Processor (GRP) on the PRE1 module on the Cisco uBR10012 router. Some of these messages can also appear on a Cisco uBR7246VXR router that is using a Broadband Processing Engine (BPE) cable interface line card, such as the Cisco uBR-MC16U/X and Cisco uBR-MC28U/X cards.

These IPC messages control the traffic that is passed between the processor card and line cards, as well as provide CEF forwarding information, traffic statistics, and management and control information.

```
%IPCGRP-6-BADCRDST: Unknown line card OIR state, [dec].
```

Explanation The specified line card was found in an invalid OIR state. The valid OIR states are as follows:

- NONE—The line card is initializing.
- BOOTED—The line card has booted its Cisco IOS software image and is initiating IPC communications with the processor module.
- ALIVE—The line card has initialized and communicating with the PRE1 module.

An known OIR state could indicate that the line card is not running the same Cisco IOS software release as the processor module, and that the processor module is sending IPC messages that are not recognized by the line card.

Recommended Action Verify that you are running released software on the Cisco CMTS. If so, reload the line card using the **microcode reload** command or by removing and reinserting the line card. If the problem persists, reload the processor module.

```
%IPCGRP-6-BADCRDTYP: The PRE thinks the line card has a type other than the actual
type, actual [dec], PRE [dec].
```

Explanation The processor module lists the specified card as being a different type of card than its actual type. This could occur during an OIR process, when a card of one type is being replaced by a card of another type, or during initial boot when the PRE1 module is attempting to download a software image to the line card.

Recommended Action No action is needed as the processor module automatically restarts the initialization for the line card. If the problem persists, remove and reinsert the line card. Verify that you are running released software on the Cisco CMTS.

`%IPCGRP-6-BADIMGCKSUM: The downloaded image has a bad checksum, required 0x[hex], actual 0x[hex]`

Explanation A line card downloaded a software image that had a bad checksum. Typically, the line card images are integrated into the Cisco IOS software for the router, and a bad checksum would indicate a transient problem on the network between the processor module and the line card, which should not happen. This problem might occur if a new image is being manually downloaded to the line card, or if the image file itself has been corrupted before the transfer.

Recommended Action No action is needed, typically because the card will reattempt the download. If the problem persists, reload the Cisco IOS software on the router to force the line cards to reload the card images that are part of that particular image.

`%IPCGRP-6-BARENBDISAB: Barium interface [chars] Primary [chars]`

Explanation The Barium interface, which is the ASIC that provides the interface between a line card and the Cisco uBR10012 backplane, has been either enabled or disabled.

Recommended Action No action is needed, because this is a normal part of initialization or OIR processes.

`%IPCGRP-6-CLCREBOOT: Cable Linecards reset due to "[chars]".`

Explanation This message is generated by the PRE that one or all line cards have been reset.

Recommended Action No action is needed.

`%IPCGRP-6-DNLDOK: The image download was successful.`

Explanation A line card has successfully downloaded its software image from the processor module.

Recommended Action No action is needed.

`%IPCGRP-6-DNLDOVRUN: The image download has overrun the buffer`

Explanation The line card downloaded a software image from the processor module, but the image overran the card's image buffer. This could indicate that the wrong image was downloaded to the line card, or a potential hardware problem with the card's memory buffers.

Recommended Action No action is needed as the line card automatically restarts the download. If the problem persists, verify that you are using released software on the Cisco CMTS that supports this particular line card. If necessary, reload the Cisco IOS software on the router to force the line cards to reload the card images that are part of that particular image.

`%IPCGRP-6-DNLDTOOLARG: The PRE is attempting to download an image bigger than the line cards buffer, available [dec], dnld size [dec].`

Explanation A line card requested a download of a software image that is larger than the card's available buffer size.

Recommended Action Remove and reinsert the line card. If this does not correct the problem, verify that you are using a released version of the line card and not a prototype with less memory. Verify that you are running released software on the Cisco CMTS that supports this particular line card.

`%IPCGRP-3-EVTOP: IPC event [integer] (slot[integer]/[integer]): [chars]`

Explanation The specified IPC event processing operational error occurred with the specified line card.

Recommended Action Verify that you are using released software on the Cisco CMTS. If using BPI+ encryption, verify that you are using at least Cisco IOS Release 12.2(8)BC1 or later software. If so, 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.

`%IPCGRP-6-IGNOREDNLD: Ignoring new downloaded image.`

Explanation The line card successfully downloaded a new software image but is not using that image, because the line card is already up and running using another software image. The line card must be manually reloaded to force it to use the new image.

Recommended Action No action is needed. To force the line card to use the new image, reload the line card.

`%IPCGRP-6-INTENBDISAB: Interface [chars]`

Explanation The interface has been enabled or disabled, typically as part of a card's bringup or OIR routines.

Recommended Action No action is needed.

`%IPCGRP-6-LCREBOOT: LC Reset due to "[chars]".`

Explanation This message is generated by the line card that it is being reset.

Recommended Action No action is needed.

```
%IPCGRP-6-NBLKEVT_Q_FULL: Nonblocking IPC event queue full ([dec] events)
```

Explanation The non-blocking IPC event queue was filled with IPC messages, so the processor module flushed all entries out of the buffer to ensure that current traffic can be processed. This message could occasionally occur during periods of heavy network usage.

Recommended Action No action is needed. If this situation occurs frequently, verify that all line cards are operational and are not in a locked state that is causing them to repeatedly generate the same IPC messages. Also verify that the processor module is not running at or near 100 percent CPU usage, causing it to be unable to process the IPC messages as they arrive.

```
%IPCGRP-3-NBLKQ: [chars]
```

Explanation The line card could not create a non-blocking event, message, or reply queue, or it could not create a process for non-blocking events. This typically indicates a memory problem or software error on the line card.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%IPCGRP-6-NBLKRSP_Q_FULL: Nonblocking IPC response queue full ([dec] responses)
```

Explanation The non-blocking IPC response queue was filled with IPC messages, so the processor module flushed all entries out of the buffer to ensure that current traffic can be processed. This message could occasionally occur during periods of heavy network usage.

Recommended Action No action is needed. If this situation occurs frequently, verify that all line cards are operational and are not in a locked state that is causing them to repeatedly generate the same IPC messages. Also verify that the processor module is not running at or near 100 percent CPU usage, causing it to be unable to process the IPC messages as they arrive.

```
%IPCGRP-6-NOAPIDAT: Unable to acquire port data for the API port.
```

Explanation The processor module could not determine the port ID to be used for IPC messages with the specified line card. This could indicate that the line card failed to complete the initial IPC handshaking with the processor module. This could also indicate a possible software problem on the line card, such as a buffer memory leak.

Recommended Action No action is needed if you are running current released Cisco IOS software on the Cisco CMTS, because the processor module automatically reloads the line card. If the problem persists, remove and reinsert the line card. If this does not fix the problem, reload or power-cycle the Cisco CMTS.

`%IPCGRP-6-NOAPIPORT: No API port ID for, [chars]`

Explanation The processor module could not determine the port ID to be used for IPC messages with the specified line card. This could indicate that the line card failed to complete the initial IPC handshaking with the GRP on the processor module. This could also indicate a possible software problem on the line card, such as a buffer memory leak.

Recommended Action No action is needed if you are running current released Cisco IOS software on the Cisco CMTS, because the processor module automatically reloads the line card. Otherwise, upgrade to the latest Cisco IOS image. If the problem persists, remove and reinsert the line card. If this does not fix the problem, reload or power-cycle the Cisco CMTS.

`%IPCGRP-6-NOBPEHWIDB: Can't find the HW IDB for the BPE interface.`

Explanation The processor module could not find the interface for the Backplane Ethernet, which is required for communication with the line cards. The system is therefore initiating a crash. This could indicate either a software error or a hardware problem.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the processor module. If that does not correct the problem, try replacing the processor module. If the problem persists, 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.

`%IPCGRP-6-NOINBND: Unable to create "[chars]" port, error [dec].`

Explanation The line card could not create the inbound API port for IPC messages with the processor module.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the line card. If the problem continues, 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.

`%IPCGRP-6-NOIPCPAK: Unable to get an available, empty IPC packet buffer.`

Explanation The line card could not obtain a free packet buffer for IPC messages from its memory pool. This typically indicates a memory problem or software error on the line card.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the line card. If the problem continues, 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.

```
%IPCGRP-6-NOKEEP: Too long since a keepalive was received from the PRE.
```

Explanation The line card did not receive a keepalive message from the processor module for 15 seconds. This typically indicates that the system controller has crashed.

Recommended Action No action is needed, because the line card restarts its IPC subsystem. If this message occurs frequently, check the running configuration to see if the **scheduler allocate** command has been changed from its default values, preventing the PRE-1 module from sending the IPC keepalive messages. If necessary, reset the command to its default values with the **default scheduler allocate** command in global configuration mode.

```
%IPCGRP-6-NOMSGSND: Unable to send an IPC message, error [dec].
```

Explanation The line card is reporting that the specified error occurred during an attempt to send an IPC message to the processor module.

Recommended Action No action is needed if this error occurs only occasionally. Otherwise, verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the line card. If the problem continues, 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.

```
%IPCGRP-3-NOMSTR: Unable to open the IPC master UDP port
```

Explanation The line card is unable to open the UDP port that it uses to communicate with the IPC master.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%IPCGRP-6-NOOPENAPI: Unable to open the line card API IPC port, error [dec].
```

Explanation The line card cannot determine the port number to be used for IPC messages.

Recommended Action No action is needed, because the line card restarts its IPC subprocess. If the problem persists, verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the line card. If the problem continues, 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.

`%IPCGRP-6-NOPROC: Unable to create IPC message dispatch process.`

Explanation The line card could not start the IPC message receive process. This typically indicates a memory problem or software error on the line card.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the line card. If the problem continues, 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.

`%IPCGRP-6-NOQLOOP: Unable to queue a received link-loop backplane ethernet keepalive.`

Explanation The line card cannot queue a received keepalive packet to the packet queue. This typically indicates a memory problem or software error on the line card.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, try removing and reinserting the line card. If the problem continues, 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.

`%IPCGRP-6-NOSLOT: Unknown slot number.`

Explanation The line card is unable to determine its slot number in the chassis. This message can appear during an OIR operation or during system initialization. This could indicate a transient error condition, or a potential hardware problem with the line card or chassis.

Recommended Action No action is needed as the line card reinitializes itself. If the problem persists, try removing and reinserting the line card. Also try moving the line card to another slot. If that corrects the problem, it could indicate a problem with that particular slot in the Cisco uBR10012 chassis.

`%IPCGRP-6-NOTBHLPR: The PRE wants to download a card image, but we're not a boothelper.`

Explanation The processor module is attempting to download an image to a line card, but the line card has refused the download because it is not running in the boothelper state.

Recommended Action Verify that you are running released software on the Cisco CMTS. Verify that the line card is a production version of the card. If so, reload the processor module with the **hw-module reset pre** command, or power cycle the router.

If the problem is with a Broadband Processing Engine (BPE) cable interface line card (Cisco uBR-MC16U/X, Cisco uBR-MC28U/X, Cisco uBR-MC5X20S/U), verify that you are running Cisco IOS Release 12.2(15)BC2 or later release on the Cisco CMTS.

If the problem persists, 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.

`%IPCGRP-6-RESTART: Restart OIR fsm due to [chars].`

Explanation The OIR finite state machine (FSM) is being restarted, because of the specified reason.

Recommended Action If this message occurs after an N+1 HCCP switchover, no action is needed as this is expected behavior. Otherwise, look at the console log for other system messages that could indicate a potential problem. Verify that you are running released software on the Cisco CMTS. If you have configured N+1 HCCP redundancy on the cable interfaces, and this message did not occur after a switchover, verify that you are running at least Cisco IOS Release 12.2(15)BC2 or later release.

`%IPCGRP-6-SLOTID: Slot ID is [dec]/[dec]`

Explanation This is slot ID of the line card.

Recommended Action No action is needed.

`%IPCGRP-3-SLOTPAR: Slot ID parity error.`

Explanation The slot ID or subslot ID for the line card that the line card received from the backplane Ethernet is invalid (either 0 or –1). This could indicate either a software error, or a potential hardware problem with the backplane slot or the line card.

Recommended Action Verify that you are running released software on the Cisco CMTS. Try removing and reinserting the line card. Try replacing the line card. Try moving the line card to another slot. If that corrects the problem, there could be a hardware problem with the original slot in the chassis.

If the problem persists, 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.

```
%IPCGRP-3-SYSCALL: System call for command [integer] (slot[integer]/[integer]) :
[chars] (Cause: [chars])
```

Explanation An error occurred with an IPC kernel system call on the specific card. If the specified error is a timeout error, this could indicate a possible hardware problem with that card, or it could also indicate a possible software error, such as memory corruption. This could also indicate a failure on the TCC+ card on a Cisco uBR10012 router.

Recommended Action Verify that you are using released software on the Cisco CMTS. If this problem occurred during an OIR or the line card, or during a **shutdown** or **no shutdown** of the card, verify that you are running at least Cisco IOS Release 12.2(11)BC2 or later. If possible, upgrade to the latest version of Cisco IOS software.

Also look in the console log for any other error messages. In particular, if any messages indicate a failure on the TCC+ card, the problem could be that the Cisco uBR10012 router does not have a working TCC+ card installed. Verify that at least one TCC+ card is installed in the chassis. If so, try replacing it.

If the error is a timeout error, verify that you are using a production version of the specified line card. If so, try replacing the specified card.

If the problem continues, 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.

```
%IPCGRP-6-UCODEVER: Reported microcode version, [dec].
```

Explanation This message reports the version of microcode that is running on the line card.

Recommended Action No action is needed.

```
%IPCGRP-6-UNKLCCMD: Received unknown command from CRE ([dec])
```

Explanation The line card received an unknown line card command. This typically indicates that the line card is not running the same Cisco IOS software release as the processor module, and that the PRE1 module is sending IPC messages that are not recognized by the line card.

Recommended Action Verify that you are running released software on the Cisco CMTS. If so, reload the line card using the **microcode reload** command or by removing and reinserting the line card.

```
%IPCGRP-6-UNKWOBJ: Unknown IPC object received, [dec]
```

Explanation An recognized or unsupported IPC object has been received. This typically indicates that the line card and processor module are not running the same releases of Cisco IOS software, and the card with the latest version of software is sending IPC messages that are not recognized by the other card.

Recommended Action Verify that you are running released software on the Cisco CMTS. If so, reload the line card using the **microcode reload** command or by removing and reinserting the line card.

```
%IPCGRP-6-UNKWOPCODE: Unknown IPC message opcode, [dec]
```

Explanation An IPC message was received with an unknown opcode. This typically indicates that the line card and processor module are not running the same releases of Cisco IOS software, and the card with the latest version of software is sending IPC messages that are not recognized by the other card.

Recommended Action Verify that you are running released software on the Cisco CMTS. If so, reload the line card using the **microcode reload** command or by removing and reinserting the line card.

```
%IPCGRP-6-UNKWSUBTYP: Unknown SET message subtype, [dec]
```

Explanation A SET type of IPC message was received with an unknown subtype. This typically indicates that the line card and processor module are not running the same releases of Cisco IOS software, and the card with the latest version of software is sending IPC messages that are not recognized by the other card.

Recommended Action Verify that you are running released software on the Cisco CMTS. If so, reload the line card using the **microcode reload** command or by removing and reinserting the line card.

MCU, MCUCLC, MCUFSM

The following system error messages concern the operation of the Cisco uBR-MC16U/X and Cisco uBR-MC28U/X cable interface line cards.

- MCU—These error message display information about the Cisco uBR-MC16U/X or Cisco uBR-MC28U/X cable interface card's hardware or initialization problems.
- MCUCLC—These error messages display information about errors that have occurred during the operation of the Cisco IOS software on the Cisco uBR-MC16U/X and Cisco uBR-MC28U/X cable interface card.
- MCUFSM—These error messages display information about unexpected events that have occurred with the finite state machine (FSM) that operates on the Cisco uBR-MC16U/X and Cisco uBR-MC28U/X cable interface card to control online insertion and removal (OIR) operations.

MCU

```
%MCU-1-CONFIGNOTETHER: Cannot configure any of the IPC ethernet interfaces
```

Explanation The internal Ethernet interfaces on the cable interface line card, which are used for interprocess communications (IPC) with the main processor, cannot be configured.

Recommended Action Remove and reinsert the specified cable interface line card. Verify that you are running released software on the CMTS. 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.

```
%MCU-1-DISCOVER: Cannot initialize bay [dec], shutting down bay
```

Explanation The Cisco CMTS router could not initialize the indicated backplane bay and is shutting down the bay to prevent possible hardware problems.

Recommended Action Remove and reinsert the Cisco uBR-MC16U/X or Cisco uBR-MC28U/X card. If the problem persists, reload the Cisco CMTS router.

```
%MCU-3-EREVENT: slot ([dec]):([chars])
```

Explanation The cable interface line card in the indicated slot experienced the indicated error event or failure.

Recommended Action Remove and reinsert the specified cable interface line card. Verify that you are running released software on the CMTS. 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.

```
%MCU-3-GENERAL: [chars]
```

Explanation The cable interface line card in the indicated slot experienced a general failure, as defined by the failure string.

Recommended Action Remove and reinsert the specified cable interface line card. Verify that you are running released software on the CMTS. 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.

```
%MCU-6-HWREV: Slot [dec]: HW revision is [dec]
```

Explanation An informational message that displays the current hardware revision for the Cisco uBR-MC16U/X or Cisco uBR-MC28U/X cable interface line card.

Recommended Action No action is needed.

```
%MCU-6-OLDHWREV: Slot [dec]: HW revision is below 1.8 - board should be upgraded
```

Explanation The Cisco uBR-MC16U/X or Cisco uBR-MC28U/X cable interface line card in the indicated slot has a pre-release hardware revision. The card must be at hardware revision 1.8 or above to be able to run current Cisco IOS software.

Recommended Action Contact your Cisco technical support representative to arrange for the Cisco uBR-MC28U/X card to be upgraded to the proper hardware revision.

```
%MCU-5-RESET: MCU port adapter was in slot [dec] was reset
```

Explanation The indicated cable interface line card was reset, either by a user manually resetting the card from the command-line interface (CLI), or by the system.

Recommended Action No action is needed.

MCUCLC

```
%MCUCLC-3-EREVENT: [chars]
```

Explanation The cable interface line card in the indicated slot experienced a general failure, as defined by the failure string.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%MCUCLC-6-PCIENBDISAB: NPE PCI data interface [[dec]]: [chars]
```

Explanation The network processing engine (NPE) PCI data interface has been enabled or disabled, as indicated.

Recommended Action No action is needed.

```
%MCUCLC-3-PCIANALYZE: PCI device ([dec]) initialization failed
```

Explanation The PCI device initialization failed on the cable interface line card. This typically indicates a system fault with the card.

Recommended Action Remove and reinsert the specified cable interface line card. Verify that you are running released software on the CMTS. If the problem persists, contact your Cisco technical support representative to arrange for the Cisco uBR-MC16U/X or Cisco uBR-MC28U/X card to be upgraded or replaced.

```
%MCUCLC-3-NOTMCU: PCI device ID seen as [hex], expected [hex]
```

Explanation The Cisco IOS software could not recognize the Sibyte chips on the cable interface line card. This could indicate a faulty or incomplete initialization of the cable interface line card.

Recommended Action Power down the Cisco CMTS router, remove and reinsert the cable interface line card, and reboot. If the message reoccurs, verify that you are running released software on the CMTS. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%MCUCLC-3-UNKEVENT: [chars]: [dec]
```

Explanation The Cisco IOS software received an unknown event from the cable interface line card. This could indicate that the Cisco IOS software release that is running on the cable interface line card is not the same release that is running on the Cisco CMTS router.

Recommended Action Verify that you are running released software on the CMTS. Remove and reinsert the cable interface line card to force it to reload its onboard Cisco IOS software. If the problem persists, 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.

MCUFSM

```
%MCUFSM-3-BADSLOT: Invalid slot [dec] in function [chars]
```

Explanation The cable interface line card received an invalid slot number as part of an interprocess communications message.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%MCUFSM-1-CARD_LOADING: Card in slot ([dec]) booting: [chars], size [dec] bytes,
version [hex], checksum [hex]
```

Explanation The indicated cable interface line card is loading and booting the indicated microcode software image. This typically should happen only during system initialization and during OIR of the card.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%MCUFSM-3-ENQFAIL: Enqueue of message failed slot ([dec]), major event ([dec])
```

Explanation The indicated cable interface line card could not enqueue an OIR message to the proper event queue, typically because of insufficient memory resources.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are running released software on the CMTS. 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.

`%MCUFSM-3-FSMEXECUTE: slot [dec]: fsm execution failed ([dec])`

Explanation The finite state machine that operates on the indicated cable interface line card encountered the general failure that is indicated by the failure string.

Recommended Action Verify that you are running released software on the CMTS. 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.

`%MCUFSM-3-GENERAL: [chars]`

Explanation The finite state machine operating in the software encountered the general failure indicated by the failure string.

Recommended Action Verify that you are running released software on the CMTS. 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.

`%MCUFSM-3-LOADEXIST: slot [dec]: previous download process`

Explanation A previous download process exists on the indicated cable interface line card, and a new download cannot start until this previous process terminates.

Recommended Action Remove and reinsert the indicated cable interface line card. Verify that you are running released software on the CMTS. 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.

`%MCUFSM-3-OPENERR: slot [dec]: failed to open file [chars]`

Explanation The cable interface line card failed to open the indicated microcode software file for download to the card.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%MCUFSM-3-UNKNOWN: card type is unknown for slot ([dec]) in [chars]
```

Explanation The OIR finite state machine could not identify the card that is in the indicated slot.

Recommended Action Verify that you are running released software on the CMTS. 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.

UBR7100, UBR7200, and UBR10000

This section lists the CMTS system error messages and DOCSIS error messages that are common to the Cisco uBR7100 series, Cisco uBR7200 series, and Cisco uBR10012 routers. Most of these error messages will appear on all CMTS platforms, but some error messages appear only for one or two platforms.

```
%UBR7100-6-ACTIVE
%UBR7200-6-ACTIVE
%UBR10000-6-ACTIVE: Cable clock [chars] reference active
```

Explanation The clock reference has become active.

Recommended Action No action is needed.

```
%UBR7100-5-AUTHFAIL
%UBR7200-5-AUTHFAIL
%UBR10000-5-AUTHFAIL: Authorization failed for Cable Modem [enet] on interface
[chars]
```

Explanation The registration of this modem has failed because of an invalid MIC string, or because the cable modem used a stale or spoofed DOCSIS configuration file.

Recommended Action Ensure that the shared secret that is in the configuration file matches the shared secret that is configured in the cable modem. If the shared secrets match, take action against the cable modem that is possibly spoofing, storing, and replaying its DOCSIS configuration file.

```
%UBR7100-3-AUTH_INVALID_INVALID_KEY_SEQUENCE_NUMBER
%UBR7200-3-AUTH_INVALID_INVALID_KEY_SEQUENCE_NUMBER
%UBR10000-3-AUTH_INVALID_INVALID_KEY_SEQUENCE_NUMBER:
<132>CMTS[DOCSIS]:<66030206> Auth Invalid - Invalid Key Sequence Number. CM Mac
Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because it presented an invalid key sequence number (KSN).

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_INVALID_MESSAGE_AUTHENTICATION_FAILURE
%UBR7200-3-AUTH_INVALID_MESSAGE_AUTHENTICATION_FAILURE
%UBR10000-3-AUTH_INVALID_MESSAGE_AUTHENTICATION_FAILURE:
<132>CMTS[DOCSIS]:<66030207> Auth Invalid - Message(Key Request) Authentication
Failure. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because it presented an invalid key request message. The cable modem is expected to reattempt authorization.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_INVALID_NO_INFORMATION
%UBR7200-3-AUTH_INVALID_NO_INFORMATION
%UBR10000-3-AUTH_INVALID_NO_INFORMATION: <132>CMTS[DOCSIS]:<66030202> Auth
Invalid - No Information. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because it did not present the required information in its request message. The cable modem is expected to reattempt authorization.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_INVALID_UNAUTHORIZED_CM
%UBR7200-3-AUTH_INVALID_UNAUTHORIZED_CM
%UBR10000-3-AUTH_INVALID_UNAUTHORIZED_CM: <132>CMTS[DOCSIS]:<66030203> Auth
Invalid - Unauthorized CM. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because this cable modem is not authorized to use the cable network. The cable modem should not attempt to reregister.

Recommended Action No action needed if this cable modem is correctly marked as unauthorized. Otherwise, check the provisioning software to make sure the MAC address for this cable modem is entered correctly.

```
%UBR7100-3-AUTH_INVALID_UNSOLICITED
%UBR7200-3-AUTH_INVALID_UNSOLICITED
%UBR10000-3-AUTH_INVALID_UNSOLICITED: <132>CMTS[DOCSIS]:<66030205> Auth Invalid -
Unsolicited. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because this cable modem sent an unsolicited request for authorization. The cable modem is expected to reattempt authorization.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_REJECT_NO_INFORMATION
%UBR7200-3-AUTH_REJECT_NO_INFORMATION
%UBR10000-3-AUTH_REJECT_NO_INFORMATION: <132>CMTS[DOCSIS]:<66030102> Auth Reject
- No Information. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because it did not present the required information in its request message. The cable modem is expected to reattempt authorization.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_REJECT_PERMANENT_AUTHORIZATION_FAILURE
%UBR7200-3-AUTH_REJECT_PERMANENT_AUTHORIZATION_FAILURE
%UBR10000-3-AUTH_REJECT_PERMANENT_AUTHORIZATION_FAILURE:
<132>CMTS[DOCSIS]:<66030108> Auth Reject - Permanent Authorization Failure. CM Mac
Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because the CMTS has permanently rejected this cable modem, instructing it not to attempt reauthorization. This could also occur because the cable modem attempted to register with an invalid manufacturer's digital certificate. The certificate could contain an invalid signature, or the current date and time are outside of the certificate's valid operating range.

Recommended Action Use the **show clock** on the CMTS to verify that the date and time on the CMTS are set correctly. If the date and time are not correct, use the **clock set** command to set it to the current date and time, and then use the **clock update-calendar** command to update the internal clock.

If the CMTS clock is correct, check that the cable modem contains a valid manufacturer's certificate. If necessary, upgrade the cable modem's software and reboot the cable modem. Verify that the cable modem was made from a known manufacturer and that the CMTS has a valid CA certificate for that manufacturer. Also verify that the cable modem is presenting a valid digital certificate.

Otherwise, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_REJECT_UNAUTHORIZED_CM
%UBR7200-3-AUTH_REJECT_UNAUTHORIZED_CM
%UBR10000-3-AUTH_REJECT_UNAUTHORIZED_CM: <132>CMTS[DOCSIS]:<66030103> Auth
Reject - Unauthorized CM. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because this cable modem is not authorized to use the cable network. The cable modem should not attempt to reregister.

Recommended Action No action needed if this cable modem is correctly marked as unauthorized. Otherwise, check the provisioning software to make sure the MAC address for this cable modem is entered correctly.

```
%UBR7100-3-AUTH_REJECT_UNAUTHORIZED_SAID
%UBR7200-3-AUTH_REJECT_UNAUTHORIZED_SAID
%UBR10000-3-AUTH_REJECT_UNAUTHORIZED_SAID: <132>CMTS[DOCSIS]:<66030104> Auth
Reject - Unauthorized SAID. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because it did not present a valid Security Association ID (SAID) in its request message. The cable modem is expected to reattempt authorization.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. If the Cisco CMTS is running Cisco IOS Release 12.2(8)BC1 or later release, and if this cable modem is running DOCSIS 1.0 software, verify that its DOCSIS configuration file includes option 17, Baseline Privacy Configuration settings. (For information on configuring the option 17 settings, see the Tech Note, *Auth Reject-Unauthorized SAID Error Messages and BPI Configuration Changes*, at the following URL:

http://www.cisco.com/en/US/tech/tk86/tk168/technologies_tech_note09186a0080094eb3.shtml

Otherwise, verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-AUTH_REJECT_TOD_NOT_ACQUIRED
%UBR7200-3-AUTH_REJECT_TOD_NOT_ACQUIRED
%UBR10000-3-AUTH_REJECT_TOD_NOT_ACQUIRED: <132>CMTS[DOCSIS]:<66030109> Auth
Reject - Time of Day not acquired. CM Mac Addr <[enet]>
```

Explanation The specified cable modem failed to register with BPI+ authorization because it did not acquire the current date and time from a Time-of-Day (ToD) server. The cable modem uses the current time to verify its BPI+ digital certificates.

Recommended Action Verify that the ToD server is online and operational. Also verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-BADARPDELETE
%UBR7200-3-BADARPDELETE
%UBR10000-3-BADARPDELETE: Tried to remove arp entry for [IP_address] that is not
dynamic
```

Explanation A request was made to delete a non-dynamic ARP entry, which typically means an IP address was being replaced by a new device. This in turn could indicate a possible spoofing attempt, in which a user is taking IP addresses that are normally assigned by the DHCP server and statically assigning them to their own CPE devices. This situation can also occur when a partial ARP entry exists for a cable modem (such as might happen when you ping a cable modem that was previously online but has since been shut down, or occasionally during an N+1 (1:n) HCCP switchover).

Recommended Action Look for a possible CMTS IP address spoofing attempt. Also verify that the DHCP server is not assigning the same IP address as both a statically and a dynamically assigned address. If this problem persists, try enabling either the **cable arp** command or the **cable source-verify dhcp** command, or both, on the cable interface.

```
%UBR7100-3-BADARPREPLY
%UBR7200-3-BADARPREPLY
%UBR10000-3-BADARPREPLY: Interface [chars], ARP reply from invalid source.
Expected SID=[dec], Actual SID=[dec]
```

Explanation The indicated cable interface received an ARP reply with an IP address that is associated with another cable interface. This can indicate possible IP address spoofing.

Recommended Action Look for evidence of a spoofing attempt. If this error occurs after a **clear arp** command is issued, verify that the **cable source-verify** command has been configured on the cable interface so that the ARP replies can be learned correctly.

```
%UBR7100-3-BADARPREQUEST
%UBR7200-3-BADARPREQUEST
%UBR10000-3-BADARPREQUEST: Interface [chars], ARP request from invalid source.
IP=[IP_address], MAC=[enet], Expected SID=[dec], Actual SID=[dec]
```

Explanation The indicated cable interface received an ARP request with an IP address that is associated with another cable interface. This can indicate possible IP address spoofing.

Recommended Action Look for evidence of a spoofing attempt. For more information, see the **cable source-verify** command.

```
%UBR7100-4-BADCFGFILE
%UBR7200-4-BADCFGFILE
%UBR10000-4-BADCFGFILE: Modem config file [chars] at [integer]: [chars]
```

Explanation The DOCSIS configuration file for the cable modem failed its CMTS MIC verification, either because the MIC is missing or because the CMTS MIC failed verification with the shared secret or secondary shared secrets that have been configured for the cable interface. This message will occur when the dynamic secret feature is enabled on the cable interface with the **cable dynamic-secret** command.

Recommended Action Verify that the DOCSIS configuration file for the cable modem has been created using the correct shared secret value. Also verify that the DHCP server is specifying the proper configuration file for this cable modem, and that the configuration file on the TFTP server is the correct one. If all of these are correct, check for a possible theft-of-service attempt by a user attempting to upload a modified DOCSIS configuration file into the operator's TFTP server.

```
%UBR10000-1-BADCLK: Cable Line Card [chars] reports Bad Clock Status for TCCplus
card in [dec]/[dec]
```

Explanation The Cisco uBR10012 PRE module received an error in the clock on the backplane from the TCC+ card in the indicated slot. This typically indicates that the primary TCC+ card encountered an error and was put into the maintenance state, and that the redundant TCC+ card has been activated and is now the primary TCC+ card.

Recommended Action Reinstall or replace the TCC+ card that is reporting the error. If the problem persists, 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.

```
%UBR7100-3-BADFFTSTATE
%UBR7200-3-BADFFTSTATE
%UBR10000-3-BADFFTSTATE: BCM3138 chip [dec] is in wrong state [dec], expected
state [dec]
```

Explanation Some cable interface line cards use the Broadcom BCM3138 burst receiver to perform a Fast Fourier Transform (FFT) for digital spectrum analysis, and the card should perform only one FFT operation at a time. This error message indicates that the indicated BCM3138 chip was not in the correct state for the current FFT operation, which theoretically should never happen. This is likely a software error, but it could also indicate a hardware fault in rare cases.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%UBR7100-3-BADFFTSTATE2
%UBR7200-3-BADFFTSTATE2
%UBR10000-3-BADFFTSTATE2: BCM3138 chip [dec] is not idle when it should be
```

Explanation Some cable interface line cards use the Broadcom BCM3138 burst receiver to perform a Fast Fourier Transform (FFT) for digital spectrum analysis, and the card should perform only one FFT operation at a time. This error message indicates that the indicated BCM3138 chip did not have data available when it signaled that data was available, which theoretically should never happen. This is likely a software error, but it could also indicate a hardware fault in rare cases.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%UBR7100-3-BADFFTINTERRUPT
%UBR7200-3-BADFFTINTERRUPT
%UBR10000-3-BADFFTINTERRUPT: BCM3138 chip [dec] dma interrupt error.
```

Explanation Some cable interface line cards use the Broadcom BCM3138 burst receiver to perform a Fast Fourier Transform (FFT) for digital spectrum analysis, and the card should perform only one FFT operation at a time. This error message indicates that the indicated BCM3138 chip was not idle while another chip was performing an FFT operation, which indicates a DMA interrupt error occurred. This is likely a software error, but it could also indicate a hardware fault in rare cases.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%UBR7100-3-BADIPSOURCE
%UBR7200-3-BADIPSOURCE
%UBR10000-3-BADIPSOURCE: Interface [chars], IP packet from invalid source.
IP=[IP_address], MAC=[enet], Expected SID=[dec], Actual SID=[dec]
```

Explanation The indicated cable interface received a packet with an IP address that is associated with another cable interface. This can be the result of a possible IP address spoofing attempt as it indicates that the CM or CPE device is using an IP address that was not properly assigned by the provider's DHCP servers.

Recommended Action Look for evidence of a spoofing attempt. For more information, see the **cable source-verify** command. Also verify that the CMTS is not using static ARP addresses, using the **arp** *ip-address mac-address* command, as this could cause problems if the IP address ever moves to another device.

```
%UBR7100-3-BADIPSOURCE_BUNDLE
%UBR7200-3-BADIPSOURCE_BUNDLE
%UBR10000-3-BADIPSOURCE_BUNDLE: Interface [chars], IP packet from invalid source.
IP=[IP_address], MAC=[enet], Expected Interface=[chars] SID=[dec], Actual
Interface=[chars] SID=[dec]
```

Explanation The indicated cable interface received a packet with an IP address that is associated with another cable interface bundle. This can be the result of a possible IP address spoofing attempt as it indicates that the CM or CPE device is using an IP address that was not properly assigned by the provider's DHCP servers.

Recommended Action Look for evidence of a spoofing attempt. For more information, see the **cable source-verify** command. Also verify that the CMTS is not using static ARP addresses, using the **arp** *ip-address mac-address* command, as this could cause problems if the IP address ever moves to another device.

```
%UBR7100-6-BADIPSOURCE_SUBNET
%UBR7200-6-BADIPSOURCE_SUBNET
%UBR10000-6-BADIPSOURCE_SUBNET: Interface [chars], IP packet from invalid source.
IP=[IP_address], MAC=[enet], Expected SID=[dec], Actual SID=[dec]
```

Explanation The indicated cable interface received a packet with an IP address that is associated with another cable interface subnet. This can be the result of a possible IP address spoofing attempt as it indicates that the CM or CPE device is using an IP address that was not properly assigned by the provider's DHCP servers. This can also occur if a CPE device fails to obtain an IP address through DHCP and defaults to the hardcoded IP address built into its operating system (usually this is an IP address in the 169.254.0.0 subnet).

Recommended Action Look for evidence of a spoofing attempt. For more information, see the **cable source-verify** command. If this is a CPE device, check that it is configured correctly to use DHCP addressing. If necessary, have the customer release and renew the IP address on the CPE device. Also verify that the CMTS is not using static ARP addresses, using the **arp** *ip-address mac-address* command, as this could cause problems if the IP address ever moves to another device.

```
%UBR7100-5-BADMNCSMSG
%UBR7200-5-BADMNCSMSG
%UBR10000-5-BADMNCSMSG: Invalid DOCSIS Message received from a Cable Modem for
interface [chars]
```

Explanation A cable modem sent a DOCSIS message that is invalid for this CMTS. This usually occurs because the cable modem is not DOCSIS-compliant.

Recommended Action Locate the cable modem that sent this message and replace it with a DOCSIS-compliant modem. Verify that the cable modem is using a valid DOCSIS configuration file.

```
%UBR7100-4-BAD_NETWORK_ACCESS_CONFIGURATION
%UBR7200-4-BAD_NETWORK_ACCESS_CONFIGURATION
%UBR10000-4-BAD_NETWORK_ACCESS_CONFIGURATION: <133>CMTS[DOCSIS]:<73010800>
Network Access has Invalid Parameter. CM Mac Addr <[enet]>
```

Explanation A registration request from the specified cable modem included an invalid value for the Network Access parameter. This parameter controls whether the CPE devices attached to the cable modem can access the cable network, and its only valid values can be either 0 (CPE devices are not allowed network access) or 1 (CPE devices are allowed to access the network).

Recommended Action Check the DOCSIS configuration file being used by this cable modem and ensure that the Network Access parameter is set to either 0 or 1. No other values are allowed.

```
%UBR7100-4-BAD_REGISTRATION
%UBR7200-4-BAD_REGISTRATION
%UBR10000-4-BAD_REGISTRATION: Cable modem [enet] on interface [chars] when [chars]
attempted re-registration with different QoS
```

Explanation The indicated cable modem sent a registration request, but the CMTS shows that a modem with this MAC address is already registered and online with a different QoS profile. This could occur if a user has hacked a cable modem to change its MAC address. This could also possibly occur after the CMTS performs an HCCP switchover of a cable interface, and a cable modem on that interface sent a registration request message during a loss-of-sync period.

Recommended Action If an HCCP switchover did occur, check the indicated cable modem for non-DOCSIS-compliant software. Otherwise, check for a possible theft-of-service attack where a user has hacked a cable modem to give it a different MAC address that is a duplicate of an existing modem.

```
%UBR10000-1-BADTCC: TCCplus card in [dec]/[dec] put under maintenance due to:
[chars]
```

Explanation The active TCC+ card in the indicated slot was put in maintenance mode.The redundant TCC+ card (if installed) has become the active, primary TCC+ card. Possible reasons for the card being put in maintenance mode include:

- Holdover rcvd by Active/Backup Card—Possibly a hardware fault.
- Bad Clock reported by CLC(s)—The cable interface line cards are reporting that the clock signal that is being received by the TCC+ card is invalid.
- TRU Loss of Sync—The TCC+ card has lost synchronization with its clock signal.

Recommended Action Reinstall or replace the TCC+ card that is reporting the error. If the problem persists, 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.

```
%UBR7100-4-BADTXOFFSET
%UBR7200-4-BADTXOFFSET
%UBR10000-4-BADTXOFFSET: Bad timing offset [dec] detected for cable modem [enet].
```

Explanation The cable modem is not using the correct starting offset during initial ranging, causing a zero, negative timing offset to be recorded by the CMTS for this modem. The CMTS internal algorithms that rely on the timing offset parameter will not analyze any modems that do not use the correct starting offset. The modems may not be able to function, depending on their physical location on the cable plant.

Recommended Action Locate the cable modem based on the MAC address and report the initial timing offset problem to the cable modem vendor. Replace the unit with a DOCSIS-compliant cable modem.

```
%UBR7100-3-BADUSPORT
%UBR7200-3-BADUSPORT
%UBR10000-3-BADUSPORT: Interface [chars] Port U[dec] invalid, highest port number
is U[dec]
```

Explanation The specified upstream port number was invalid.

Recommended Action Reenter the command using a valid upstream port number. Upstream port numbers start with 0 and will end with the value given in this message.

```
%UBR7100-4-BPI_WARNING
%UBR7200-4-BPI_WARNING
%UBR10000-4-BPI_WARNING: [chars]: SID=[dec], KeySeq=[dec], Cable Interface
<[chars]>
```

Explanation The CMTS received an invalid traffic exchange key (TEK) key sequence value from a cable modem on the specified cable interface. This could occur if one or more MAC-layer messages have been lost, if the cable modem is not properly configured for BPI operations, or if a software error has occurred.

Recommended Action If this message occurs only occasionally, it can be ignored. Otherwise, check that the cable modem is using a proper DOCSIS configuration file. This message can also appear if the cable modem is not running DOCSIS-certified software, particularly if the error message indicates that an invalid TEK was received from the cable modem. Verify that the cable modem is running current software that conforms to the DOCSIS standard.

If this message persists, 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-3-BRIDGE_DELETE: Interface [chars], error in deleting address [dec] from
host tables
```

Explanation An internal software error occurred during CMTS tables management. This error can occur occasionally if a CPE device has been statically assigned the same IP address as another device.

Recommended Action Verify that all CPE devices are assigned the proper IP addresses. Otherwise, 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.

```
%UBR7100-3-BURSTINUSE
%UBR7200-3-BURSTINUSE
%UBR10000-3-BURSTINUSE: Can not remove Burst Profile. Burst Profile is in use
```

Explanation Because the currently defined modulation profiles use the specified burst profile, the burst profile cannot be removed.

Recommended Action Remove any modulation profiles that use this burst profile and reenter the command.

```
%UBR7100-3-CHASSIS
%UBR7200-3-CHASSIS
%UBR10000-3-CHASSIS: Unknown chassis model.
```

Explanation Data stored in the midplane is defective or incomplete.

Recommended Action Contact your Cisco technical support representative to update your system.

```
%UBR7100-5-CLASSFAIL
%UBR7200-5-CLASSFAIL
%UBR10000-5-CLASSFAIL: Registration failed for Cable Modem [enet] on interface
[chars][chars]: [chars]
```

Explanation The registration of the specified modem has failed because the specified reason. Common reasons for seeing this error message would be an invalid or unsupported class of service (CoS) setting, or the upstream port would be oversubscribed if this modem came online.

Recommended Action If the reason given for the failure indicates an invalid CoS setting, ensure that the CoS fields in the modem's DOCSIS configuration file are set correctly. If the problem is that the upstream is oversubscribed, look at how the **cable upstream admission-control** command has been configured for the upstream, and change the configuration if needed. If the problem persists, check for a possible theft-of-service attack.

```
%UBR7100-3-CM_CERTIFICATE_ERROR
%UBR7200-3-CM_CERTIFICATE_ERROR
%UBR10000-3-CM_CERTIFICATE_ERROR: <132>CMTS[DOCSIS]:<66030111> CM Certificate
Error. CM Mac Addr <[enet]>
```

Explanation The specified cable modem presented an invalid BPI+ CM certificate during registration.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and contains valid X.509 digital certificates. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-CM_CERTIFICATE_FORMAT_ERROR
%UBR7200-3-CM_CERTIFICATE_FORMAT_ERROR
%UBR10000-3-CM_CERTIFICATE_FORMAT_ERROR: <133>CMTS[DOCSIS]: CM Certificate Format
Error
```

Explanation The specified cable modem presented an invalid BPI+ CM certificate during registration. The format of the certificate does not match that specified in the BPI+ specification.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and contains valid X.509 digital certificates. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-CM_CERTIFICATE_SELF_VERFICATION_ERROR
%UBR7200-3-CM_CERTIFICATE_SELF_VERFICATION_ERROR
%UBR10000-3-CM_CERTIFICATE_SELF_VERFICATION_ERROR: <133>CMTS[DOCSIS]:<0> CM
Certificate Self-Verification Error
```

Explanation The specified cable modem presented an invalid BPI+ CM certificate during registration. The certificate cannot be successfully verified.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and contains valid X.509 digital certificates. If the problem persists, use the **show interface cable key sid** and **show interface cable key mac** commands to collect information about the cable modem with the problem. You can also turn on BPI+ debugging using the **debug cable privacy** and **debug cable bpi** commands.

```
%UBR7100-3-CM_INCONST
%UBR7200-3-CM_INCONST
%UBR10000-3-CM_INCONST: CM state inconsistency [enet] (msgp [enet]) with sid [dec]
([dec]) on hwidb [chars]
```

Explanation The CMTS received an initialization request for a cable modem that is already online. Typically, this means that the cable interface card and PRE module have different MAC-layer states for this particular cable modem, probably because of interprocess communication (IPC) messages that were lost during an HCCP redundancy switchover from one cable interface card to another. If you are also seeing %UBR10K-3-QUEUEFULL error messages, this means that the management queue on the CMTS became full and some messages were dropped, and the CMTS could have missed the messages informing it that one or more CMs changed state or went offline.

Recommended Action No action is needed because the CMTS will synchronize its internal databases by marking the cable modem offline, and then the cable modem will automatically rerange and reregister after a short timeout period. If the problem repeats, 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.

```
%UBR7100-4-CMLOCKED
%UBR7200-4-CMLOCKED
%UBR10000-4-CMLOCKED: Cable Modem [enet] in [char] attempted theft of service
```

Explanation The cable modem's DOCSIS configuration file did not contain a Message Integrity Check (MIC) value that corresponds with the proper dynamic shared secret that was used to encode it. The CMTS has therefore assigned a restrictive quality of service (QoS) configuration to this cable modem to limit its access to the network. The CMTS has also locked the cable modem, so that the modem must be offline for 24 hours before it will be permitted reregister and obtain normal service (assuming it is DOCSIS-compliant and using a valid DOCSIS configuration file).

Recommended Action This error message appears when the **cable dynamic-secret lock** command has been applied to a cable interface to enable the dynamic shared secret feature for the DOCSIS configuration files on that cable interface. The cable modem has been allowed to register and come online, but with a QoS configuration that is limited to a maximum rate of 10 kbps for both the upstream and downstream flows. Check to ensure that this cable modem is not running old software that caches the previously-used configuration file. Also check for a possible theft-of-service attempt

by a user attempting to download a modified DOCSIS configuration file from a local TFTP server. The CM cannot reregister until it has been offline, without attempting to register, for 24 hours, or you have manually cleared the lock using the **clear cable modem lock** command.

```
%UBR7100-4-CMMARKED
%UBR7200-4-CMMARKED
%UBR10000-4-CMMARKED: Cable Modem [enet] in [chars] attempted theft of service
```

Explanation The cable modem's DOCSIS configuration file did not contain a Message Integrity Check (MIC) value that corresponds with the proper dynamic shared secret that was used to encode it. The CMTS has allowed this modem to register and come online, but has marked it in the **show cable modem** displays with an exclamation point (!) so that the situation can be investigated.

Recommended Action This error message appears when the **cable dynamic-secret mark** command has been applied to a cable interface to enable the dynamic shared secret feature for the DOCSIS configuration files on that cable interface. Check to ensure that this cable modem is not running old software that caches the previously-used configuration file. Also check for a possible theft-of-service attempt by a user attempting to download a modified DOCSIS configuration file from a local TFTP server.

```
%UBR7100-6-CMMOVED
%UBR7200-6-CMMOVED
%UBR10000-6-CMMOVED: Cable modem [enet] has been moved from interface [chars] to
interface [chars].
```

Explanation The cable modem has been detected ranging on a new interface, indicating that it has been moved from one interface to the new interface.

Recommended Action No action is needed.

```
%UBR7100-4-CMNOPRIMSF
%UBR7200-4-CMNOPRIMSF
%UBR10000-4-CMNOPRIMSF: CM [enet] does not have any primary service flows
```

Explanation This cable modem has no primary service flows, which will prevent it from communicating on the cable network.

Recommended Action No action is needed if the cable modem continues the registration process and successfully registers. Otherwise, reboot the cable modem. If the problem persists, verify that the DOCSIS configuration file being used by the cable modem is valid. If necessary, replace the cable modem with a known working cable modem.

```
%UBR7100-3-CONFIG
%UBR7200-3-CONFIG
%UBR10000-3-CONFIG: Exceeds [dec] [chars]
```

Explanation The total bandwidth of fast and medium bandwidth port adapters exceeds the rated capacity of this system.

Recommended Action Refer to the configuration guidelines for the maximum allowed high and medium bandwidth port adapters for the system.

```
%UBR7100-6-CONFIG_EXIT
%UBR7200-6-CONFIG_EXIT
%UBR10000-6-CONFIG_EXIT: Exiting config mode by [chars] since Port Adapter in slot
[dec] removed
```

Explanation The user was using CLI commands to configure a port adapter card or cable interface line card, at the same time that the card was removed from the system. This message could also appear if the user was configuring a Broadband Processing Engine, such as the Cisco uBR-MC28U/X, at the same time that the card was reset. Because the configuration was interrupted and the card no longer exists in the system, the Cisco IOS software terminated the configuration mode.

Recommended Action Reinsert the port adapter card or cable interface line card, and reenter the configuration commands.

```
%UBR7100-4-COOKIE
%UBR7200-4-COOKIE
%UBR10000-4-COOKIE: Corrupt or missing MAC address cookie using random base [enet]
```

Explanation Data stored in the midplane is defective.

Recommended Action Contact your Cisco technical support representative to update your system.

```
%UBR7100-4-COS_INVALID_ID_OUT_OF_RANGE
%UBR7200-4-COS_INVALID_ID_OUT_OF_RANGE
%UBR10000-4-COS_INVALID_ID_OUT_OF_RANGE: <133>CMTS[DOCSIS]:<73011100> Bad Class
of Service. Invalid Class ID or out of range. CM Mac Addr <[enet]>
```

Explanation The specified cable modem requested a class of service (CoS) that either does not exist or the Class ID is outside of the valid range of 1 through 16.

Recommended Action Verify that the DOCSIS configuration file being used by the cable modem contains valid CoS information.

```
%UBR7100-4-COS_UNSUPPORTED_CLASS
%UBR7200-4-COS_UNSUPPORTED_CLASS
%UBR10000-4-COS_UNSUPPORTED_CLASS: <133>CMTS[DOCSIS]:<7301100> Bad Class of
Service- Unsupported class. CM Mac Addr <[enet]>
```

Explanation The specified cable modem could not register because it requested an unsupported class of service (CoS).

Recommended Action Verify that the DOCSIS configuration file being used by the cable modem contains valid CoS information.

```
%UBR7100-0-CPUCARD
%UBR7200-0-CPUCARD
%UBR10000-0-CPUCARD: CMTS([dec]/[dec]), Init failed, CSR[dec]=[hex].
```

Explanation A hardware failure involving the line card has occurred.

Recommended Action Replace the defective line card.

```
%UBR7200-3-DBDSPDEAD
%UBR10000-3-DBDSPDEAD: AWACS Slot [dec] is dead
```

Explanation The digital signal processor (DSP) on the daughter card of the Cisco uBR-MC16S cable interface line card has paused or stopped.

Recommended Action Reload the image. If this message recurs, replace the defective daughter card.

```
%UBR7200-6-DBDSPDOWNLOADDONE
%UBR10000-6-DBDSPDOWNLOADDONE: Downloading dsp code completed
```

Explanation The downloading of the digital signal processor (DSP) code on the daughter card of the Cisco uBR-MC16S cable interface line card has been completed.

Recommended Action No action is needed.

```
%UBR7200-3-DBDSPDOWNLOADERR1
%UBR10000-3-DBDSPDOWNLOADERR1: DSP FAILED TO RESPOND TO INIT_DOWNLOAD CMD.
```

Explanation The download to the digital signal processor (DSP) daughter card on the Cisco uBR-MC16S cable interface line card has failed to initiate.

Recommended Action Reload the image. If this message recurs, replace the defective daughter card.

```
%UBR7200-3-DBDSPDOWNLOADERR2
%UBR10000-3-DBDSPDOWNLOADERR2: Failed downloading.
```

Explanation The download to the digital signal processor (DSP) daughter card on the Cisco uBR-MC16S cable interface line card has failed. Possible causes are corrupted data or a timeout during the download.

Recommended Action Reload the image. If this message recurs, replace the defective daughter card.

```
%UBR7200-3-DBDSPDOWNLOADERR3
%UBR10000-3-DBDSPDOWNLOADERR3: FAILED DOWNLOADING OF DSP FW DUE TO CHECKSUM
FAILURE.
```

Explanation The last step of the digital signal processor (DSP) download on the daughter card of the Cisco uBR-MC16S cable interface line card has failed because the checksum of the downloaded code does not match the proper value.

Recommended Action Reload the image. If this message recurs, replace the defective daughter card.

```
%UBR7200-3-DBDSPDOWNLOADPASS1
%UBR10000-3-DBDSPDOWNLOADPASS1: INIT DOWNLOAD OF DSP F/W PASS.
```

Explanation The digital signal processor (DSP) code has successfully started to download to the daughter card on the Cisco uBR-MC16S cable interface line card.

Recommended Action No action is needed.

```
%UBR7200-3-DBDSPDOWNLOADPASS2
%UBR10000-3-DBDSPDOWNLOADPASS2: DOWNLOAD OF DSP F/W SUCCESS.
```

Explanation The digital signal processor (DSP) code was successfully downloaded to the daughter card on the Cisco uBR-MC16S cable interface line card.

Recommended Action No action is needed.

```
%UBR7200-3-DBDSPDOWNLOADPASS3
%UBR10000-3-DBDSPDOWNLOADPASS3: END DOWNLOAD OF DSP F/W SUCCESS.
```

Explanation The daughter card on the Cisco uBR-MC16S cable interface line card verified the checksum on the digital signal processor (DSP) code that was downloaded to it and has begun initializing itself with the new code.

Recommended Action No action is needed.

```
%UBR7200-6-DBDSPDOWNLOADSTART
%UBR10000-6-DBDSPDOWNLOADSTART: Downloading dsp code initiated
```

Explanation The digital signal processor (DSP) code has started to download on the daughter card on the Cisco uBR-MC16S cable interface line card.

Recommended Action No action is needed.

```
%UBR7200-3-DBDSPERR1
%UBR10000-3-DBDSPERR1: DSP SRAM failed
```

Explanation The daughter card on the Cisco uBR-MC16S cable interface line card has failed because of memory problems.

Recommended Action Replace the defective daughter card.

```
%UBR7200-3-DBDSPERR2
%UBR10000-3-DBDSPERR2: DSP SRAM semaphore failed
```

Explanation A hardware failure involving the daughter card on the Cisco uBR-MC16S cable interface line card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7200-3-DBDSPERR3
%UBR10000-3-DBDSPERR3: DSP side dual-port SRAM failed
```

Explanation A hardware failure involving the daughter card on the Cisco uBR-MC16S cable interface line card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7200-3-DBDSPERR4
%UBR10000-3-DBDSPERR4: DSP FLASH memory failed
```

Explanation A hardware failure involving the daughter card on the Cisco uBR-MC16S cable interface line card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7200-3-DBDSPERR5
%UBR10000-3-DBDSPERR5: DSP failed to respond to Host Handshake
```

Explanation The digital signal processor (DSP) on the daughter card on the Cisco uBR-MC16S cable interface line card successfully initialized, but a hardware failure occurred during the initialization routines with the main card.

Recommended Action Replace the defective daughter card.

```
%UBR7200-3-DBDSPERR6
%UBR10000-3-DBDSPERR6: Switching to backup dsp image failed
```

Explanation A hardware failure involving the daughter card on the Cisco uBR-MC16S cable interface line card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7200-3-DBDSPERR7
%UBR10000-3-DBDSPERR7: Switching again to regular dsp image failed
```

Explanation A hardware failure has corrupted the digital signal processor (DSP) code on the daughter card on the Cisco uBR-MC16S cable interface line card.

Recommended Action Reboot the Cisco uBR-MC16S cable interface line card. If the problem persists, replace the defective daughter card.

```
%UBR7200-3-DBDSPIDERR
%UBR10000-3-DBDSPIDERR: DSP id read [hex],expect [hex]
```

Explanation A hardware failure involving the daughter card on the Cisco uBR-MC16S cable interface line card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7200-5-DBDSPRECOVER1
%UBR10000-5-DBDSPRECOVER1: Trying to switch to backup dsp image
```

Explanation The cable line card is attempting to recover the digital signal processor (DSP) by using the backup image.

Recommended Action No action is needed.

```
%UBR7200-5-DBDSPRECOVER2
%UBR10000-5-DBDSPRECOVER2: Switching to backup dsp image succeeded
```

Explanation The cable modem has successfully switched to the backup digital signal processor (DSP) image.

Recommended Action No action is needed.

```
%UBR7200-5-DBDSPRECOVER3
%UBR10000-5-DBDSPRECOVER3: Recovering and switching back to regular dsp image
succeeded
```

Explanation The digital signal processor (DSP) recovery using the backup image has succeeded. The Cisco uBR-MC16S cable interface line card is now using the regular DSP image.

Recommended Action No action is needed.

```
%UBR7200-5-DBDSPUP
%UBR10000-5-DBDSPUP: Handshake DSP is successful after [dec] ms delay
```

Explanation The digital signal processor (DSP) on the Cisco uBR-MC16S cable interface line card is up and running.

Recommended Action No action is needed.

```
%UBR7200-6-DBDSPVERSION
%UBR10000-6-DBDSPVERSION: Current DSP version: [dec], DSP flash version: [dec]
```

Explanation This message displays the current code version and the version with which the digital signal processor (DSP) used to boot up (Flash version).

Recommended Action No action is needed.

```
%UBR7100-3-DBFPGADLERR
%UBR7200-3-DBFPGADLERR
%UBR10000-3-DBFPGADLERR: [chars]
```

Explanation The specific download error occurred on the XILINK FPGA gate array. This could indicate a transmission error occurred, or it could indicate a hardware fault.

Recommended Action Reload the software image. If the failure continues, replace the defective line card.

```
%UBR7100-3-DBFPGAERR
%UBR7200-3-DBFPGAERR
%UBR10000-3-DBFPGAERR: XILINX not up, reset reg is [hex]
```

Explanation A hardware failure involving the daughter card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7100-3-DBPLX9050ERR
%UBR7200-3-DBPLX9050ERR
%UBR10000-3-DBPLX9050ERR: Plx9050 id read [hex],expect [hex]
```

Explanation A hardware failure involving the daughter card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7100-3-DBPLX9080ERR
%UBR7200-3-DBPLX9080ERR
%UBR10000-3-DBPLX9080ERR: Plx9080 id read [hex],expect [hex]
```

Explanation A hardware failure involving the daughter card has occurred.

Recommended Action Replace the defective daughter card.

```
%UBR7100-4-DCC_ACK_NOT_RECV
%UBR7200-4-DCC_ACK_NOT_RECV
%UBR10000-4-DCC_ACK_NOT_RECV: <133>CMTS[DOCSIS]:<67040100> DCC-ACK not received
```

Explanation The CM reports that it did not receive a Dynamic Channel Change acknowledge (DCC-ACK) message from the CMTS, which should have sent it to acknowledge the cable modem's DCC response (DCC-RSP) message.

Recommended Action No action is needed. If this problem persists with a single cable modem, verify that this cable modem is DOCSIS 1.1-compliant. If this problem persists with multiple cable modems, the DCC_ACK messages might be getting lost due to noise or other RF plant issues.

```
%UBR7100-4-DCC_ACK_REJ_AUTHENTICATION_FAILURE
%UBR7200-4-DCC_ACK_REJ_AUTHENTICATION_FAILURE
%UBR10000-4-DCC_ACK_REJ_AUTHENTICATION_FAILURE: <133>CMTS[DOCSIS]:<67040400>
DCC-ACK rejected authentication failure
```

Explanation The CMTS sent a Dynamic Channel Change acknowledge (DCC-ACK) message to the cable modem, which rejected it with a confirmation code of reject-authentication-failure(11) because the message contained an invalid HMAC-digest or Message Integrity Check (MIC) value.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_ACK_REJ_MSG_SYNTAX_ERROR
%UBR7200-4-DCC_ACK_REJ_MSG_SYNTAX_ERROR
%UBR10000-4-DCC_ACK_REJ_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<67040500> DCC-ACK
rejected message syntax error
```

Explanation The CMTS sent a Dynamic Channel Change acknowledge (DCC-ACK) message to the cable modem, which rejected it with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_ACK_REJ_UNKNOWN_TRANSACTION_ID
%UBR7200-4-DCC_ACK_REJ_UNKNOWN_TRANSACTION_ID
%UBR10000-4-DCC_ACK_REJ_UNKNOWN_TRANSACTION_ID: <133>CMTS[DOCSIS]:<67040300>
DCC-ACK rejected unknown transaction ID
```

Explanation The CMTS sent a Dynamic Channel Change acknowledge (DCC-ACK) message to the cable modem, which rejected it with a confirmation code of reject-unknown-transaction-id(10) because the cable modem did not recognize its Transaction ID as belonging to a transaction currently being processed.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_ACK_REJ_UNSPECIFIED_REASON
%UBR7200-4-DCC_ACK_REJ_UNSPECIFIED_REASON
%UBR10000-4-DCC_ACK_REJ_UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<67040200> DCC-ACK
rejected unspecified reason
```

Explanation The CMTS sent a Dynamic Channel Change acknowledge (DCC-ACK) to the cable modem, which rejected it with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DCC_REJ_AUTHENTICATION_FAILURE
%UBR7200-4-DCC_REJ_AUTHENTICATION_FAILURE
%UBR10000-4-DCC_REJ_AUTHENTICATION_FAILURE: <133>CMTS[DOCSIS]:<67021100> DCC
rejected authentication failure
```

Explanation The Dynamic Channel Change request (DCC-REQ) has been rejected with a confirmation code of reject-authentication-failure(11) because the message contained an invalid HMAC-digest or Message Integrity Check (MIC) value.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_CLASSIFIER_NOT_FOUND
%UBR7200-4-DCC_REJ_CLASSIFIER_NOT_FOUND
%UBR10000-4-DCC_REJ_CLASSIFIER_NOT_FOUND: <133>CMTS[DOCSIS]:<67021300> DCC
rejected classifier not found
```

Explanation The Dynamic Channel Change request (DCC-REQ) has been rejected with a confirmation code of reject-classifier-not-found(14) because the requested packet classifier ID is invalid or does not exist.

Recommended Action Reissue the command with a valid packet classifier ID. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_DUPLICATE_REF_ID_INDEX
%UBR7200-4-DCC_REJ_DUPLICATE_REF_ID_INDEX
%UBR10000-4-DCC_REJ_DUPLICATE_REF_ID_INDEX: <133>CMTS[DOCSIS]:<67021500> DCC
rejected duplicate DCC Request reference-ID or index in message
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-duplicate-reference-ID-or-index-in-message(18) because the message used a service flow reference, classifier reference, service flow ID (SFID), or classifier ID twice in an illegal way.

Recommended Action Reissue the command with a valid service flow. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_MSG_SYNTAX_ERROR
%UBR7200-4-DCC_REJ_MSG_SYNTAX_ERROR
%UBR10000-4-DCC_REJ_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<67021700> DCC rejected
message syntax error
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Reissue the command with a valid DCC-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_MSG_TOO_BIG
%UBR7200-4-DCC_REJ_MSG_TOO_BIG
%UBR10000-4-DCC_REJ_MSG_TOO_BIG: <133>CMTS[DOCSIS]:<67021800> DCC rejected
message too big
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-message-too-big(206) because the message needed to respond to the request would exceed the maximum allowable length.

Recommended Action Reissue the command with a valid DCC-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_MULTIPLE_ERRORS
%UBR7200-4-DCC_REJ_MULTIPLE_ERRORS
%UBR10000-4-DCC_REJ_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<67021200> DCC rejected
multiple errors
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-multiple-errors(13) because the request message had multiple errors in it.

Recommended Action Reissue the command with a valid DCC-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_PARAMETER_INVALID_CONTEXT
%UBR7200-4-DCC_REJ_PARAMETER_INVALID_CONTEXT
%UBR10000-4-DCC_REJ_PARAMETER_INVALID_CONTEXT: <133>CMTS[DOCSIS]:<67021600> DCC
rejected parameter invalid for context
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-parameter-invalid-for-context(23) because the message contained at least one parameter that was invalid for the TLV in which it was used.

Recommended Action Reissue the command with a valid DCC-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_PERMANENT_DCC_NOT_SUPPORTED
%UBR7200-4-DCC_REJ_PERMANENT_DCC_NOT_SUPPORTED
%UBR10000-4-DCC_REJ_PERMANENT_DCC_NOT_SUPPORTED: <133>CMTS[DOCSIS]:<67020800>
DCC rejected permanent - DCC not supported
```

Explanation The cable modem has permanently rejected the Dynamic Channel Change request (DCC-REQ) with a confirmation code of reject-permanent/reject-admin(4) because it does not support dynamic channel changes.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. If this cable modem is running DOCSIS 1.1 software, verify that its DCC Support parameter is set to 1 to enable the DCC feature.

```
%UBR7100-4-DCC_REJ_PHS_RULE_NOT_FOUND
%UBR7200-4-DCC_REJ_PHS_RULE_NOT_FOUND
%UBR10000-4-DCC_REJ_PHS_RULE_NOT_FOUND: <133>CMTS[DOCSIS]:<67021400> DCC
rejected PHS rule not found
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-PHS-rule-not-found(16) because the message specified a service flow ID and classifier ID combination for which no PHS rule exists.

Recommended Action Reissue the command with valid parameters. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_REQUIRED_PARAMETER_NOT_PRESENT
%UBR7200-4-DCC_REJ_REQUIRED_PARAMETER_NOT_PRESENT
%UBR10000-4-DCC_REJ_REQUIRED_PARAMETER_NOT_PRESENT: <133>CMTS[DOCSIS]:<67021000>
DCC rejected required parameter not present
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-required-parameter-not-present(8) because at least one required parameter was not present in the message.

Recommended Action Reissue the command with all required parameters. In particular, if BPI+ is being used, specify a proper key sequence number and HMAC-digest value. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_SRV_FLOW_NOT_FOUND
%UBR7200-4-DCC_REJ_SRV_FLOW_NOT_FOUND
%UBR10000-4-DCC_REJ_SRV_FLOW_NOT_FOUND: <133>CMTS[DOCSIS]:<67020900> DCC
rejected service flow not found
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-service-flow-not-found(6) because the requested service flow does not exist.

Recommended Action Reissue the command with a valid service flow. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REJ_UNSPECIFIED_REASON
%UBR7200-4-DCC_REJ_UNSPECIFIED_REASON
%UBR10000-4-DCC_REJ_UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<67020700> DCC
rejected unspecified reason
```

Explanation The Dynamic Channel Change request (DCC-REQ) was rejected with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DCC_REQ_ABORT_NO_ACQ_NEW_DWSTREAM_CHANNEL
%UBR7200-4-DCC_REQ_ABORT_NO_ACQ_NEW_DWSTREAM_CHANNEL
%UBR10000-4-DCC_REQ_ABORT_NO_ACQ_NEW_DWSTREAM_CHANNEL:
<133>CMTS[DOCSIS]:<67020400> DCC aborted unable to acquire new downstream channel
```

Explanation The cable modem has aborted the Dynamic Channel Change request (DCC-REQ) because it could not range on the new downstream channel that was specified in the DCC-REQ message. The cable modem will return to its original downstream channel.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS. Investigate the downstream for possible noise ingress or other RF plant problems.

```
%UBR7100-4-DCC_REQ_ABORT_NO_COMM_NEW_UPSTREAM_CHANNEL
%UBR7200-4-DCC_REQ_ABORT_NO_COMM_NEW_UPSTREAM_CHANNEL
%UBR10000-4-DCC_REQ_ABORT_NO_COMM_NEW_UPSTREAM_CHANNEL:
<133>CMTS[DOCSIS]:<67020600> DCC aborted unable to communicate on new upstream
channel
```

Explanation The cable modem has aborted the Dynamic Channel Change request (DCC-REQ) because it could not acquire the new upstream channel that was specified in the DCC-REQ message. The cable modem returns to its original upstream channel.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS. Investigate for possible noise ingress or other RF plant problems.

```
%UBR7100-4-DCC_REQ_ABORT_NO_UCD_NEW_UPSTREAM_CHANNEL
%UBR7200-4-DCC_REQ_ABORT_NO_UCD_NEW_UPSTREAM_CHANNEL
%UBR10000-4-DCC_REQ_ABORT_NO_UCD_NEW_UPSTREAM_CHANNEL:
<133>CMTS[DOCSIS]:<67020500> DCC aborted no UCD for new upstream channel
```

Explanation The Dynamic Channel Change request (DCC-REQ) was cancelled because no Upstream Channel Descriptor (UCD) was supplied for a new upstream channel.

Recommended Action Reissue the command with a valid UCD or without specifying an upstream channel change. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_REQ_ARRIVE_NEW
%UBR7200-4-DCC_REQ_ARRIVE_NEW
%UBR10000-4-DCC_REQ_ARRIVE_NEW: <133>CMTS[DOCSIS]:<67020300> DCC arrive new
```

Explanation The Dynamic Channel Change request (DCC-REQ) has been logged with a confirmation code of arrive(181) to indicate that the cable modem has performed the channel change and has arrived at the new channel.

Recommended Action No action is needed.

```
%UBR7100-4-DCC_REQ_DEPART_OLD
%UBR7200-4-DCC_REQ_DEPART_OLD
%UBR10000-4-DCC_REQ_DEPART_OLD: <133>CMTS[DOCSIS]:<67020200> DCC depart old
```

Explanation The Dynamic Channel Change request (DCC-REQ) has been logged with a confirmation code of depart(180) to indicate that the cable modem is on the old channel and is about to jump to the new channel.

Recommended Action No action is needed.

```
%UBR7100-4-DCC_REQ_REJ_ALREADY
%UBR7200-4-DCC_REQ_REJ_ALREADY
%UBR10000-4-DCC_REQ_REJ_ALREADY: <133>CMTS[DOCSIS]:<67020100> DCC rejected
already there
```

Explanation The Dynamic Channel Change request (DCC-REQ) has been rejected with a confirmation code of reject-already-there(182) because the CMTS has asked the cable modem to move to a channel that it is already using.

Recommended Action No action is needed.

```
%UBR7100-4-DCC_RSP_NOT_RCV_NEW_CHANNEL
%UBR7200-4-DCC_RSP_NOT_RCV_NEW_CHANNEL
%UBR10000-4-DCC_RSP_NOT_RCV_NEW_CHANNEL: <133>CMTS[DOCSIS]:<67030200> DCC-RSP
not received on new channel
```

Explanation The CMTS has not received a Dynamic Channel Change response (DCC-RSP) message from the cable modem on the new upstream channel.

Recommended Action No action is needed if the cable modem was instructed to reinitialize its MAC interface, in which case it will not send a DCC-RSP message. Otherwise, Verify that the cable modem is running DOCSIS 1.1-certified software.

```
%UBR7100-4-DCC_RSP_NOT_RCV_OLD_CHANNEL
%UBR7200-4-DCC_RSP_NOT_RCV_OLD_CHANNEL
%UBR10000-4-DCC_RSP_NOT_RCV_OLD_CHANNEL: <133>CMTS[DOCSIS]:<67030100> DCC-RSP
not received on old channel
```

Explanation The CMTS has not received a Dynamic Channel Change response (DCC-RSP) message from the cable modem on the old upstream channel.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Only DOCSIS 1.1 cable modems support DCC messages.

```
%UBR7100-4-DCC_RSP_REJ_AUTHENTICATION_FAILURE
%UBR7200-4-DCC_RSP_REJ_AUTHENTICATION_FAILURE
%UBR10000-4-DCC_RSP_REJ_AUTHENTICATION_FAILURE: <133>CMTS[DOCSIS]:<67030500>
DCC-RSP rejected authentication failure
```

Explanation The CMTS has rejected the Dynamic Channel Change response (DCC-RSP) message with a confirmation code of reject-authentication-failure(11) because the message contained an invalid HMAC-digest or Message Integrity Check (MIC) value.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Only DOCSIS 1.1 cable modems support DCC messages.

```
%UBR7100-4-DCC_RSP_REJ_MSG_SYNTAX_ERROR
%UBR7200-4-DCC_RSP_REJ_MSG_SYNTAX_ERROR
%UBR10000-4-DCC_RSP_REJ_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<67030600> DCC-RSP
rejected message syntax error
```

Explanation The CMTS has rejected the Dynamic Channel Change response (DCC-RSP) message with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_RSP_REJ_UNKNOWN_TRANSACTION_ID
%UBR7200-4-DCC_RSP_REJ_UNKNOWN_TRANSACTION_ID
%UBR10000-4-DCC_RSP_REJ_UNKNOWN_TRANSACTION_ID: <133>CMTS[DOCSIS]:<67030400>
DCC-RSP rejected unknown transaction ID
```

Explanation The CMTS has rejected the Dynamic Channel Change response (DCC-RSP) message sent by the cable modem with a confirmation code of reject-unknown-transaction-id(10) because it did not recognize the Transaction ID as belonging to a transaction currently being processed.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DCC_RSP_REJ_UNSPECIFIED_REASON
%UBR7200-4-DCC_RSP_REJ_UNSPECIFIED_REASON
%UBR10000-4-DCC_RSP_REJ_UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<67030300> DCC-RSP
rejected unspecified reason
```

Explanation The CMTS has rejected the Dynamic Channel Change response (DCC-RSP) message sent by the cable modem with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-6-DDC_CFG_HASHFILTER_REMOVED
%UBR7200-6-DDC_CFG_HASHFILTER_REMOVED
%UBR10000-6-DDC_CFG_HASHFILTER_REMOVED: Hash-filter [dec] not present in global
config - Filter removed from [chars]
```

Explanation The specified hash filter was removed from the global configuration, and because the associated cable interface line card was not present in the chassis, the hash filter configuration was also removed from that cable interface line card configuration.

Recommended Action No action is needed.

```
%UBR7100-4-DDC_CFG_HASHID
%UBR7200-4-DDC_CFG_HASHID
%UBR10000-4-DDC_CFG_HASHID: Hash id [dec] does not exist in global configuration
```

Explanation The specified hash ID for the DOCSIS Dual-Channel (DDC) configuration is configured on a cable interface, but it is not configured globally, so that the router cannot map the appropriate OUI or MAC IDs appropriately.

Explanation Configure the hash ID globally, using the **cable redundancy hashfilter** command in global configuration mode.

```
%UBR7100-6-DDC_CFG_TARGET_REMOVED
%UBR7200-6-DDC_CFG_TARGET_REMOVED
%UBR10000-6-DDC_CFG_TARGET_REMOVED: Redundancy target invalid - removed from
[chars]
```

Explanation The router's MY ID configuration was removed from the configuration, but the associated cable interface line card was not present in the chassis, so the associated redundancy configuration is also removed from that card's interface configuration.

Recommended Action No action is needed.

```
%UBR7100-4-DDC_GENERAL_ERROR
%UBR7200-4-DDC_GENERAL_ERROR
%UBR10000-4-DDC_GENERAL_ERROR: Error: [chars]
```

Explanation The DOCSIS Dual-Channel (DDC) configuration generated the specified 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-3-DDC_INVALID_HASHTYPE
%UBR7200-3-DDC_INVALID_HASHTYPE
%UBR10000-3-DDC_INVALID_HASHTYPE: The hash type [dec] for hash id [dec] is invalid
```

Explanation The specified hash ID in the DOCSIS Dual-Channel (DDC) configuration has an invalid configuration.

Recommended Action Verify the DDC configuration on the router. If the configuration appears correct, 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-3-DDC_INVALID_STATICMAP
%UBR7200-3-DDC_INVALID_STATICMAP
%UBR10000-3-DDC_INVALID_STATICMAP: The node [dec] for mac-address [enet] exceeds
maximum configured nodes.
```

Explanation The configuration for the DOCSIS Dual-Channel (DDC) contains an Organization Unique Identifier (OUI) or MAC address mapping that specifies a DCC node number outside of the valid range (from 1 to 3).

Recommended Action Check the configuration to verify that all of the appropriate downstreams have been configured for the DDC feature, and that the number of configured downstreams is not outside of the valid range. If the configuration appears correct, 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-4-DDC_LIST_ERROR
%UBR7200-4-DDC_LIST_ERROR
%UBR10000-4-DDC_LIST_ERROR: DDC list error
```

Explanation The DOCSIS Dual-Channel (DDC) software was unable to create a list or add an element to a list. This typically is due to a lack of resources, such as memory, or a failure of the interprocess communication (IPC) subsystem to send the required list control messages.

Recommended Action Display the current processor usage using the **show proc** command, and look for any processes that might be monopolizing the processor time. Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%UBR7100-4-DDC_MESSAGE_ERROR
%UBR7200-4-DDC_MESSAGE_ERROR
%UBR10000-4-DDC_MESSAGE_ERROR: DDC message error. type [dec]
```

Explanation The DOCSIS Dual-Channel (DDC) software was unable to send the specified interprocess communication (IPC) messages. This could be due to a lack of resources, such as memory, or due to the processor being at or near 100 percent utilization.

Recommended Action Display the current processor usage using the **show proc** command, and look for any processes that might be monopolizing the processor time. Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%UBR7100-4-DDC_NODE_ID_ERROR
%UBR7200-4-DDC_NODE_ID_ERROR
%UBR10000-4-DDC_NODE_ID_ERROR: Node id mismatch NPE: [dec]  linecard: [dec]
```

Explanation The node ID on the NPE subinterface is different than what is configured on the cable interface line card.

Recommended Action Verify that the configuration is correct. If so, 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-4-DDC_PROT_FREQ_ERROR
%UBR7200-4-DDC_PROT_FREQ_ERROR
%UBR10000-4-DDC_PROT_FREQ_ERROR: DS frequency not configured for the protect
target node [dec]
```

Explanation A downstream frequency is not configured on the specified target node.

Recommended Action Configure a downstream frequency on the appropriate downstream.

```
%UBR7100-4-DDC_SEMAPHORE_ERROR
%UBR7200-4-DDC_SEMAPHORE_ERROR
%UBR10000-4-DDC_SEMAPHORE_ERROR: DDC semaphore released when it was not taken
```

Explanation A DOCSIS Dual-Channel (DDC) semaphore flag was released, but the flag was not locked at the time. This indicates either that an unexpected situation or that a software error 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-4-DDC_UNEXPECTED_EVENT_ERROR
%UBR7200-4-DDC_UNEXPECTED_EVENT_ERROR
%UBR10000-4-DDC_UNEXPECTED_EVENT_ERROR: DDC unexpected event error [dec]
```

Explanation The DOCSIS Dual-Channel (DDC) software encountered an unexpected or unsupported event. This indicates either that an unexpected situation or that a software error 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-4-DDC_UNEXPECTED_MESSAGE_ERROR
%UBR7200-4-DDC_UNEXPECTED_MESSAGE_ERROR
%UBR10000-4-DDC_UNEXPECTED_MESSAGE_ERROR: DDC unexpected message error [dec]
```

Explanation The DOCSIS Dual-Channel (DDC) software received an unexpected or unsupported message. This indicates either that an unexpected situation or that a software error 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-3-DDC_UNEXPECTED_NODES
%UBR7200-3-DDC_UNEXPECTED_NODES
%UBR10000-3-DDC_UNEXPECTED_NODES: The number of nodes [dec] is invalid.
```

Explanation The configuration for the DOCSIS Dual-Channel (DDC) is outside of the valid range (from 1 to 3).

Recommended Action Check the configuration to verify that all of the appropriate downstreams have been configured for the DDC feature, and that the number of configured downstreams is not outside of the valid range. If the configuration appears correct, 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. Contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-6-DIFFENCADJUST
%UBR7200-6-DIFFENCADJUST
%UBR10000-6-DIFFENCADJUST: Differential-encoding is disabled on interface [chars]
upstream [dec], it is only supported for QPSK or QAM16.
```

Explanation The specified interface has been configured for differential encoding, which is supported only for QPSK and 16-QAM modulations. Because the interface has also been configured for a modulation profile of 8-QAM, 32-QAM, or 64-QAM modulation, the differential encoding has been disabled.

Recommended Action No action is needed.

```
%UBR7100-1-DISCOVER
%UBR7200-1-DISCOVER
%UBR10000-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay
```

Explanation A hardware or software error involving the line card has occurred.

Recommended Action Replace the line card.

```
%UBR7100-4-DOWNSTREAM_FREQUENCY_FORMAT_INVALID
%UBR7200-4-DOWNSTREAM_FREQUENCY_FORMAT_INVALID
%UBR10000-4-DOWNSTREAM_FREQUENCY_FORMAT_INVALID: <133>CMTS[DOCSIS]:<73010500>
Bad DS FREQ - Format Invalid. CM Mac Addr <[enet]>
```

Explanation The cable modem sent a registration request message that contained an invalid value for the downstream frequency parameter.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-6-DRVMP
%UBR7200-6-DRVMP
%UBR10000-6-DRVMP: Midplane TDM clock reference defaults to Clockcard
```

Explanation The clock card primary reference is from the midplane TDM clock.

Recommended Action No action is needed.

```
%UBR7100-4-DSA_ABORTED_NO_ACK
%UBR7200-4-DSA_ABORTED_NO_ACK
%UBR10000-4-DSA_ABORTED_NO_ACK: <133>CMTS[DOCSIS]:<83020101> Service Add Aborted
- No ACK. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Add request (DSA-REQ) was abandoned because the CMTS did not receive a DSA acknowledgement (DSA-ACK) message from the cable modem after sending a DSA response (DSA-RSP) message.

Recommended Action No action is needed.

```
%UBR7100-4-DSA_ACK_REJECTED_INVALID_TRANSACTION_ID
%UBR7200-4-DSA_ACK_REJECTED_INVALID_TRANSACTION_ID
%UBR10000-4-DSA_ACK_REJECTED_INVALID_TRANSACTION_ID:
<133>CMTS[DOCSIS]:<83020100> Service Add Response rejected - Invalid transaction
ID. CM Mac Addr <[enet]>");
```

Explanation The Dynamic Service Add request (DSA-REQ) was abandoned because the DSA acknowledgement (DSA-ACK) from the indicated cable modem did not contain a transaction ID that matches those for any outstanding DSA requests for this cable modem. The message was rejected with a confirmation code of reject-unknown-transaction-id(10).

Recommended Action The cable modem should retry the request. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_ADD_ABORTED
%UBR7200-4-DSA_ADD_ABORTED
%UBR10000-4-DSA_ADD_ABORTED: <133>CMTS[DOCSIS]:<83000108> Service Add rejected -
Add aborted. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Add request (DSA-REQ) has been rejected with a confirmation code of reject-add-aborted(12) because the initiator of the request has cancelled it.

Recommended Action No action is needed.

```
%UBR7100-4-DSA_AUTH_FAILURE
%UBR7200-4-DSA_AUTH_FAILURE
%UBR10000-4-DSA_AUTH_FAILURE: <133>CMTS[DOCSIS]:<83000120> Service Add rejected -
Authorization failure. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-authorization-failure(24) because the request was rejected by the DOCSIS authorization module.

Recommended Action Verify that the cable modem is properly configured for BPI+ operations.

```
%UBR7100-4-DSA_CLASSIFIER_ANOTHER_FLOW
%UBR7200-4-DSA_CLASSIFIER_ANOTHER_FLOW
%UBR10000-4-DSA_CLASSIFIER_ANOTHER_FLOW: <133>CMTS[DOCSIS]:<83000117> Service
Add rejected - Classifier for another flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-classifier-for-another-service-flow(21) because this packet classifier is already being used for a different service flow than the one specified in the request.

Recommended Action The cable modem should retry the DSA request.

```
%UBR7100-4-DSA_CLASSIFIER_EXISTS
%UBR7200-4-DSA_CLASSIFIER_EXISTS
%UBR10000-4-DSA_CLASSIFIER_EXISTS: <133>CMTS[DOCSIS]:<83000111> Service Add
rejected - Classifier exists. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-classifier-exists(15) because the requested packet classifier already exists.

Recommended Action The cable modem should retry the request.

```
%UBR7100-4-DSA_CLASSIFIER_NOT_FOUND
%UBR7200-4-DSA_CLASSIFIER_NOT_FOUND
%UBR10000-4-DSA_CLASSIFIER_NOT_FOUND: <133>CMTS[DOCSIS]:<83000110> Service Add
rejected - Classifier not found. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-classifier-not-found(14) because the requested packet classifier ID is invalid or does not exist.

Recommended Action Reissue the command with a valid packet classifier ID. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_DUPLICATE_REF_ID_INDEX
%UBR7200-4-DSA_DUPLICATE_REF_ID_INDEX
%UBR10000-4-DSA_DUPLICATE_REF_ID_INDEX: <133>CMTS[DOCSIS]:<83000114> Service Add
rejected duplicate reference-ID or index in message. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-duplicate-reference-ID-or-index-in-message(18) because the message used a service flow reference, classifier reference, service flow ID (SFID), or classifier ID twice in an illegal way.

Recommended Action Reissue the command with a valid service flow. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_HEADER_SUPPR_SETTING_NOT_SUPPORTED
%UBR7200-4-DSA_HEADER_SUPPR_SETTING_NOT_SUPPORTED
%UBR10000-4-DSA_HEADER_SUPPR_SETTING_NOT_SUPPORTED: <133>CMTS[DOCSIS]:<83000105>
Service Add rejected - Header suppression setting not supported. CM Mac Addr
<[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-header-suppression(9) because the requested Packet Header Suppression (PHS) configuration cannot be supported for some reason.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_HMAC_AUTHENTICATION_FAILURE
%UBR7200-4-DSA_HMAC_AUTHENTICATION_FAILURE
%UBR10000-4-DSA_HMAC_AUTHENTICATION_FAILURE: <133>CMTS[DOCSIS]:<83000101>
Service Add rejected - HMAC Authentication Failure. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-authentication-failure(11) because the message contained an invalid HMAC-digest or Message Integrity Check (MIC) value.

Recommended Action Verify that the cable modem is properly configured for BPI+ operations.

```
%UBR7100-4-DSA_MAJOR_CLASSIFIER_ERROR
%UBR7200-4-DSA_MAJOR_CLASSIFIER_ERROR
%UBR10000-4-DSA_MAJOR_CLASSIFIER_ERROR: <133>CMTS[DOCSIS]:<83000122> Service Add
rejected - Major classifier error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-major-classifier-error(201) because the request either did not have a classifier reference, or because it did not specify both a classifier ID and a service flow ID (SFID). These classifier errors were the only major errors in the request.

Recommended Action Correct the classifier errors and reissue the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_MAJOR_MULTIPLE_ERRORS
%UBR7200-4-DSA_MAJOR_MULTIPLE_ERRORS
%UBR10000-4-DSA_MAJOR_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<83000124> Service Add
rejected - Multiple major errors. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-major-multiple-errors(203) because the request included more than one major error with service flows, classifiers, and PHS rules.

Recommended Action Reissue the command with a valid DSA-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_MAJOR_PHS_RULE_ERROR
%UBR7200-4-DSA_MAJOR_PHS_RULE_ERROR
%UBR10000-4-DSA_MAJOR_PHS_RULE_ERROR: <133>CMTS[DOCSIS]:<83000123> Service Add
rejected - Major PHS rule error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a reject-major-PHS-rule-error(202) because the request did not contain both a service flow reference/ID and a classifier reference/ID. The PHS errors were the only major errors in the request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_MAJOR_SRV_FLOW_ERROR
%UBR7200-4-DSA_MAJOR_SRV_FLOW_ERROR
%UBR10000-4-DSA_MAJOR_SRV_FLOW_ERROR: <133>CMTS[DOCSIS]:<83000121> Service Add
rejected - Major service flow error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-major-service-flow(200) because the request did not contain either a service flow reference or service flow ID in a service flow TLV. The service flow errors were the only major errors in the request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_MSG_SYNTAX_ERROR
%UBR7200-4-DSA_MSG_SYNTAX_ERROR
%UBR10000-4-DSA_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<83000125> Service Add
rejected - Message syntax error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_MSG_TOO_BIG
%UBR7200-4-DSA_MSG_TOO_BIG
%UBR10000-4-DSA_MSG_TOO_BIG: <133>CMTS[DOCSIS]:<83000126> Service Add rejected -
Message too big. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-message-too-big(206) because the message needed to respond to the request would exceed the maximum allowable length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_MULTIPLE_DOWNSTREAM_FLOW
%UBR7200-4-DSA_MULTIPLE_DOWNSTREAM_FLOW
%UBR10000-4-DSA_MULTIPLE_DOWNSTREAM_FLOW: <133>CMTS[DOCSIS]:<83000116> Service
Add rejected - Multiple downstream flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-multiple-downstream-flows(20) because it requested two or more downstream service flows.

Recommended Action A single DSA-REQ message can include at most one request for a service flow in each direction (for example, one downstream service flow, one upstream service flow, or one downstream and one upstream service flow). Verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSA messages. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_MULTIPLE_ERRORS
%UBR7200-4-DSA_MULTIPLE_ERRORS
%UBR10000-4-DSA_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<83000109> Service Add
rejected - Multiple errors. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-multiple-errors(13) because the request message had multiple errors in it.

Recommended Action Reissue the command with a valid DSA-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_MULTIPLE_UPSTREAM_FLOW
%UBR7200-4-DSA_MULTIPLE_UPSTREAM_FLOW
%UBR10000-4-DSA_MULTIPLE_UPSTREAM_FLOW: <133>CMTS[DOCSIS]:<83000115> Service Add
rejected - Multiple upstream flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-multiple-upstream-service-flows(19) because it requested two or more upstream service flows.

Recommended Action A single DSA-REQ message can include at most one request for a service flow in each direction (for example, one downstream service flow, one upstream service flow, or one downstream and one upstream service flow). Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_PARAMETER_INVALID_CONTEXT
%UBR7200-4-DSA_PARAMETER_INVALID_CONTEXT
%UBR10000-4-DSA_PARAMETER_INVALID_CONTEXT: <133>CMTS[DOCSIS]:<83000119> Service
Add rejected - Parameter invalid for context. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-parameter-invalid-for-context(23) because the message contained at least one parameter that was invalid for the TLV in which it was used.

Recommended Action The cable modem should retry the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_PERMANENT_ADMINISTRATIVE
%UBR7200-4-DSA_PERMANENT_ADMINISTRATIVE
%UBR10000-4-DSA_PERMANENT_ADMINISTRATIVE: <133>CMTS[DOCSIS]:<83000103> Service
Add rejected - Permanent Administrative. CM Mac Addr <[enet]>
```

Explanation The DSA request was rejected with a confirmation code of reject-permanent/reject-admin(4) because the policy, configuration, or capabilities of the CMTS or cable modem do not allow this particular request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. If necessary, change to the DOCSIS configuration file for this cable modem to allow the requests. Verify that the CMTS is running released software. If necessary, change the CMTS configuration to allow this request.

```
%UBR7100-4-DSA_PHS_RULE_ANOTHER_FLOW
%UBR7200-4-DSA_PHS_RULE_ANOTHER_FLOW
%UBR10000-4-DSA_PHS_RULE_ANOTHER_FLOW: <133>CMTS[DOCSIS]:<83000118> Service Add
rejected - PHS rule for another flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-PHS-for-another-service-flow(22) because the request includes a Packet Header Suppression (PHS) rule that is reserved for a service flow other than the one being requested.

Recommended Action The cable modem should retry the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_PHS_RULE_EXISTS
%UBR7200-4-DSA_PHS_RULE_EXISTS
%UBR10000-4-DSA_PHS_RULE_EXISTS: <133>CMTS[DOCSIS]:<83000113> Service Add
rejected - PHS rule exists. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-PHS-rule-exists(17) because the request contains a Service ID and classifier ID combination for which a Packet Header Suppression (PHS) rule already exists.

Recommended Action The cable modem should retry the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_PHS_RULE_NOT_FOUND
%UBR7200-4-DSA_PHS_RULE_NOT_FOUND
%UBR10000-4-DSA_PHS_RULE_NOT_FOUND: <133>CMTS[DOCSIS]:<83000112> Service Add
rejected - PHS rule not found. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-PHS-rule-not-found(16) because the message specified a service flow ID and classifier ID combination for which no PHS rule exists.

Recommended Action Reissue the command with valid parameters. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_REQUIRED_PARAMETER_NOT_PRESENT
%UBR7200-4-DSA_REQUIRED_PARAMETER_NOT_PRESENT
%UBR10000-4-DSA_REQUIRED_PARAMETER_NOT_PRESENT: <133>CMTS[DOCSIS]:<83000104>
Service Add rejected - Required parameter not present. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-required-parameter-not-present(8) because at least one required parameter was not present in the message.

Recommended Action Reissue the command with all required parameters. In particular, if BPI+ is being used, specify a proper key sequence number and HMAC-digest value. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_RSP_ABORTED_NO_RSP
%UBR7200-4-DSA_RSP_ABORTED_NO_RSP
%UBR10000-4-DSA_RSP_ABORTED_NO_RSP: <133>CMTS[DOCSIS]:<83010101> Service Add
aborted - No RSP. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-add-aborted(12) because the cable modem did not provide a DSA response (DSA-RSP) message within the timeout period.

Recommended Action No action is needed.

```
%UBR7100-4-DSA_RSP_INVALID_TRANSACTION_ID
%UBR7200-4-DSA_RSP_INVALID_TRANSACTION_ID
%UBR10000-4-DSA_RSP_INVALID_TRANSACTION_ID: <133>CMTS[DOCSIS]:<83010100> Service
Add response rejected - Invalid Transaction ID. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Add request (DSA-REQ) was abandoned because the DSA response (DSA-RSP) from the indicated cable modem did not contain a transaction ID that matches those for any outstanding DSA requests for this cable modem. The message was rejected with a confirmation code of reject-unknown-transaction-id(10).

Recommended Action The cable modem should retry the request. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSA messages. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSA_SERVICE_FLOW_EXISTS
%UBR7200-4-DSA_SERVICE_FLOW_EXISTS
%UBR10000-4-DSA_SERVICE_FLOW_EXISTS: <133>CMTS[DOCSIS]:<83000106> Service Add
rejected Service flow exists. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-service-flow-exists(7) because the service flow to be added already exists.

Recommended Action No action is needed.

```
%UBR7100-4-DSA_TEMP_DCC
%UBR7200-4-DSA_TEMP_DCC
%UBR10000-4-DSA_TEMP_DCC: <133>CMTS[DOCSIS]:<83000127> Service Add rejected -
Temporary DCC. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add response (DSA-RSP) with a confirmation code of reject-temporary-DCC(25) because the requested services are not currently available on the current channels.

Recommended Action The cable modem should wait for the CMTS to send a Dynamic Channel Change request (DCC-REQ) and then again request the services after completing the channel change. If the CMTS does not send a DCC-REQ, the cable modem should wait for the T14 timer to expire before sending another request for these services.

```
%UBR7100-4-DSA_TEMP_NO_RESOURCE
%UBR7200-4-DSA_TEMP_NO_RESOURCE
%UBR10000-4-DSA_TEMP_NO_RESOURCE: <133>CMTS[DOCSIS]:<83000102> Service Add
rejected - Temporary no resource. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Add request (DSA-REQ) has been rejected with a confirmation code of reject-temporary/reject-resource(3) because either the cable modem or CMTS has temporarily run out of a needed resource, such as memory or available SIDs.

Recommended Action The cable modem should wait and retry the request at a later time. If necessary, reboot the cable modem to reinitialize its resources.

```
%UBR7100-4-DSA_UNRECOGNIZED_CONFIGURATION_SETTING
%UBR7200-4-DSA_UNRECOGNIZED_CONFIGURATION_SETTING
%UBR10000-4-DSA_UNRECOGNIZED_CONFIGURATION_SETTING: <133>CMTS[DOCSIS]:<83000101>
Service Add rejected - Unrecognized Configuration Setting. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-unrecognized-configuration-setting(2) because it included an unknown TLV, or a TLV with a value that is outside of the allowable range.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSA_UNSPECIFIED_REASON
%UBR7200-4-DSA_UNSPECIFIED_REASON
%UBR10000-4-DSA_UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<83000100> Service Add
rejected - Unspecified reason. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Add request (DSA-REQ) with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_ABORTED_NO_ACK
%UBR7200-4-DSC_ABORTED_NO_ACK
%UBR10000-4-DSC_ABORTED_NO_ACK: <133>CMTS[DOCSIS]:<83020201> Service Change
Aborted - No ACK. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Change request (DSC-REQ) was abandoned because the CMTS did not receive a DSC acknowledgement (DSC-ACK) message from the cable modem after sending a DSC response (DSC-RSP) message.

Recommended Action No action is needed.

```
%UBR7100-4-DSC_ACK_REJECTED_INVALID_TRANSACTION_ID
%UBR7200-4-DSC_ACK_REJECTED_INVALID_TRANSACTION_ID
%UBR10000-4-DSC_ACK_REJECTED_INVALID_TRANSACTION_ID:
<133>CMTS[DOCSIS]:<83020200> Service Change ACK Rejected - Invalid transaction ID.
CM Mac Addr <[enet]>");
```

Explanation The Dynamic Service Change request (DSC-REQ) was abandoned because the DSC acknowledgement (DSC-ACK) from the indicated cable modem did not contain a transaction ID that matches those for any outstanding DSC requests for this cable modem. The message was rejected with a confirmation code of reject-unknown-transaction-id(10).

Recommended Action The cable modem should retry the request. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSC messages. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_AUTH_FAILURE
%UBR7200-4-DSC_AUTH_FAILURE
%UBR10000-4-DSC_AUTH_FAILURE: <133>CMTS[DOCSIS]:<83000220> Service Change
rejected - Authorization failure. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-authorization-failure(24) because the request was rejected by the DOCSIS authorization module.

Recommended Action Verify that the cable modem is properly configured for BPI+ operations.

```
%UBR7100-4-DSC_CLASSIFIER_ANOTHER_FLOW
%UBR7200-4-DSC_CLASSIFIER_ANOTHER_FLOW
%UBR10000-4-DSC_CLASSIFIER_ANOTHER_FLOW: <133>CMTS[DOCSIS]:<83000217> Service
Change rejected - Classifier for another flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-classifier-for-another-service-flow(21) because this packet classifier is already being used for a different service flow than the one specified in the request.

Recommended Action The cable modem should retry the request.

```
%UBR7100-4-DSC_CLASSIFIER_EXISTS
%UBR7200-4-DSC_CLASSIFIER_EXISTS
%UBR10000-4-DSC_CLASSIFIER_EXISTS: <133>CMTS[DOCSIS]:<83000211> Service Change
rejected - Classifier exists. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-classifier-exists(15) because the requested packet classifier already exists.

Recommended Action The cable modem should retry the request.

```
%UBR7100-4-DSC_CLASSIFIER_NOT_FOUND
%UBR7200-4-DSC_CLASSIFIER_NOT_FOUND
%UBR10000-4-DSC_CLASSIFIER_NOT_FOUND: <133>CMTS[DOCSIS]:<83000210> Service
Change rejected - Classifier not found. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-classifier-not-found(14) because the requested packet classifier ID is invalid or does not exist.

Recommended Action Reissue the command with a valid packet classifier ID. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_DUPLICATE_REF_ID_INDEX
%UBR7200-4-DSC_DUPLICATE_REF_ID_INDEX
%UBR10000-4-DSC_DUPLICATE_REF_ID_INDEX: <133>CMTS[DOCSIS]:<83000214> Service
Change rejected - Duplicate reference-ID or index in message. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-duplicate-reference-ID-or-index-in-message(18) because the message used a service flow reference, classifier reference, service flow ID (SFID), or classifier ID twice in an illegal way.

Recommended Action Reissue the command with a valid service flow. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_HEADER_SUPPR_SETTING_NOT_SUPPORTED
%UBR7200-4-DSC_HEADER_SUPPR_SETTING_NOT_SUPPORTED
%UBR10000-4-DSC_HEADER_SUPPR_SETTING_NOT_SUPPORTED: <133>CMTS[DOCSIS]:<83000207>
Service Change rejected - Header suppression setting not supported. CM Mac Addr
<[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-header-suppression(9) because the requested Packet Header Suppression (PHS) configuration cannot be supported for some reason.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_HMAC_AUTHENTICATION_FAILURE
%UBR7200-4-DSC_HMAC_AUTHENTICATION_FAILURE
%UBR10000-4-DSC_HMAC_AUTHENTICATION_FAILURE: <133>CMTS[DOCSIS]:<83000208>
Service Change rejected - HMAC Auth Failure. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-authentication-failure(11) because the message contained an invalid HMAC-digest or Message Integrity Check (MIC) value.

Recommended Action Verify that the cable modem is properly configured for BPI+ operations.

```
%UBR7100-4-DSC_MAJOR_CLASSIFIER_ERROR
%UBR7200-4-DSC_MAJOR_CLASSIFIER_ERROR
%UBR10000-4-DSC_MAJOR_CLASSIFIER_ERROR: <133>CMTS[DOCSIS]:<83000222> Service
Change rejected - Major classifier error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-major-classifier-error(201) because the request either did not have a classifier reference, or because it did not specify both a classifier ID and a service flow ID (SFID). These classifier errors were the only major errors in the request.

Recommended Action Correct the classifier errors and reissue the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSA messages. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_MAJOR_MULTIPLE_ERRORS
%UBR7200-4-DSC_MAJOR_MULTIPLE_ERRORS
%UBR10000-4-DSC_MAJOR_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<83000224> Service
Change rejected - Multiple major errors. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-major-multiple-errors(203) because the request included more than one major error with service flows, classifiers, and PHS rules.

Recommended Action Reissue the command with a valid DSC-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_MAJOR_PHS_RULE_ERROR
%UBR7200-4-DSC_MAJOR_PHS_RULE_ERROR
%UBR10000-4-DSC_MAJOR_PHS_RULE_ERROR: <133>CMTS[DOCSIS]:<83000223> Service
Change rejected - Major PHS rule error. CM Mac Addr <[enet]>
```

Explanation The DSC request was rejected because the message request with a reject-major-PHS-rule-error(202) because the request did not contain both a service flow reference/ID and a classifier reference/ID. The PHS errors were the only major errors in the request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_MAJOR_SRV_FLOW_ERROR
%UBR7200-4-DSC_MAJOR_SRV_FLOW_ERROR
%UBR10000-4-DSC_MAJOR_SRV_FLOW_ERROR: <133>CMTS[DOCSIS]:<83000221> Service
Change rejected - Major service flow error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-major-service-flow(200) because the request did not contain either a service flow reference or service flow ID in a service flow TLV. The service flow errors were the only major errors in the request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_MSG_SYNTAX_ERROR
%UBR7200-4-DSC_MSG_SYNTAX_ERROR
%UBR10000-4-DSC_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<83000225> Service Change
rejected - Message syntax error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_MSG_TOO_BIG
%UBR7200-4-DSC_MSG_TOO_BIG
%UBR10000-4-DSC_MSG_TOO_BIG: <133>CMTS[DOCSIS]:<83000226> Service Change rejected
- Message too big. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-message-too-big(206) because the message needed to respond to the request would exceed the maximum allowable length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_MULTIPLE_DOWNSTREAM_FLOW
%UBR7200-4-DSC_MULTIPLE_DOWNSTREAM_FLOW
%UBR10000-4-DSC_MULTIPLE_DOWNSTREAM_FLOW: <133>CMTS[DOCSIS]:<83000216> Service
Change rejected - Multiple downstream flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-multiple-downstream-flows(20) because it requested two or more downstream service flows.

Recommended Action A single DSC-REQ message can include at most one request for a service flow in each direction (for example, one downstream service flow, one upstream service flow, or one downstream and one upstream service flow). Verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSC messages. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_MULTIPLE_ERRORS
%UBR7200-4-DSC_MULTIPLE_ERRORS
%UBR10000-4-DSC_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<83000209> Service Change
rejected - Multiple errors. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-multiple-errors(13) because the request message had multiple errors in it.

Recommended Action Reissue the command with a valid DSC-REQ message. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_MULTIPLE_UPSTREAM_FLOW
%UBR7200-4-DSC_MULTIPLE_UPSTREAM_FLOW
%UBR10000-4-DSC_MULTIPLE_UPSTREAM_FLOW: <133>CMTS[DOCSIS]:<83000215> Service
Change rejected - Multiple upstream flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-multiple-upstream-service-flows(19) because it requested two or more upstream service flows.

Recommended Action A single DSC-REQ message can include at most one request for a service flow in each direction (for example, one downstream service flow, one upstream service flow, or one downstream and one upstream service flow). Verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSC messages. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_PARAMETER_INVALID_CONTEXT
%UBR7200-4-DSC_PARAMETER_INVALID_CONTEXT
%UBR10000-4-DSC_PARAMETER_INVALID_CONTEXT: <133>CMTS[DOCSIS]:<83000219> Service
Change rejected - Parameter invalid for context. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-parameter-invalid-for-context(23) because the message contained at least one parameter that was invalid for the TLV in which it was used.

Recommended Action The cable modem should retry the request. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_PERMANENT_ADMINISTRATIVE
%UBR7200-4-DSC_PERMANENT_ADMINISTRATIVE
%UBR10000-4-DSC_PERMANENT_ADMINISTRATIVE: <133>CMTS[DOCSIS]:<83000203> Service
Change rejected - Permanent Administrative. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Change request (DSC-REQ) was rejected with a confirmation code of reject-permanent/reject-admin(4) because the policy, configuration, or capabilities of the CMTS or cable modem do not allow this particular request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software. If necessary, change to the DOCSIS configuration file for this cable modem to allow the requests. Verify that the CMTS is running released software. If necessary, change the CMTS configuration to allow this request.

```
%UBR7100-4-DSC_PHS_RULE_ANOTHER_FLOW
%UBR7200-4-DSC_PHS_RULE_ANOTHER_FLOW
%UBR10000-4-DSC_PHS_RULE_ANOTHER_FLOW: <133>CMTS[DOCSIS]:<83000218> Service
Change rejected - PHS rule for another flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-PHS-for-another-service-flow(22) because the request includes a Packet Header Suppression (PHS) rule that is reserved for a service flow other than the one being requested.

Recommended Action The cable modem should retry the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_PHS_RULE_EXISTS
%UBR7200-4-DSC_PHS_RULE_EXISTS
%UBR10000-4-DSC_PHS_RULE_EXISTS: <133>CMTS[DOCSIS]:<83000213> Service Change
rejected - PHS rule exists. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-PHS-rule-exists(17) because the request contains a Service ID and classifier ID combination for which a Packet Header Suppression (PHS) rule already exists.

Recommended Action The cable modem should retry the request. Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_PHS_RULE_NOT_FOUND
%UBR7200-4-DSC_PHS_RULE_NOT_FOUND
%UBR10000-4-DSC_PHS_RULE_NOT_FOUND: <133>CMTS[DOCSIS]:<83000212> Service Change
rejected - PHS rule not found. CM Mac Addr <[enet]>
```

Explanation The Dynamic Service Change request (DSC-REQ) was rejected with a confirmation code of reject-PHS-rule-not-found(16) because the message specified a service flow ID and classifier ID combination for which no PHS rule exists.

Recommended Action Reissue the command with valid parameters. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_REQUESTOR_NOT_OWNER
%UBR7200-4-DSC_REQUESTOR_NOT_OWNER
%UBR10000-4-DSC_REQUESTOR_NOT_OWNER: <133>CMTS[DOCSIS]:<83000204> Service Change
rejected - Requestor Not Owner Of Service Flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-not-owner(5) because the cable modem is not associated with this particular service flow.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software. Also investigate the possibility that this is a spoofing or theft-of-service attack.

```
%UBR7100-4-DSC_REQUIRED_PARAMETER_NOT_PRESENT
%UBR7200-4-DSC_REQUIRED_PARAMETER_NOT_PRESENT
%UBR10000-4-DSC_REQUIRED_PARAMETER_NOT_PRESENT: <133>CMTS[DOCSIS]:<83000206>
Service Change rejected - Required parameter not present. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-required-parameter-not-present(8) because at least one required parameter was not present in the message.

Recommended Action Reissue the command with all required parameters. In particular, if BPI+ is being used, specify a proper key sequence number and HMAC-digest value. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_RSP_ABORTED_NO_RSP
%UBR7200-4-DSC_RSP_ABORTED_NO_RSP
%UBR10000-4-DSC_RSP_ABORTED_NO_RSP: <133>CMTS[DOCSIS]:<83010201> Service Change
aborted - No RSP. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) because the cable modem did not provide a DSC response (DSC-RSP) message within the timeout period.

Recommended Action No action is needed.

```
%UBR7100-4-DSC_RSP_INVALID_TRANSACTION_ID
%UBR7200-4-DSC_RSP_INVALID_TRANSACTION_ID
%UBR10000-4-DSC_RSP_INVALID_TRANSACTION_ID: <133>CMTS[DOCSIS]:<83010200> Service
Change response rejected - Invalid Transaction ID. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change response (DSC-RSP) because it did not contain a transaction ID that matches those for any outstanding DSC requests for this cable modem. The message was rejected with a confirmation code of reject-unknown-transaction-id(10).

Recommended Action The cable modem should retry the request. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSC messages. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSC_SERVICE_FLOW_NOT_FOUND
%UBR7200-4-DSC_SERVICE_FLOW_NOT_FOUND
%UBR10000-4-DSC_SERVICE_FLOW_NOT_FOUND: <133>CMTS[DOCSIS]:<83000205> Service
Change rejected - Service Flow Not Found. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-service-flow-not-found(6) because the requested service flow does not exist.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSC messages. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_TEMP_DCC
%UBR7200-4-DSC_TEMP_DCC
%UBR10000-4-DSC_TEMP_DCC: <133>CMTS[DOCSIS]:<83000227> Service Change rejected -
Temporary DCC. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change response (DSC-RSP) with a confirmation code of reject-temporary-DCC(25) because the requested services are not currently available on the current channels.

Recommended Action The cable modem should wait for the CMTS to send a Dynamic Channel Change request (DCC-REQ) and then again request the services after completing the channel change. If the CMTS does not send a DCC-REQ, the cable modem should wait for the T14 timer to expire before sending another request for these services.

```
%UBR7100-4-DSC_TEMP_NO_RESOURCE
%UBR7200-4-DSC_TEMP_NO_RESOURCE
%UBR10000-4-DSC_TEMP_NO_RESOURCE: <133>CMTS[DOCSIS]:<83000202> Service Change
rejected - Temporary no resource. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change response (DSC-RSP) with a confirmation code of reject-temporary/reject-resource(3) because either the cable modem or CMTS has temporarily run out of a needed resource, such as memory or available SIDs.

Recommended Action The cable modem should wait and retry the request at a later time. If necessary, reboot the cable modem to reinitialize its resources.

```
%UBR7100-4-DSC_UNRECOGNIZED_CONFIGURATION_SETTING
%UBR7200-4-DSC_UNRECOGNIZED_CONFIGURATION_SETTING
%UBR10000-4-DSC_UNRECOGNIZED_CONFIGURATION_SETTING: <133>CMTS[DOCSIS]:<83000201>
Service Change Rejected - Unrecognized Configuration Setting. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-unrecognized-configuration-setting(2) because it included an unknown TLV, or a TLV with a value outside of the allowable range.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSC_UNSPECIFIED_REASON
%UBR7200-4-DSC_UNSPECIFIED_REASON
%UBR10000-4-DSC_UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<83000200> Service Change
rejected - Unspecified reason. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Change request (DSC-REQ) with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-DSD_HMAC_AUTHENTICATION_FAILURE
%UBR7200-4-DSD_HMAC_AUTHENTICATION_FAILURE
%UBR10000-4-DSD_HMAC_AUTHENTICATION_FAILURE: <133>CMTS[DOCSIS]:<83000303>
Service Delete rejected - HMAC Auth Failure. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Delete request (DSD-REQ) with a confirmation code of reject-authentication-failure(11) because the message contained an invalid HMAC-digest or Message Integrity Check (MIC) value.

Explanation Verify that the cable modem is properly configured for BPI+ operations.

```
%UBR7100-4-DSD_MSG_SYNTAX_ERROR
%UBR7200-4-DSD_MSG_SYNTAX_ERROR
%UBR10000-4-DSD_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<83000304> Service Delete
rejected - Message Syntax Error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Delete request (DSD-REQ) with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSD_REQUESTOR_NOT_OWNER
%UBR7200-4-DSD_REQUESTOR_NOT_OWNER
%UBR10000-4-DSD_REQUESTOR_NOT_OWNER: <133>CMTS[DOCSIS]:<83000301> Service Delete
rejected - Requestor Not Owner of service flow. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Delete request (DSD-REQ) with a confirmation code of reject-not-owner(5) because the cable modem is not associated with this particular service flow.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software. Also investigate the possibility that this is a spoofing or theft-of-service attack.

```
%UBR7100-4-DSD_RSP_REJECTED_INVALID_TRANSACTION_ID
%UBR7200-4-DSD_RSP_REJECTED_INVALID_TRANSACTION_ID
%UBR10000-4-DSD_RSP_REJECTED_INVALID_TRANSACTION_ID:
<133>CMTS[DOCSIS]:<83010300> Service Delete Response rejected - Invalid
transaction ID. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the Dynamic Service Delete response (DSD-RSP) from the indicated cable modem because it did not contain a transaction ID that matches those for any outstanding DSD requests for this cable modem. The message was rejected with a confirmation code of reject-unknown-transaction-id(10).

Recommended Action The cable modem should retry the request. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSD messages. Verify that you are running released software on the CMTS.

```
%UBR7100-4-DSD_SERVICE_FLOW_NOT_FOUND
%UBR7200-4-DSD_SERVICE_FLOW_NOT_FOUND
%UBR10000-4-DSD_SERVICE_FLOW_NOT_FOUND: <133>CMTS[DOCSIS]:<83000302> Service
Delete rejected - Service Flow Not Found. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Delete request (DSD-REQ) with a confirmation code of reject-service-flow-not-found(6) because the requested service flow does not exist.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is sending the proper DSC messages. Verify that the CMTS is running released software.

```
%UBR7100-4-DSD_UNSPECIFIED_REASON
%UBR7200-4-DSD_UNSPECIFIED_REASON
%UBR10000-4-DSD_UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<83000300> Service Delete
rejected - Unspecified reason. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's Dynamic Service Delete request (DSD-REQ) with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-6-DSG_ALL_TUNNEL_REMOVED
%UBR7200-6-DSG_ALL_TUNNEL_REMOVED: All DSG tunnels are removed on interface
[chars] and its subinterfaces
```

Explanation An operator has disabled the DOCSIS Set-top Gateway (DSG) on the indicated cable interface and its subinterfaces, using the **no cable dsg** command.

Recommended Action No action is needed.

```
UBR7100-3-DSG_HBEAT_FAILED
UBR7200-3-DSG_HBEAT_FAILED: Interface [chars] failed to send hbeat packet for
vendor [chars]
```

Explanation The DSG subsystem did not send a keepalive message (heartbeat packet) as expected for the particular vendor's DSG tunnel on the indicated cable interface or subinterface. When DSG keepalive messages are enabled, the system sends one keepalive message each second. After 30 DSG keepalives are missed, the Cisco CMTS may suspend DSG operations on the cable interface.

Recommended Action Verify that DSG operations are enabled on the interface, using the **cable dsg** cable interface command. Verify that keepalive messages are required for your DSG network. If they are not, disable the keepalive messages, using the **no cable dsg keepalive** global configuration command. If the problem persists, verify that you are running released software on the Cisco CMTS. Gather information about the amount of memory in the system, and 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.

```
%UBR7100-4-DUPLICATEMAC
%UBR7200-4-DUPLICATEMAC
%UBR10000-4-DUPLICATEMAC: Cable modem [enet] is online on both interface [chars]
and interface [chars].
```

Explanation The specified cable modem has been detected on two interfaces. This message indicates that two cable modems are using the same MAC address. This could be a theft-of-service or MAC address spoofing attempt.

Recommended Action Check for cable modems with duplicate MAC addresses.

```
%UBR7100-6-FECKBYTEADJUST
%UBR7200-6-FECKBYTEADJUST
%UBR10000-6-FECKBYTEADJUST: [char] burst's FEC K BYTE in mod profile [dec] is
adjusted to [dec]
```

Explanation The configuration for the indicated profile (either in the configuration file or from a CLI command) specified an incorrect value for the FEC parameter, so the CMTS adjusted the FEC parameter to a minimum valid value for the profile.

Recommended Action No action is needed.

```
%UBR7100-6-FORCE_QOS_CMD_FAILED
%UBR7200-6-FORCE_QOS_CMD_FAILED
%UBR10000-6-FORCE_QOS_CMD_FAILED: Unable to switch modem [chars] to QoS profile
[dec].
```

Explanation A user gave the **cable modem qos profile** command to change the quality of service (QoS) profile for the indicated cable modem, but the Cisco CMTS router could not change the modem to the specified profile. This could be due to an incorrect cable modem or invalid QoS profile being specified with the command, or it could also be because the current QoS profile on the cable

modem was not created on the Cisco CMTS. The **cable modem qos profile** command has an effect only when the profile that it specifies and the original QoS profile on the cable modem have been created already on the Cisco CMTS, using the **cable qos profile** command.

Recommended Action Verify that the correct cable modem was specified in the **cable modem qos profile** command. Also use the **show cable qos profile** and **show cable modem registration** commands to verify that the modem's current QoS profile and the new QoS profile have been created on the Cisco CMTS. If the problem persists, enable QoS debugging using the **debug cable interface verbose** and **debug cable qos** commands to determine why the profile change is failing.

```
%UBR7100-3-FPSUBINIT
%UBR7200-3-FPSUBINIT
%UBR10000-3-FPSUBINIT: Unable to create subinterface [chars] for hw interface
[chars]
```

Explanation The system was unable to create the specified subinterface on the specified interface, because it could not create the necessary internal subinterface data structures.

Recommended Action Verify that you are running released software on the Cisco CMTS. Gather information about the amount of memory in the system, and 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.

```
%UBR7100-6-FREERUN
%UBR7200-6-FREERUN
%UBR10000-6-FREERUN: Cable clock in Freerun mode
```

Explanation The clock card is in free-run mode.

Recommended Action No action is needed.

```
%UBR7100-6-GUARDADJUST
%UBR7200-6-GUARDADJUST
%UBR10000-6-GUARDADJUST: [chars] burst's guard time in mod profile [dec] is
adjusted to [dec] symbols.
```

Explanation The burst guard time for the specified modulation profile on the specified interface has been adjusted to the indicated value.

Recommended Action No action is needed.

```
%UBR7100-6-GUARDSYMLENADJUST
%UBR7200-6-GUARDSYMLENADJUST
%UBR10000-6-GUARDSYMLENADJUST: [chars] burst's guard symbol length in modulation
profile [dec] is adjusted to the operable value of [dec] symbols.
```

Explanation The CMTS has adjusted the guard symbol length in the indicated burst profile to the valid value.

Recommended Action No action is required.

```
%UBR7100-4-HEADER_SUPPRESSION_SETTING_NOT_SUPPORTED
%UBR7200-4-HEADER_SUPPRESSION_SETTING_NOT_SUPPORTED
%UBR10000-4-HEADER_SUPPRESSION_SETTING_NOT_SUPPORTED: <133>CMTS[DOCSIS]:
<73020105> Registration rejected, Header suppression setting not supported. CM Mac
Addr [enet]
```

Explanation The CMTS rejected a cable modem's registration request with a confirmation code of reject-header-suppression(9) because the requested Packet Header Suppression (PHS) configuration cannot be supported for some reason.

Recommended Action Check the DOCSIS configuration file being used by this cable modem and correct any errors in the PHS fields. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that the CMTS is running released software.

```
%UBR7100-6-HOLDOVER
%UBR7200-6-HOLDOVER
%UBR10000-6-HOLDOVER: Cable clock in Holdover mode
```

Explanation The clock card has switched to holdover mode.

Recommended Action Check the reference source.

```
%UBR7100-3-HUNGFFTSTATE
%UBR7200-3-HUNGFFTSTATE
%UBR10000-3-HUNGFFTSTATE: BCM3138 chip [dec] is not idle for [dec] retries
```

Explanation Some cable interface line cards use the Broadcom BCM3138 burst receiver to perform a Fast Fourier Transform (FFT) for digital spectrum analysis, and the card should perform only one FFT operation at a time. This error message indicates that the software repeatedly checked to see if the specified BCM3138 chip was idle and available for the next FFT operation, but that the chip never became available. The software assumes that the chip entered a hung state and so resets the chip.

Recommended Action No action is needed unless this error occurs repeatedly. If so, verify that you are running released software on the CMTS. 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.

```
%UBR7100-4-HWFAULT
%UBR7200-4-HWFAULT
%UBR10000-4-HWFAULT: Hardware Fault in Clockcard
```

Explanation A hardware error involving the clock card has occurred.

Recommended Action Replace the clock card.

```
%UBR7100-3-IDB_MISMATCH
%UBR7200-3-IDB_MISMATCH
%UBR10000-3-IDB_MISMATCH: DHCP IP Address Assign Mismatch MAC [enet] on [chars]
assigned to [chars] with [IP_address]
```

Explanation A DHCP server assignment 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.

```
%UBR7100-3-INTERCEPT
%UBR7200-3-INTERCEPT
%UBR10000-3-INTERCEPT: Interface [chars], Failed to send intercept packet to
server [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. 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.

```
%UBR7100-3-INVALID_BP_CONFIGURATION_SETTING_VALUE
%UBR7200-3-INVALID_BP_CONFIGURATION_SETTING_VALUE
%UBR10000-3-INVALID_BP_CONFIGURATION_SETTING_VALUE: <132>CMTS[DOCSIS]:<66010200>
Invalid BP Configuration Setting Value for TLV type [dec]. CM MAC Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because it presented a bad value for the BPI configuration field in its configuration file.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-4-INVALID_COS_CONFIGURATION
%UBR7200-4-INVALID_COS_CONFIGURATION
%UBR10000-4-INVALID_COS_CONFIGURATION: <133>CMTS[DOCSIS]:<73010900> Bad Class of
Service - Invalid Configuration. CM Mac Address [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because it presented a bad class of service (CoS) in its configuration file.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-4-INVALID_MAX_DOWNSTREAM_BIT_FORMAT
%UBR7200-4-INVALID_MAX_DOWNSTREAM_BIT_FORMAT
%UBR10000-4-INVALID_MAX_DOWNSTREAM_BIT_FORMAT: <133>CMTS[DOCSIS]:<73011200> Bad
Max DS bit - Invalid format. CM Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because it presented an invalid maximum downstream bitrate value.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem.

```
%UBR7100-4-INVALID_MAX_UPSTREAM_BIT_FORMAT
%UBR7200-4-INVALID_MAX_UPSTREAM_BIT_FORMAT
%UBR10000-4-INVALID_MAX_UPSTREAM_BIT_FORMAT: <133>CMTS[DOCSIS]:<73011300> Bad
Max US Bit - Invalid format. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because its maximum upstream bitrate is not in the proper format.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-4-INVALID_MAX_UPSTREAM_BURST_FORMAT
%UBR7200-4-INVALID_MAX_UPSTREAM_BURST_FORMAT
%UBR10000-4-INVALID_MAX_UPSTREAM_BURST_FORMAT: <133>CMTS[DOCSIS]:<73011600> Bad
Max US CH Transmit Burst Configuration setting - Invalid format. CM Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because it presented an invalid value for the maximum upstream channel transmit burst field.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-4-INVALID_MIN_UPSTREAM_CHANNEL_BIT_RATE_FORMAT
%UBR7200-4-INVALID_MIN_UPSTREAM_CHANNEL_BIT_RATE_FORMAT
%UBR10000-4-INVALID_MIN_UPSTREAM_CHANNEL_BIT_RATE_FORMAT:
<133>CMTS[DOCSIS]<73011501> Bad Guaranteed MIN US Channel bit Rate Configuration
setting - Invalid format. CM Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because it presented an invalid value for the guaranteed minimum upstream channel bitrate field.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-4-INVALID_MODEM_CONFIGURATION_SETTING_FORMAT
%UBR7200-4-INVALID_MODEM_CONFIGURATION_SETTING_FORMAT
%UBR10000-4-INVALID_MODEM_CONFIGURATION_SETTING_FORMAT:
<133>CMTS[DOCSIS]:<73011700> Invalid Modem Capabilities configuration setting. CM
Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-invalid-modem-capabilities(207) because it presented an invalid value for the capabilities field.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. In particular, look for an invalid combination of modem capabilities, or capabilities that are inconsistent with the services requested in the REG-REQ message. Reboot the cable modem.

```
%UBR7100-3-INVALIDSID
%UBR7200-3-INVALIDSID
%UBR10000-3-INVALIDSID: [chars]: Invalid sid [dec] for mac address [enet]
```

Explanation The indicated cable modem is using an invalid SID.

Recommended Action Check for possible IP address spoofing. Reboot this cable modem.

```
%UBR7100-3-INVALIDSIDPOSITION
%UBR7200-3-INVALIDSIDPOSITION
%UBR10000-3-INVALIDSIDPOSITION: Invalid SID ([dec]) position for interface
[chars]: CM [enet]: Is used by CM [enet] SFID [dec] SID [dec]. SID container info:
start [dec] end [dec]
```

Explanation The cable interface could not assign the new Service ID (SID) because it is already in use. This typically indicates a software error, in which a cable interface had old SID information that was not completely cleaned out before. This might happen during an HCCP switchover when the router was unable to completely synchronize the two cable interface line cards before the switchover occurred.

Recommended Action The cable interface probably has run out of available resources or has reached its maximum SID allocation of 8191 SIDs. Assign new cable modems to other cable interfaces.

```
%UBR7100-4-INVALID_SID
%UBR7200-4-INVALID_SID
%UBR10000-4-INVALID_SID: <133>CMTS[DOCSIS]:<73010200> REG REQ has Invalid SID or
not in use. CM Mac Addr [enet]
```

Explanation The specified cable modem sent a registration request (REG-REQ) message with a SID that is either out of range or that the CMTS has not yet issued.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem.

```
%UBR7100-4-INVALID_UPSTREAM_PRIORITY_FORMAT
%UBR7200-4-INVALID_UPSTREAM_PRIORITY_FORMAT
%UBR10000-4-INVALID_UPSTREAM_PRIORITY_FORMAT: <133>CMTS[DOCSIS]:<73011400> Bad
US Priority Configuration - Invalid format. CM Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because it presented an invalid value for the upstream priority field.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem.

```
%UBR7100-5-KEEPALIVE
%UBR7200-5-KEEPALIVE
%UBR10000-5-KEEPALIVE: Keepalive shutting down interface [chars].
```

Explanation No activity detected within the Keepalive timeout period on the interface.

Recommended Action Check the RF path for noise or other failure.

```
%UBR7100-3-KEY_REJECT_NO_INFORMATION
%UBR7200-3-KEY_REJECT_NO_INFORMATION
%UBR10000-3-KEY_REJECT_NO_INFORMATION: <132>CMTS[DOCSIS]:<66050102> Key Reject No
Information, CM Mac Address [enet]
```

Explanation The CMTS rejected the cable modem's attempt to register for BPI or BPI+ encryption.

Recommended Action Check the key configuration on the CMTS and cable modem.

```
%UBR7100-3-KEY_REJECT_UNAUTHORIZED_SAID
%UBR7200-3-KEY_REJECT_UNAUTHORIZED_SAID
%UBR10000-3-KEY_REJECT_UNAUTHORIZED_SAID: <132>CMTS[DOCSIS]:<66050103> Key
Reject Unauthorized SAID. CM Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's attempt to register for BPI or BPI+ encryption because the CM presented an unauthorized Security Authorization ID (SAID).

Recommended Action Check the BPI configuration on the CMTS and cable modem.

```
%UBR7200-3-L2VPNNOTSUPPORTED: L2 VPN ATM-VC mapping not currently supported on
mc28u cards. CM MAC %e.
```

Explanation The Cisco uBR-MC28U/X cable interface line card does not support the Transparent LAN Service over Cable feature (which is enabled using the **cable l2-vpn-service atm-vc** command), but the **cable vc-map** command has been used to map traffic from a cable modem that is using the Cisco uBR-MC28U/X card.

Recommended Action Disable the Transparent LAN Service over Cable feature for the specified cable modem that is using the Cisco uBR-MC28U/X card, using the **no cable vc-map** command. If a later Cisco IOS Release is available for the Cisco uBR7246VXR router, check to see if this restriction has been removed, and if so, upgrade the Cisco IOS software on the router.

```
%UBR7100-4-LB_MODEM_FAILED
%UBR7200-4-LB_MODEM_FAILED
%UBR10000-4-LB_MODEM_FAILED: Failed to move modem [enet] from [chars] to [chars].
```

Explanation The CMTS was trying to load-balance the two indicated interfaces, but was unable to move the specified cable modem from its current interface to the new interface after five attempts.

Recommended Action Verify that both interfaces are connected and passing traffic. Also look for any possible RF noise problems. Check the **cable load-balance group** configuration to ensure that the two downstreams or upstreams are combined in the same node and share the same physical connectivity (which is required when interfaces are part the same load-balance group).

```
%UBR7100-3-LB_IF_DISABLED
%UBR7200-3-LB_IF_DISABLED
%UBR10000-3-LB_IF_DISABLED: Disabled interface [chars]
```

Explanation The CMTS load-balancing subsystem disabled the indicated cable interface, because it could not move cable modems either to it or from it.

Recommended Action Verify that the interface is connected and passing traffic. Also look for any possible RF noise problems. Check the **cable load-balance group** configuration to ensure that the interface's load-balance group contains only those interfaces that are combined in the same node and share the same physical connectivity (which is required when interfaces are part the same load-balance group).

```
%UBR7100-6-LOS
%UBR7200-6-LOS
%UBR10000-6-LOS: Cable clock [chars] reference Loss of Signal
```

Explanation The clock reference was lost.

Recommended Action Check the reference source.

```
%UBR7200-0-LOWPOWERCPU: uBR requires CPU card type NPE150 or higher
```

Explanation The NPE-100 processor is not supported for the Cisco uBR7200 series router.

Recommended Action Upgrade the CPU card to an NPE150 or higher processor.

```
%UBR7100-3-MACADDRERR
%UBR7200-3-MACADDRERR
%UBR10000-3-MACADDRERR: DHCP Msg with non unicast MAC address. Master Interface
[chars] Input Interface [chars] SID = [dec] MAC = [enet]
```

Explanation An internal software error may have occurred.

Note In one case, this system message is not derived from a software error. Any broadcast address, multicast address or zero MAC source address triggers such messages to reflect an error in the DHCP packet received. A hexadecimal SID value of all Fs is shown when the Cisco CMTS is unable to map a MAC address to a particular cable modem. There is no software error in this case.

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:

http://cisco.com/en/US/products/hw/cable/ps2217/products_system_message_guide09186a0080134033.html

```
%UBR7100-4-MACBLKSIZE
%UBR7200-4-MACBLKSIZE
%UBR10000-4-MACBLKSIZE: Unknown MAC address block size.
```

Explanation The data stored in the midplane is bad or incomplete.

Recommended Action Contact your Cisco technical support representative to update your system.

```
%UBR7100-6-MACCLTCLR: Enable mac mgmt msg processing on [chars]
%UBR7200-6-MACCLTCLR: Enable mac mgmt msg processing on [chars]
%UBR10000-6-MACCLTCLR: Enable mac mgmt msg processing on [chars]
```

Explanation The Cisco CMTS suspends the sending of DOCSIS MAC-layer messages on a cable interface when it begins an N+1 (1:n) switchover to prevent the possible loss or duplication of these messages and their responses during the switchover process. After the switchover, the processor reenables the sending of the DOCSIS MAC-layer messages on the interface to resume normal operations.

Recommended Action No action is needed. In software releases prior to Cisco IOS Release 12.2(15)BC2, this message could appear for slots without an installed line card, or for cable interface line cards that do not have any cable modems that are currently online. If so, this message can be ignored, or you can upgrade the Cisco CMTS to Cisco IOS Release 12.2(15)BC2 or later release.

```
%UBR7100-3-MANUFACTURE_CA_CM_CERTIFICATE_FORMAT_ERROR
%UBR7200-3-MANUFACTURE_CA_CM_CERTIFICATE_FORMAT_ERROR
%UBR10000-3-MANUFACTURE_CA_CM_CERTIFICATE_FORMAT_ERROR: <133>CMTS[DOCSIS]:
Manufacture CA Certificate Format Error
```

Explanation The cable modem attempted to register with an invalid manufacturer's digital certificate. The certificate could contain an invalid signature, or the current date and time are outside of the certificate's valid operating range.

Recommended Action Use the **show clock** on the CMTS to verify that the date and time on the CMTS are set correctly. If the date and time are not correct, and if you are using an Network Time Protocol (NTP) or Simple Network Time Protocol (SNTP) time-of-day server, verify that the server is operational and reachable. If you are not using a time-of-day server, use the **clock set** command to set it to the current date and time, and then use the **clock update-calendar** command to update the internal clock. If the CMTS clock is correct, check that the cable modem contains a valid manufacturer's certificate. If necessary, upgrade the cable modem's software and reboot the cable modem.

```
%UBR7100-3-MAP_REJECT_DS_TRAFFIC_FLOW_NOT_MAPPED
%UBR7200-3-MAP_REJECT_DS_TRAFFIC_FLOW_NOT_MAPPED
%UBR10000-3-MAP_REJECT_DS_TRAFFIC_FLOW_NOT_MAPPED: <132>CMTS[DOCSIS]:<66060510>
Map Reject - Downstream traffic flow not mapped to BPI+SAID, CM Mac Addr [enet]
```

Explanation The CMTS rejected a MAP request from a cable modem because its downstream service flow is not mapped to an existing SAID, as required for BPI+ encryption.

Recommended Action If the problem persists, reboot the cable modem and check the cable modem for possible hardware or software problems.

```
%UBR7100-3-MAP_REJECT_NOT_AUTH_DS_TRAFFIC
%UBR7200-3-MAP_REJECT_NOT_AUTH_DS_TRAFFIC
%UBR10000-3-MAP_REJECT_NOT_AUTH_DS_TRAFFIC: <132>CMTS[DOCSIS]:<66060509> Map
Reject - Not Authorized for requested downstream traffic flow. CM Mac Addr [enet]
```

Explanation The CMTS rejected a MAP request from a cable modem because it is not authorized for the requested downstream service flow.

Recommended Action Reboot the cable modem. If the problem persists, check for a possible theft-of-service attack.

```
%UBR7100-3-MAPPED_TO_EXISTING_SAID
%UBR7200-3-MAPPED_TO_EXISTING_SAID
%UBR10000-3-MAPPED_TO_EXISTING_SAID: <132>CMTS[DOCSIS]:<66060600> Mapped to
existing SAID, CM Mac Addr [enet]
```

Explanation A cable modem attempted to register for BPI+ encryption using a Security Association ID (SAID) that is already assigned to another cable modem.

Recommended Action Reboot the cable modem.

```
%UBR7100-6-MAP_UPSTREAM_BW_ALLOCATION
%UBR7200-6-MAP_UPSTREAM_BW_ALLOCATION
%UBR10000-6-MAP_UPSTREAM_BW_ALLOCATION: A transmit opportunity was missed because
MAP arrived too late
```

Explanation A cable modem missed an opportunity to transmit on the upstream because its bandwidth request MAC message arrived too late.

Recommended Action This problem is expected to occur occasionally in normal networks. If the problem persists with a particular cable modem, reboot the cable modem, and check for possible hardware or software problems with that cable modem. If this problem occurs with many cable modems, check the cable plant for RF transmission and noise ingress problems.

```
%UBR7100-6-MAXBUSRTADJUST
%UBR7200-6-MAXBUSRTADJUST
%UBR10000-6-MAXBUSRTADJUST: [char] burst's maximum burst size in mod profile [dec]
is adjusted to [dec] mini-slots.
```

Explanation The guard burst size for the specified modulation profile on the indicated interface has been changed to the specified value.

Recommended Action No action is needed.

```
%UBR7100-5-MAXHOST
%UBR7200-5-MAXHOST
%UBR10000-5-MAXHOST: Interface [chars], New host with IP address [IP_address] and
MAC [enet] on SID [dec] (CM [enet]) is ignored.
```

Explanation The maximum number of devices that can be attached to the specified cable modem has been exceeded. Therefore, the device with the specified IP address will not be allowed to come online.

Recommended Action No action is needed. If the problem persists, contact the user of this particular cable modem and inform them of the maximum number of hosts for their cable modem.

Tip This condition can occur, even when the “Number of CPE IPs“ field displayed by the **show cable modem** *mac-address* **verbose** command indicates that the maximum number of hosts has not yet been reached. This can occur if one or more hosts has an IP address that is not yet known to the Cisco CMTS router.

```
%UBR7100-4-MIN_UPSTREAM_CHANNEL_BIT_RATE_EXCEEDS_MAX
%UBR7200-4-MIN_UPSTREAM_CHANNEL_BIT_RATE_EXCEEDS_MAX
%UBR10000-4-MIN_UPSTREAM_CHANNEL_BIT_RATE_EXCEEDS_MAX:
<133>CMTS[DOCSIS]:<73011501> Bad Guaranteed Min US Channel Bit Rate Configuration
setting - Exceed Max US Bit Rate. CM Mac Addr [enet]
```

Explanation The CMTS rejected the cable modem's registration request because its guaranteed minimum upstream channel bitrate field is greater than the maximum upstream bitrate field.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-3-MISSING_BP_CONFIGURATION_SETTING_TLV
%UBR7200-3-MISSING_BP_CONFIGURATION_SETTING_TLV
%UBR10000-3-MISSING_BP_CONFIGURATION_SETTING_TLV: <132>CMTS[DOCSIS]:<66010100>
Missing BP Configuration Setting TLV, TLV Type [enet]
```

Explanation The cable modem did not include the BPI or BPI+ field in its registration request.

Recommended Action Check the DOCSIS configuration file that this cable modem is using and correct any errors. Reboot the cable modem. If the problem persists, it could indicate a problem with this particular cable modem, or a possible theft-of-service attack by someone using a modified configuration file.

```
%UBR7100-3-MONITOR
%UBR7200-3-MONITOR
%UBR10000-3-MONITOR: Interface [chars], Failed to send monitored packets
```

Explanation An internal software error 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.

```
%UBR7100-3-MONITOR_ACCESS_FILTER
%UBR7200-3-MONITOR_ACCESS_FILTER
%UBR10000-3-MONITOR_ACCESS_FILTER: Null access list
```

Explanation An internal software error 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.

```
%UBR7100-3-MONITOR_EMPTY
%UBR7200-3-MONITOR_EMPTY
%UBR10000-3-MONITOR_EMPTY: Unable to allocate packet with rx_type = [dec]
```

Explanation An internal software error 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.

```
%UBR7100-4-NOCFGFILE
%UBR7200-4-NOCFGFILE
%UBR10000-4-NOCFGFILE: Cannot read modem config file [chars] from [integer]:
[chars]
```

Explanation The CMTS could not obtain the DOCSIS configuration file for this cable modem from the TFTP server. This message will occur when the dynamic secret feature is enabled on the cable interface with the **cable dynamic-secret** command.

Recommended Action Verify that the CMTS has network connectivity with the TFTP server, and that the specified DOCSIS configuration file is available on the TFTP server. Check that the DHCP server is correctly configured to send the proper configuration filename in its DHCP response to the cable modem. Also verify that the DOCSIS configuration file is correctly formatted.

This problem could also occur if the TFTP server is offline or is overloaded to the point where it cannot respond promptly to new requests. It might also be seen if the interface between the CMTS and TFTP server is not correctly configured and flaps excessively.

Note This error indicates a problem with the provisioning system outside of the Cisco CMTS. Disabling the Dynamic Shared Secret feature will not clear the fault, nor will it allow cable modems to come online. You must first correct the problem with the provisioning system.

```
%UBR7200-4-NOCPUVER: Invalid CPU ID, assuming revision 1
```

Explanation The CPU Revision ID is unreadable.

Recommended Action Replace or upgrade the CPU board.

```
%UBR7100-3-NOFORK
%UBR7200-3-NOFORK
%UBR10000-3-NOFORK: Could not start Spectrum Management process
```

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 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-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR7100-3-NOMAC
%UBR7200-3-NOMAC
%UBR10000-3-NOMAC: Can't allocate MAC address for interface [int]/[int]
```

Explanation The system is out of available MAC addresses.

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

```
%UBR7100-3-NOMEM
%UBR7200-3-NOMEM
%UBR10000-3-NOMEM: [chars]
```

Explanation An internal software error has occurred because the processor has run out of system memory cannot continue with one or more system processes.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Copy the error message exactly as it appears on the console or in the system log, and make a note of whatever commands you might have been giving when the error message appeared. 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.

```
%UBR7100-3-NOMORESIDS
%UBR7200-3-NOMORESIDS
%UBR10000-3-NOMORESIDS: Maximum number of SIDS have been allocated for interface
[chars]: CM [enet]: SID container info: start [dec] end [dec]
```

Explanation The maximum number of Service IDs (SIDs) has been allocated to the specified cable interface line card. A single cable interface can support a maximum of 8191 SIDs, and typically will not run out of SIDs because most cable interfaces support a much smaller number of cable modems. However, if a significant number of modems come online and go offline within a short period of time, the cable interface line card might run out of SIDs for up to a maximum of 24 hours.

Recommended Action Assign new cable modems to other cable interface line cards. Use the **clear cable modem** command to remove offline cable modems from the CMTS internal tables.

```
%UBR7100-5-NOMULTIPLEUPSTREAMS
%UBR7200-5-NOMULTIPLEUPSTREAMS
%UBR10000-5-NOMULTIPLEUPSTREAMS: Upstream Channel Change not valid for interface
[chars]
```

Explanation Changing upstream channels is not supported on cable interface line cards that do not support multiple upstreams (for example, the Cisco uBR-MC11C line card or Cisco uBR7111 router).

Recommended Action Use this command on a cable interface line card that supports multiple upstreams, such as the Cisco uBR-MC28C cable interface line card or Cisco uBR7114 router.

```
%UBR7100-3-NOTCMTS
%UBR7200-3-NOTCMTS
%UBR10000-3-NOTCMTS: Device reported [hex]
```

Explanation A hardware failure involving the specified device has occurred.

Recommended Action Replace the defective hardware.

```
%UBR7100-4-NO_RANGING_REQUESTS
%UBR7200-4-NO_RANGING_REQUESTS
%UBR10000-4-NO_RANGING_REQUESTS: <133>CMTS[DOCSIS]:<82010100> No Ranging Requests
received from POLLED CM (CMTS generated polls)
```

Explanation A cable modem has not generated any periodic ranging requests (RNG-REQ), so the CMTS has polled it, but still has not received any RNG-REQ messages from it.

Recommended Action No action needed if this cable modem has been powered down or taken offline. Otherwise, look for possible noise or other RF plant problems on the upstream channel.

```
%UBR7100-4-NO_RNG_REQ_TIMEOUT_SID
%UBR7200-4-NO_RNG_REQ_TIMEOUT_SID
%UBR10000-4-NO_RNG_REQ_TIMEOUT_SID: <133>CMTS[DOCSIS]:<82010400> Failed to
receive Periodic RNG-REQ from modem (SID [dec]), timing-out SID
```

Explanation The CMTS failed to receive a required periodic ranging request (RNG-REQ) from the cable modem with the indicated SID.

Recommended Action No action is needed if this cable modem has been powered down or taken offline. Otherwise, look for possible noise or other RF plant problems on the upstream channel.

```
%UBR7100-5-NOTIMPLMENTEDMNCSMSG
%UBR7200-5-NOTIMPLMENTEDMNCSMSG
%UBR10000-5-NOTIMPLMENTEDMNCSMSG: Not implemented DOCSIS MESSAGE received from a
Cable Modem for interface [chars]
```

Explanation This cable modem does not support the type of message that is specified in the error message string. This cable modem may not be DOCSIS-compliant, or it might be running a DOCSIS version that is not supported by the CMTS (for example, running DOCSIS 2.0 software with a DOCSIS 1.1 CMTS).

Recommended Action This message is informational only. To ensure that there is no 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.

```
%UBR7100-3-NULLMAPPTR
%UBR7200-3-NULLMAPPTR
%UBR10000-3-NULLMAPPTR: Cannot send maps as current_map ptr is NULL,
ds->[hex],current_map->[hex]: [chars]
```

Explanation An internal software error has occurred. This error may have been caused by a memory problem.

Recommended Action Check the available memory. Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. If necessary, add more memory to the system.

```
%UBR7100-4-OUT_OF_RANGE_US_PRIORITY_CONFIGURATION
%UBR7200-4-OUT_OF_RANGE_US_PRIORITY_CONFIGURATION
%UBR10000-4-OUT_OF_RANGE_US_PRIORITY_CONFIGURATION: <133>CMTS[DOCSIS]:<73011401>
Bad US Priority Configuration - Setting out of Range. CM Mac Addr <[enet]>
```

Explanation The specified cable modem requested an upstream traffic priority that is outside of the valid range of 0 through 7, with 6 and 7 typically being reserved for system use.

Recommended Action Verify that the DOCSIS configuration file being used by the cable modem contains valid upstream priority information.

```
%UBR7100-4-OUT_OF_RANGE_MAX_UPSTREAM_BURST
%UBR7200-4-OUT_OF_RANGE_MAX_UPSTREAM_BURST
%UBR10000-4-OUT_OF_RANGE_MAX_UPSTREAM_BURST: <133>CMTS[DOCSIS]:<73011601> Bad
Max US CH Transmit Burst Configuration setting - Out of Range. CM Mac Addr <[enet]>
```

Explanation The specified cable modem requested a maximum upstream transmit burst that is outside the valid range.

Recommended Action Verify that the DOCSIS configuration file being used by the cable modem contains a valid value for the maximum upstream transmit burst parameter. Check the other parameters in the configuration file to ensure they have the correct format.

```
%UBR7100-4-OUT_OF_RANGE_CONFIG_FILE_PARAMETERS
%UBR7200-4-OUT_OF_RANGE_CONFIG_FILE_PARAMETERS
%UBR10000-4-OUT_OF_RANGE_CONFIG_FILE_PARAMETERS: <133>CMTS[DOCSIS]:<73011800>
Configuration file contains parameter with the value outside of the range. CM Mac
Addr <[enet]>
```

Explanation The DOCSIS configuration file for this particular cable modem contains a parameter that is configured for an invalid value.

Recommended Action Check the DOCSIS configuration file to ensure it contains valid values for all parameters. In particular, if this is a DOCSIS 1.0 cable modem, verify that the configuration file is not using a DOCSIS 1.1 configuration.

```
%UBR7100-3-OVERLAPIP
%UBR7200-3-OVERLAPIP
%UBR10000-3-OVERLAPIP: Interface [chars], IP address [IP_address] from MAC [enet]
is already in use. SID = [dec]
```

Explanation A duplicate IP address has been detected on the cable interface.

Recommended Action Check DHCP server configuration, or look for a possible spoofing attempt.

```
%UBR7100-3-OVERLAPIP_CM
%UBR7200-3-OVERLAPIP_CM
%UBR10000-3-OVERLAPIP_CM: Interface [chars], IP address [IP_address] assigned to
CM [enet] has been reassigned.
```

Explanation An IP address that was previously assigned to one cable modem has been reassigned to another cable modem.

Recommended Action Check DHCP server configuration, or look for a possible spoofing attempt.

```
%UBR7100-5-OVERLIMIT
%UBR7200-5-OVERLIMIT
%UBR10000-5-OVERLIMIT: Interface [chars] Current total reservation of [dec] bps
on Port U[dec], exceeds its maximum configured reservation limit of [dec] bps
```

Explanation The currently reserved capacity on the upstream channel already exceeds its virtual reservation capacity, based on the configured subscription level limit. Increasing the subscription level limit on the current upstream channel will place you at risk of being unable to guarantee the individual reserved rates for modems since this upstream channel is already oversubscribed.

Recommended Action Load-balance the modems that are requesting the reserved upstream rate on another upstream channel.

```
%UBR7100-3-OWNERR
%UBR7200-3-OWNERR
%UBR10000-3-OWNERR: CMTS([dec]/[dec]), Buffer ownership error, pak=[hex].
```

Explanation A hardware failure with the indicated interface has occurred.

Recommended Action Replace the defective line card.

```
%UBR7200-3-PKTCBL_INVALID_GATE_ID
%UBR10000-3-PKTCBL_INVALID_GATE_ID: if_index_db is null, index = [dec], gid =
[dec]
```

Explanation The PacketCable subsystem could not find the specified gate ID (gid) in its internal PacketCable database. A software error occurred either on the Cisco CMTS or on the PacketCable MTA device.

Recommended Action Verify that you are running released software on the CMTS. If so, 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.

```
%UBR7100-6-PREAMLENADJUST
%UBR7200-6-PREAMLENADJUST
%UBR10000-6-PREAMLENADJUST: [chars] burst's preamble length in modulation profile
[dec] is adjusted to the operable value.
```

Explanation The preamble length in the burst profile has adjusted to the valid value.

Recommended Action No action is needed.

```
%UBR7100-6-PREAMLENCHECK
%UBR7200-6-PREAMLENCHECK
%UBR10000-6-PREAMLENCHECK: preamble length exceeds total of 128 byte
```

Explanation The preamble length in the burst profile is greater than 128 bytes. This is an informational message that occurs when differential encoding is being used on cable interface line cards (such as the Cisco uBR-MC28U/X) that support DOCSIS 2.0 modulation profiles.

Recommended Action No action is needed.

```
%UBR7200-4-RECALLED_NPE: Old version NPE-175/225 with Rev = [hex] system
controller. Contact upgrades-info@cisco.com for replacement
```

Explanation An NPE-175/225 board has been recalled because of an error in the system controller chip.

Recommended Action Replace the NPE-175/225 board.

```
%UBR7100-6-REFLOCK
%UBR7200-6-REFLOCK
%UBR10000-6-REFLOCK: Cable clock locked to [chars] reference
```

Explanation The clock card has locked onto its clock source.

Recommended Action No action is needed.

```
%UBR7100-4-REG_ACK_REJ_MSG_SYNTAX_ERROR
%UBR7200-4-REG_ACK_REJ_MSG_SYNTAX_ERROR
%UBR10000-4-REG_ACK_REJ_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<73030300> REG ACK
rejected message syntax error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration acknowledge (REG-ACK) message with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_ACK_REJ_UNSPECIFIED
%UBR7200-4-REG_ACK_REJ_UNSPECIFIED
%UBR10000-4-REG_ACK_REJ_UNSPECIFIED: <133>CMTS[DOCSIS]:<73030200> REG ACK
rejected unspecified reason. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration acknowledgement (REG-ACK) with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-REGISTRATION_ABORT_NO_REG_ACK
%UBR7200-4-REGISTRATION_ABORT_NO_REG_ACK
%UBR10000-4-REGISTRATION_ABORT_NO_REG_ACK: <133>CMTS[DOCSIS]:<73030100> REG
aborted,no REG-ACK. CM Mac Addr <[enet]>
```

Explanation The CMTS has rejected the cable modem's registration request (REG-REQ) because the required acknowledgement (REQ-ACK) has not been received.

Recommended Action No action is needed.

```
%UBR7100-4-REGISTRATION_BEFORE_TFTP
%UBR7200-4-REGISTRATION_BEFORE_TFTP
%UBR10000-4-REGISTRATION_BEFORE_TFTP: Registration request unexpected: Cable
Modem did not attempt TFTP. Registration Rejected. CM Mac Addr <[enet]>
```

Explanation A cable modem has attempted to register with the CMTS before downloading a DOCSIS configuration file through the cable interface. The registration request (REG-REQ) has been rejected.

Recommended Action This error message appears when the **cable tftp-enforce** command has been applied to a cable interface to require that all cable modems must download a DOCSIS configuration file over the cable interface before being allowed to register. Check to ensure that this cable modem is not running old software that caches the previously-used configuration file. Also check for a possible theft-of-service attempt by a user attempting to download a modified DOCSIS configuration file from a local TFTP server.

```
%UBR7100-4-REGISTRATION_BEFORE_TFTP_MARK
%UBR7200-4-REGISTRATION_BEFORE_TFTP_MARK
%UBR10000-4-REGISTRATION_BEFORE_TFTP_MARK: Registration request unexpected: Cable
Modem did not attempt TFTP. Modem marked with #. CM Mac Addr <[enet]>
```

Explanation A cable modem has attempted to register with the CMTS before downloading a DOCSIS configuration file through the cable interface.

Recommended Action This error message appears when the **cable tftp-enforce mark** command has been applied to a cable interface to ensure that all cable modems download a DOCSIS configuration file over the cable interface before registering. The cable modem has been allowed to register and come online, but it will be marked with a pound sign (#) in **show cable modem** displays so that the

situation can be investigated. Check to ensure that this cable modem is not running old software that caches the previously-used configuration file. Also check for a possible theft-of-service attempt by a user attempting to download a modified DOCSIS configuration file from a local TFTP server.

```
%UBR7100-4-REG_REJ_AUTH_FAIL_CMTS_MIC_INVALID
%UBR7200-4-REG_REJ_AUTH_FAIL_CMTS_MIC_INVALID
%UBR10000-4-REG_REJ_AUTH_FAIL_CMTS_MIC_INVALID: <133>CMTS[DOCSIS]:<73000500>
Registration rejected authentication failure: CMTS MIC invalid. CM Mac Addr
<[enet]>
```

Explanation The cable modem's registration request (REG-REQ) has been rejected because of an authentication failure due to an invalid Message Integrity Check (MIC).

Recommended Action Verify that the cable modem is using a valid DOCSIS configuration file. Also verify that a user is not attempting a theft-of-service attack by using a rogue configuration file that does not contain any MIC values.

```
%UBR7100-4-REG_REQ_AUTH_FAILURE
%UBR7200-4-REG_REQ_AUTH_FAILURE
%UBR10000-4-REG_REQ_AUTH_FAILURE: <133>CMTS[DOCSIS]:<73020109> REG REQ rejected -
Authorization failure. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-authorization-failure(24) because the request was rejected by the DOCSIS authorization module.

Recommended Action Verify that the cable modem is properly configured for BPI+ operations. Also verify that the CMTS date and time of day are correctly set so that the CMTS can correctly interpret the BPI+ digital certificates' date fields.

```
%UBR7100-4-REG_REQ_DUPLICATE_REF_ID_INDEX
%UBR7200-4-REG_REQ_DUPLICATE_REF_ID_INDEX
%UBR10000-4-REG_REQ_DUPLICATE_REF_ID_INDEX: <133>CMTS[DOCSIS]:<73020107> REG REQ
rejected duplicate reference-ID or index in message. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-duplicate-reference-ID-or-index-in-message(18) because the message used a service flow reference, classifier reference, service flow ID (SFID), or classifier ID twice in an illegal way.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_MAJOR_CLASSIFIER_ERROR
%UBR7200-4-REG_REQ_MAJOR_CLASSIFIER_ERROR
%UBR10000-4-REG_REQ_MAJOR_CLASSIFIER_ERROR: <133>CMTS[DOCSIS]:<73020111> REG REQ
rejected - Major classifier error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-major-classifier-error(201) because the request either did not have a classifier reference, or because it did not specify both a classifier ID and a service flow ID (SFID). These classifier errors were the only major errors in the request.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_MAJOR_MULTIPLE_ERRORS
%UBR7200-4-REG_REQ_MAJOR_MULTIPLE_ERRORS
%UBR10000-4-REG_REQ_MAJOR_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<73020113> REG REQ
rejected - Multiple major errors. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-major-multiple-errors(203) because the request included more than one major error with service flows, classifiers, and PHS rules.

Recommended Action The cable modem should reregister. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-REG_REQ_MAJOR_PHS_RULE_ERROR
%UBR7200-4-REG_REQ_MAJOR_PHS_RULE_ERROR
%UBR10000-4-REG_REQ_MAJOR_PHS_RULE_ERROR: <133>CMTS[DOCSIS]:<73020112> REG REQ
rejected - Major PHS rule error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a reject-major-PHS-rule-error(202) because the request did not contain both a service flow reference/ID and a classifier reference/ID. The PHS errors were the only major errors in the request.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-REG_REQ_MAJOR_SRV_FLOW_ERROR
%UBR7200-4-REG_REQ_MAJOR_SRV_FLOW_ERROR
%UBR10000-4-REG_REQ_MAJOR_SRV_FLOW_ERROR: <133>CMTS[DOCSIS]:<73020110> REG REQ
rejected - Major service flow error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-major-service-flow(200) because the request did not contain either a service flow reference or service flow ID in a service flow TLV. The service flow errors were the only major errors in the request.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_MSG_SYNTAX_ERROR
%UBR7200-4-REG_REQ_MSG_SYNTAX_ERROR
%UBR10000-4-REG_REQ_MSG_SYNTAX_ERROR: <133>CMTS[DOCSIS]:<73020114> REG REQ
rejected - Message syntax error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG -REQ) with a confirmation code of reject-message-syntax-error(204) because its format does not conform to the DOCSIS 1.1 specification. A common error is that a TLV in the message has the wrong length.

Recommended Action The cable modem should reregister. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_MSG_TOO_BIG
%UBR7200-4-REG_REQ_MSG_TOO_BIG
%UBR10000-4-REG_REQ_MSG_TOO_BIG: <133>CMTS[DOCSIS]:<73020116> REG REQ rejected -
Message too big. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG -REQ) with a confirmation code of reject-message-too-big(206) because the message needed to respond to the request would exceed the maximum allowable length.

Recommended Action The cable modem should reregister. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_MULTIPLE_ERRORS
%UBR7200-4-REG_REQ_MULTIPLE_ERRORS
%UBR10000-4-REG_REQ_MULTIPLE_ERRORS: <133>CMTS[DOCSIS]:<73020106> REG REQ
rejected - Multiple errors. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-multiple-errors(13) because the request message had multiple errors in it.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_PARAM_INVALID
%UBR7200-4-REG_REQ_PARAM_INVALID
%UBR10000-4-REG_REQ_PARAM_INVALID: <133>CMTS[DOCSIS]:<73020108> REG REQ rejected
parameter invalid for context. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because the request contained a parameter field that is not valid for this particular request.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REG_REQ_PRIM_SRV_FLOW_ERROR
%UBR7200-4-REG_REQ_PRIM_SRV_FLOW_ERROR
%UBR10000-4-REG_REQ_PRIM_SRV_FLOW_ERROR: <133>CMTS[DOCSIS]:<73020115> REG REQ
rejected - Primary service flow error. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) or response (REG-RSP) because one of the messages did not define the required primary service flow, or a primary service flow was defined but not specified as active.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file.

```
%UBR7100-4-REQUIRED_TLV_ABSENT
%UBR7200-4-REQUIRED_TLV_ABSENT
%UBR10000-4-REQUIRED_TLV_ABSENT: <133>CMTS[DOCSIS]:<73010400> REG REQ missed
Required TLV's. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) because at least one required TLV field was not present in the message.

Recommended Action The cable modem should reregister. If the problem persists, Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that you are running released software on the CMTS.

```
%UBR7100-4-REQUIRED_PARAMETER_NOT_PRESENT
%UBR7200-4-REQUIRED_PARAMETER_NOT_PRESENT
%UBR10000-4-REQUIRED_PARAMETER_NOT_PRESENT: <133>CMTS[DOCSIS]:<73020104> REG REQ
rejected, Required parameter not present. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-required-parameter-not-present(8) because at least one required parameter was not present in the message.

Recommended Action Reissue the command with all required parameters. In particular, if BPI+ is being used, specify a proper key sequence number and HMAC-digest value. Verify that the cable modem is running DOCSIS 1.1-certified software. Verify that you are running released software on the CMTS.

```
%UBR7100-4-RETRIES_EXHAUSTED_POLL_CM
%UBR7200-4-RETRIES_EXHAUSTED_POLL_CM
%UBR10000-4-RETRIES_EXHAUSTED_POLL_CM: <133>CMTS[DOCSIS]:<82010200> Retries
exhausted for polled CM [dec]. After 16 R101.0 errors.
```

Explanation The CMTS has not received any ranging requests (RNG-REQ) from a cable modem. The CMTS has polled the cable modem the maximum number of times (16), but each poll has timed out with a NO_RANGING_REQUESTS error (DOCSIS event ID 82010100).

Recommended Action No action in needed because the cable modem has probably gone offline or has powered down. If this problem occurs for multiple cable modems, check the cable plant for noise or other RF problems.

```
%UBR7100-6-RSINTRLVBLKSIZEADJUST
%UBR7200-6-RSINTRLVBLKSIZEADJUST
%UBR10000-6-RSINTRLVBLKSIZEADJUST: [chars] burst's RS interleave block size in mod
profile [dec] is adjusted to [dec] bytes.
```

Explanation The RS interleave block size in the indicated modulation profile has been adjusted to the specified valid value.

Recommended Action No action is required.

```
%UBR7100-6-RSINTRLVDEPTHADJUST
%UBR7200-6-RSINTRLVDEPTHADJUST
%UBR10000-6-RSINTRLVDEPTHADJUST: [chars] burst's RS interleave depth in mod
profile [dec] is adjusted to [dec].
```

Explanation The RS interleave depth in the indicated modulation profile has been adjusted to the specified valid value.

Recommended Action No action is required.

```
%UBR7100-6-RSINTRLVDISABLED
%UBR7200-6-RSINTRLVDISABLED
%UBR10000-6-RSINTRLVDISABLED: [chars] burst's RS interleaver in mod profile
[dec]is auto disabled.
```

Explanation The RS interleaver in the indicated burst profile has been disabled.

Recommended Action No action is required.

```
%UBR7100-3-SA_MAP_UNSUPPORTED_CRYPTO_SUITE
%UBR7200-3-SA_MAP_UNSUPPORTED_CRYPTO_SUITE
%UBR10000-3-SA_MAP_UNSUPPORTED_CRYPTO_SUITE: <132>CMTS[DOCSIS]:<66060200>
Unsupported Crypto Suite. CM Mac Addr <[enet]>
```

Explanation The specified cable modem attempted to register for BPI+ encryption using a cryptographic suite that the CMTS does not support (such as 3DES encryption).

Recommended Action Check the DOCSIS configuration file being used by the cable modem to ensure that the BPI+ fields are correct. If available, upgrade the software on the CMTS to support the requested cryptographic feature.

```
%UBR7100-4-SERVICE_UNAVAIL_OTHER
%UBR7200-4-SERVICE_UNAVAIL_OTHER
%UBR10000-4-SERVICE_UNAVAIL_OTHER: <133>CMTS[DOCSIS]:<73000400> Service
unavailable - Other. CM Mac Addr <[enet]>
```

Explanation The CMTS has rejected the cable modem's registration request (REG-REQ) because it requested a service that is not available.

Recommended Action Check the DOCSIS configuration file being used by this cable modem to ensure that it is requesting the proper services. In particular, if the cable modem is using vendor-specific TLVs, ensure that the CMTS supports the services requested by those TLVs.

```
%UBR7100-4-SERVICE_TEMPORARILY_UNAVAILABLE
%UBR7200-4-SERVICE_TEMPORARILY_UNAVAILABLE
%UBR10000-4-SERVICE_TEMPORARILY_UNAVAILABLE: <133>CMTS[DOCSIS]:<73000402>
Service unavailable - Temporarily unavailable. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the registration request (REG-REQ) from the specified cable modem because a requested service is not available at the current time. This could happen, for example, when a cable modem is requesting a minimum guaranteed upstream rate but the CMTS does not have the bandwidth available on the upstream. However, the CMTS might have enough bandwidth available on this upstream at a later time after enough cable modems go offline.

This problem can also appear with Cisco cable modems that are running a DOCSIS 1.0+ release (Voice-over-IP in DOCSIS 1.0 cable networks), after the Cisco CMTS is upgraded to Cisco IOS Release 12.2(11)BC3, 12.2(15)BC1, or later release. To avoid interference with DOCSIS 1.1 VoIP calls, DOCSIS 1.0+ cable modems are not allowed to reserve bandwidth for VoIP calls but instead must dynamically request the needed service flows, using an IP Precedence Type-of-Service (TOS) field of 3 for the signaling service flow and a TOS value of 5 for the dynamically-created service flows. If DOCSIS 1.0+ cable modems attempt to use any other TOS value, the Cisco CMTS denies their dynamic service requests.

Recommended Action If the problem occurs only with Cisco cable modems that are running a DOCSIS 1.0+ release, verify that the vendor-specific information field (VSIF) for the IP precedence value (TLV 43, subTLV11.1) specifies a TOS field of either 3 or 5. In any case, the cable modem will reregister. If the problem persists, check the configuration and memory usage on the CMTS. Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command.

Also verify that the CMTS date and time of day are correctly set, so that the CMTS can correctly interpret the BPI+ digital certificates' date fields. You can use the **show interface cable mac-scheduler** command to see the current reservation limits on the upstream. If the problem is bandwidth-related, you can use the **cable upstream admission-control** command on the CMTS to increase the oversubscription rate on the upstream.

```
%UBR7100-4-SERVICE_PERMANENTLY_UNAVAILABLE
%UBR7200-4-SERVICE_PERMANENTLY_UNAVAILABLE
%UBR10000-4-SERVICE_PERMANENTLY_UNAVAILABLE: <133>CMTS[DOCSIS]:<73000403>
Service unavailable - Permanent. CM Mac Addr <[enet]>
```

Explanation The request was rejected with a confirmation code of reject-permanent/reject-admin(4) because the policy, configuration, or capabilities of the CMTS or cable modem do not allow this particular request. A common reason for this error message is that the cable modem attempted to register with BPI+ encryption, but a system operator has disabled BPI+ encryption on the CMTS cable interface (the **no cable privacy** command will appear in the interface's configuration). Another possible reason is that a DOCSIS 1.0 cable modem is attempting to register with a Maximum Upstream Burst Size set to 0 (unlimited) or to a value greater than 2000 when concatenation is enabled (because this could interfere with the delivery of real-time traffic, such as VoIP calls).

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and a valid DOCSIS configuration file. Verify that the CMTS is running released software. If necessary, change the CMTS configuration to allow this request. If this is related to BPI+ encryption, either

change the cable modem's DOCSIS configuration file so that it disables BPI+ encryption (set TLV 29, Privacy Enable, to 0), or enable BPI+ encryption on the CMTS cable interface using the **cable privacy** interface configuration command.

```
%UBR7100-3-SIDERRORHCCP
%UBR7200-3-SIDERRORHCCP
%UBR10000-3-SIDERRORHCCP: Tried to allocate New SID during Failover for interface
[chars]: CM [enet]: SID container info: start [dec] end [dec]
```

Explanation The cable interface could not assign the new Service ID (SID) to a cable modem during an HCCP redundancy switchover from one cable interface to another.

Recommended Action The cable interface probably has run out of available resources or has reached its maximum SID allocation of 8191 SIDs. Assign new cable modems to other cable interfaces.

```
%UBR7100-4-SIDWITHOUTCM
%UBR7200-4-SIDWITHOUTCM
%UBR10000-4-SIDWITHOUTCM: SID [dec] not bound to any CM.
```

Explanation This particular SID is not associated with a particular CM. This typically indicates that a cable modem has gone offline but that the CMTS has not finished cleaning up its internal databases to reflect the change.

Recommended Action No action is needed. If the problem persists, check that you are running released software on the CMTS.

```
%UBR7100-3-SLOTS
%UBR7200-3-SLOTS
%UBR10000-3-SLOTS: Number of slots in chassis is undefined.
```

Explanation The data stored in the midplane is corrupted or incomplete.

Recommended Action Contact your Cisco technical support representative to update your system.

```
%UBR7100-3-SPIERRNRD
%UBR7200-3-SPIERRNRD
%UBR10000-3-SPIERRNRD: SPI PENDING NO READ DATA([chars]): spistat=[hex],
chid=[hex], cmd=[hex], regaddr=[hex]
```

Explanation A read error on the PHY chip serial communications bus has occurred. This condition indicates a defective line card.

Recommended Action Replace the defective line card.

```
%UBR7100-3-SPIERRR
%UBR7200-3-SPIERRR
%UBR10000-3-SPIERRR: SPI PENDING READ ERROR([chars]): spistat=[hex], chid=[hex],
cmd=[hex], regaddr=[hex]
```

Explanation A read error on the PHY chip serial communications bus has occurred. This condition indicates a defective line card.

Recommended Action Replace the defective line card.

```
%UBR7100-3-SPIERRRBS
%UBR7200-3-SPIERRRBS
%UBR10000-3-SPIERRRBS: SPI BUS READ [hex] BYTES SHORT([chars]): spistat=[hex],
chid=[hex], cmd=[hex], regaddr=[hex]
```

Explanation A read error on the PHY chip serial communications bus has occurred. This condition indicates a defective line card.

Recommended Action Replace the defective line card.

```
%UBR7100-3-SPIERRW
%UBR7200-3-SPIERRW
%UBR10000-3-SPIERRW: SPI PENDING WRITE ERROR([chars]): spistat=[hex], chid=[hex],
cmd=[hex], regaddr=[hex]
```

Explanation A write error on the PHY chip serial communications bus has occurred. This condition indicates a defective line card.

Recommended Action Replace the defective line card.

```
%UBR7100-3-SPIERRW_CHID
%UBR7200-3-SPIERRW_CHID
%UBR10000-3-SPIERRW_CHID: Invalid Channel ID([chars]): chid=[hex], cmd=[hex],
regaddr=[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. 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.

```
%UBR7100-3-SPOOFEDIP
%UBR7200-3-SPOOFEDIP
%UBR10000-3-SPOOFEDIP: Rejecting IP=[IP_address] [chars] sid [dec]: Address
configured on [chars]
```

Explanation The glean function on the CMTS has detected overlapping IP addresses on the indicated interface.

Recommended Action Check for possible IP address spoofing, particularly for a PC or other CPE device that is using the same IP address that has been assigned to a CMTS cable interface.

```
%UBR7100-6-SRCMP
%UBR7200-6-SRCMP
%UBR10000-6-SRCMP: Cable Clock primary reference is midplane TDM clock
```

Explanation The clock card primary reference is from the midplane TDM clock.

Recommended Action No action is needed.

```
%UBR7200-0-STACK_PROT_UNSUPPORTED
%UBR1000-0-STACK_PROT_UNSUPPORTED: test cable stack-prot is not supported on card
```

Explanation The **test cable stack-prot** command is not supported on the Cisco uBR-MC28U/X cable interface line card on the current Cisco IOS software. This command is also not supported on the Cisco uBR10012 router.

Recommended Action No action is needed.

```
%UBR7100-3-TEK_INVALID_NO_INFORMATION
%UBR7200-3-TEK_INVALID_NO_INFORMATION
%UBR10000-3-TEK_INVALID_NO_INFORMATION: <132>CMTS[DOCSIS]:<66050203> TEK Invalid
- No Information. CM Mac Addr <[enet]>
```

Explanation The CMTS has rejected the specified cable modem's registration request (REG-REQ) because its traffic exchange key (TEK) is invalid.

Recommended Action Check that the cable modem is properly configured for BPI+ operations and is using a valid DOCSIS configuration file.

```
%UBR7100-3-TEK_INVALID_INVALID_KEY_SEQUENCE_NUMBER
%UBR7200-3-TEK_INVALID_INVALID_KEY_SEQUENCE_NUMBER
%UBR10000-3-TEK_INVALID_INVALID_KEY_SEQUENCE_NUMBER:
<132>CMTS[DOCSIS]:<66050206> TEK Invalid - Invalid Key Sequence Number. CM Mac
Addr <[enet]>
```

Explanation The CMTS has rejected the specified cable modem's registration request (REG-REQ) because its traffic exchange key (TEK) contains an invalid key sequence number.

Recommended Action Check that the cable modem is properly configured for BPI+ operations and is using a valid DOCSIS configuration file. This problem has also been seen with certain cable modems that are running older versions of software. If this problem occurs with only specific cable modems, check to see if updated software is available for those modems.

```
%UBR7100-0-TEMPHIGH
%UBR7200-0-TEMPHIGH
%UBR10000-0-TEMPHIGH: [chars] measured at [chars] is too high: shutdown
temperature [chars]
```

Explanation The current temperature exceeds the maximum shutdown temperature.

Recommended Action Determine the cause of the high temperature and correct it. If you cannot immediately correct the problem, shut down the system before temperature damage can occur.

```
%UBR7100-0-TEST_CABLE
%UBR7200-0-TEST_CABLE
%UBR10000-0-TEST_CABLE: CMTS([dec]/[dec]/[dec]), schrp_cli_cmd function failed in
[chars]
```

Explanation An expected software error has likely occurred that prevents normal operations from continuing.

Recommended Action Verify that you are running released software on the CMTS. If so, 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.

```
%UBR7100-5-TIMESCH
%UBR7200-5-TIMESCH
%UBR10000-5-TIMESCH: Time scheduled event, spectrum group [int], [chars]
```

Explanation A time-scheduled reconfiguration event has occurred on the specified interface.

Recommended Action No action is needed.

```
%UBR7100-5-TRAFSHAPNOCREAT
%UBR7200-5-TRAFSHAPNOCREAT
%UBR10000-5-TRAFSHAPNOCREAT: Unable to create downstream traffic shaping queues
```

Explanation An internal software error occurred that is preventing the CMTS from creating a new queue for downstream traffic shaping.

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.

```
%UBR7100-5-TRAFSHAPPROCFAIL
%UBR7200-5-TRAFSHAPPROCFAIL
%UBR10000-5-TRAFSHAPPROCFAIL: Unable to fork downstream shaper process
```

Explanation An internal software error, or a memory error, occurred that is preventing the CMTS from creating a new downstream traffic shaping process.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. 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.

```
%UBR7100-5-TRAFSHAPBADTIMER
%UBR7200-5-TRAFSHAPBADTIMER
%UBR10000-5-TRAFSHAPBADTIMER: Bad timer expiry in downstream traffic shaper
process, Timer [hex]
```

Explanation An internal software error 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.

```
%UBR7100-4-UCC_OUT_OF_RANGE_US_CHANNEL_ID
%UBR7200-4-UCC_OUT_OF_RANGE_US_CHANNEL_ID
%UBR10000-4-UCC_OUT_OF_RANGE_US_CHANNEL_ID: <133>CMTS[DOCSIS]:<67000100>,
UCC-REQ received with invalid or out of range US channel ID.
```

Explanation A cable modem is reporting that it received an Upstream Channel Change request (UCC-REQ) that contained an upstream channel ID that is either invalid or out of the valid range.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-4-UCC_REQ_UNABLE_TO_SEND_RSP
%UBR7200-4-UCC_REQ_UNABLE_TO_SEND_RSP
%UBR10000-4-UCC_REQ_UNABLE_TO_SEND_RSP: <133>CMTS[DOCSIS]:<67000200>,UCC-REQ
received unable to send UCC-RSP, no TX opportunity.
```

Explanation A cable modem received an Upstream Channel Change request (UCC-REQ) but could not reply with the proper response because it could not obtain a timeslot on its current upstream channel.

Recommended Action Retry the UCC request.

```
%UBR7100-4-UCC_RSP_NOT_RCV_ON_CHANNEL_ID
%UBR7200-4-UCC_RSP_NOT_RCV_ON_CHANNEL_ID
%UBR10000-4-UCC_RSP_NOT_RCV_ON_CHANNEL_ID: <133>CMTS[DOCSIS]:<67010100> UCC-RSP
not received on previous channel ID.
```

Explanation A cable modem has received an Upstream Channel Change request (UCC-REQ) and has successfully ranged on the new upstream channel, but the CMTS did not receive an upstream channel change response (UCC-RSP) on the old channel.

Recommended Action No action is needed as this situation can occasionally occur in a network when MAC-layer messages are lost. If this problem repeatedly occurs, check the upstream for possible noise and other RF problems.

```
%UBR7100-4-UCC_RSP_RCV_INVALID_CHANNEL_ID
%UBR7200-4-UCC_RSP_RCV_INVALID_CHANNEL_ID
%UBR10000-4-UCC_RSP_RCV_INVALID_CHANNEL_ID: <133>CMTS[DOCSIS]:<67010200> UCC-RSP
received with invalid channel ID.
```

Explanation A cable modem received an Upstream Channel Change request (UCC-REQ) and has sent the required UCC response (UCC-RSP), but the upstream channel the cable modem specified in the UCC-RSP does not match the new channel specified in the original UCC-REQ message.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file.

```
%UBR7100-4-UCC_RSP_RCV_INVALID_CHANNEL_ID_NEW
%UBR7200-4-UCC_RSP_RCV_INVALID_CHANNEL_ID_NEW
%UBR10000-4-UCC_RSP_RCV_INVALID_CHANNEL_ID_NEW: <133>CMTS[DOCSIS]:<67010300>
UCC-RSP received with invalid channel ID on new channel.
```

Explanation A cable modem received an Upstream Channel Change request (UCC-REQ) and has successfully ranged on the new upstream channel, but the CMTS has also received a UCC response (UCC-RSP) message on the new upstream channel that contains a channel ID that does not match the new channel specified in the original UCC-REQ message.

Recommended Action No action is needed if the cable modem was replying to a previous UCC-REQ message. Otherwise, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file.

```
%UBR7100-4-UNABLE_TO_RANGE_CM
%UBR7200-4-UNABLE_TO_RANGE_CM
%UBR10000-4-UNABLE_TO_RANGE_CM: <133>CMTS[DOCSIS]:<82010300> Unable to
Successfully Range CM [dec] Retries Exhausted.
```

Explanation The cable modem could not successfully range on the downstream, despite trying the maximum number of times.

Recommended Action The cable modem will reinitialize its MAC interface and attempt to reregister. If this problem persists, check the cable plant for potential noise or other RF problems. Check the configuration of the cable interface on the CMTS that is servicing this cable modem, to ensure that the interface is enabled and properly configured.

```
%UBR7100-3-UNASSIGNEDSID
%UBR7200-3-UNASSIGNEDSID
%UBR10000-3-UNASSIGNEDSID: CR10K_REQ_API_DHCP_CLEAR: Unassigned sid [dec] for mac
address [enet], sid found [dec]
```

Explanation The main processor requested the specified service from the cable interface line card for a particular MAC address using a SID that the line card has not yet assigned. This problem can occur after a frequency hop or HCCP 1+1 or N+1 (1:n) switchover while the processor and line cards become resynchronized. It can also occur during an IP address spoofing attempt.

Recommended Action Wait for a few minutes until the system stabilizes after the frequency hop or switchover. If the problem persists, or if no frequency hop or switchover has occurred, this could indicate an IP address spoofing attempt.

```
%UBR7100-5-UNAUTHSIDTIMEOUT
%UBR7200-5-UNAUTHSIDTIMEOUT
%UBR10000-5-UNAUTHSIDTIMEOUT: CMTS deleted BPI unauthorized Cable Modem [enet]
```

Explanation An unauthorized cable modem has been deleted to enforce BPI authorization for the specified cable modem. The specified cable modem was not performing BPI negotiation.

Recommended Action Ensure that the DOCSIS configuration file being used by the cable modem has enabled baseline privacy and reboot the cable modem.

```
%UBR7100-4-UNKNOWNSID
%UBR7200-4-UNKNOWNSID
%UBR10000-4-UNKNOWNSID: SID cannot be resolved from the leasequery reply for IP
[IP_address]
```

Explanation The CMTS received an IP packet from a CPE device with an IP address that the CMTS has not seen before, so the CMTS sent a DHCP LEASEQUERY request to the DHCP server to obtain the MAC addresses of the CPE device and its cable modem (chaddr and relay-agent-info fields, respectively). The CM MAC address provided by the DHCP server in its leasequery reply, however, does not match the MAC address of the cable modem that forwarded the packet to the cable interface on the CMTS, indicating a possible spoofing attempt.

Recommended Action Verify that the cable interface has been configured with the **cable source-verify dhcp** and **cable relay-agent-option** commands, and that the DHCP server is preserving the save-relay-agent data. If this is the case, check for a possible IP address spoofing attempt. Release and renew the IP address for the affected DHCP client.

```
%UBR7100-4-UNRECOGNIZED_CONFIGURATION_SETTING
%UBR7200-4-UNRECOGNIZED_CONFIGURATION_SETTING
%UBR10000-4-UNRECOGNIZED_CONFIGURATION_SETTING: <133>CMTS[DOCSIS]:<73000401>
Service unavailable - Unrecognized configuration setting. CM Mac Addr <[enet]>
```

Explanation The CMTS refused to allow the cable modem to register with a confirmation code of reject-unrecognized-configuration-setting(2) because the registration request included an unknown TLV, or a TLV with a value outside of the allowable range.

Recommended Action Verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. In particular, if the cable modem vendor indicates that its cable modems require a special format for their DOCSIS configuration files, verify that the proper tool has been used to create the file. Also, verify that the CMTS is running released software.

```
%UBR7100-5-UNREGSIDTIMEOUT
%UBR7200-5-UNREGSIDTIMEOUT
%UBR10000-5-UNREGSIDTIMEOUT: CMTS deleted unregistered Cable Modem [enet]
```

Explanation The specified cable modem has been marked offline because it has failed to register properly within the DOCSIS-specified timeout period. If the cable modem does not reregister within 24 hours, it will be removed from the cable modem lists on the CMTS.

Recommended Action Check the DOCSIS configuration file being used by the cable modem for errors. This might also be a theft-of-service or address spoofing attack. Other possibilities for seeing this message could be that the cable modem was not able to acquire an IP address through DHCP or failed to download its DOCSIS configuration file, perhaps because the user powered off the cable modem or disconnected it during the registration process.

If this message repeatedly appears for the same cable modem, use the **show cable modem** *mac-address* and **show cable modem** *mac-address* **phy** commands to display the current DOCSIS and PHY layer information for that cable modem. Also use the **debug cable mac-address** *mac-address* **verbose** and **debug cable range** commands to capture debugging output on the cable modem's registration process.

```
%UBR7100-4-UNSPECIFIED_REASON
%UBR7200-4-UNSPECIFIED_REASON
%UBR10000-4-UNSPECIFIED_REASON: <133>CMTS[DOCSIS]:<73020100> REG REQ rejected,
Unspecified Reason. CM Mac Addr <[enet]>
```

Explanation The CMTS rejected the cable modem's registration request (REG-REQ) with a confirmation code of reject-other(1) because of an error that does not match any of the other confirmation codes.

Recommended Action No action is needed. If the problem persists, verify that the cable modem is running DOCSIS 1.1-certified software and is using a valid DOCSIS configuration file. Verify that the CMTS is running released software.

```
%UBR7100-3-UNSUPPORTED_CRYPTO_SUITE
%UBR7200-3-UNSUPPORTED_CRYPTO_SUITE
%UBR10000-3-UNSUPPORTED_CRYPTO_SUITE: <132>CMTS[DOCSIS]:<66030300> Unsupported
Crypto Suite. CM Mac Addr <[enet]>
```

Explanation The specified cable modem has attempted to register using a BPI+ configuration that requires a cryptographic suite that the CMTS does not support, such as 3DES.

Recommended Action Upgrade the software on the CMTS to an image that supports the required cryptographic suite, or modify the cable modem's configuration file so that it registers with a supported configuration.

```
%UBR7100-5-UPDOWN
%UBR7200-5-UPDOWN
%UBR10000-5-UPDOWN: Interface [chars] Port U[dec], changed state to [chars]
```

Explanation The upstream port was brought up or down.

Recommended Action No action is needed.

```
%UBR7100-5-USCONTEND
%UBR7200-5-USCONTEND
%UBR10000-5-USCONTEND: Interface [chars] Port U[dec], continuous frequency hop
ended at [int].[int] MHz
```

Explanation At least one modem came back online, which indicates that the current channel has a sufficient noise ratio and that there is no longer any need to frequency hop to find a better channel.

Recommended Action No action is needed.

```
%UBR7100-5-USCONTHOP
%UBR7200-5-USCONTHOP
%UBR10000-5-USCONTHOP: Interface [chars] Port U[dec], continuous frequency hop
started
```

Explanation All modems have gone offline. This message logs the start of continuous frequency hop, as the cable interface attempts to find a usable channel in the bandwidth spectrum.

Recommended Action No action is needed. If the problem persists, investigate the cable plant for possible RF interference or noise ingress problems.

```
%UBR7100-5-USFREQCHG
%UBR7200-5-USFREQCHG
%UBR10000-5-USFREQCHG: Interface [chars] Port U[dec], changed to Freq [int].[int]
MHz, CW [int].[int] MHz, [chars]
```

Explanation The upstream channel frequency has been changed to the indicated frequency on the indicated upstream port. In Cisco IOS Release 12.2(15)BC2 and later releases, this message also shows the new channel width and modulation scheme (QPSK, 8-QAM, 16-QAM, 32-QAM, 64-QAM).

Recommended Action No action is needed.

```
%UBR7100-5-USIPLINVALID
%UBR7200-5-USIPLINVALID
%UBR10000-5-USIPLINVALID: Interface [chars] Port U[dec], input power level outside
of valid range due to channel width change
```

Explanation Because the channel width has just changed on the indicated upstream, the configured input power level is now outside of the allowable range for the new channel width.

Recommended Action Use the **cable upstream power-level** command to change the power level to match the new channel width size. Use the following table as a guideline.

Channel Width	Minimum (in dB)	Maximum (in dB)
Absolute values for DOCSIS1.1	–16	26
2	–16	14
4	–13	17
8	–10	20
16	–7	23
32	–4	26
64	–1	29

```
%UBR7100-5-USIPLCHG
%UBR7200-5-USIPLCHG
%UBR10000-5-USIPLCHG: Interface [chars] Port U[dec], input power level changed to
[dec] dBmV
```

Explanation The upstream channel input power level has been changed.

Recommended Action No action is needed.

```
%UBR7100-5-USIPLFIX
%UBR7200-5-USIPLFIX
%UBR10000-5-USIPLFIX: Interface [chars] Port U[dec], input power level fixed at
[dec] dBmV
```

Explanation Setting the upstream frequency to a fixed value has caused the upstream input power level to assume a fixed value.

Recommended Action No action is needed.

```
%UBR7100-5-USMODCHANGE_WARN
%UBR7200-5-USMODCHANGE_WARN
%UBR10000-5-USMODCHANGE_WARN: Interface [chars] Port U[dec], new profile [dec] is
[chars] than old profile [dec]
```

Explanation Print warning message about the increase or decrease in through-put

Recommended Action No action is needed.

```
%UBR7100-5-USMODCHANGE
%UBR7200-5-USMODCHANGE
%UBR10000-5-USMODCHANGE: Interface [chars] Port U[dec], dynamic modulation
changed to [chars]
```

Explanation The dynamic modulation feature changed the specified upstream port's configuration from 16-QAM to QPSK or from QPSK to 16-QAM, as indicated.

Recommended Action No action is needed.

```
%UBR7100-5-USMODINVALID
%UBR7200-5-USMODINVALID
%UBR10000-5-USMODINVALID: Interface [chars] U[dec], using default profile [dec]
because modulation profile is undefined on the Protect interface.
```

Explanation This error message occurs when an N+1 switchover occurs, but the Protect interface has not been configured with the same modulation profiles that exist on the Working interface. Because the original modulation profile does not exist on the Protect interface, the CMTS automatically configures the specified upstream with the default modulation profile, so that cable modems can come online.

Recommended Action If the default modulation profile is acceptable for network operations during the switchover period, no action is needed. Otherwise, create the desired modulation profile on the Protect interface using the **cable modulation-profile** command, and assign it to the Protect upstream using the **cable upstream modulation-profile** command.

```
%UBR7100-5-USNOBANDSCONFIGURED
%UBR7200-5-USNOBANDSCONFIGURED
%UBR10000-5-USNOBANDSCONFIGURED: Spectrum Group [dec] doesn't have bands defined
```

Explanation The indicated spectrum group does not have any spectrum bands configured, which means the group cannot be assigned to an upstream.

Recommended Action Configure at least one spectrum band for the group, using the **cable spectrum-group** global configuration command.

```
%UBR7100-5-USNOSPECBANDWIDTH
%UBR7200-5-USNOSPECBANDWIDTH
%UBR10000-5-USNOSPECBANDWIDTH: Spectrum Group [dec] doesn't have bandwidth of at
least [dec] to be assigned to Port U[dec] Interface [chars]
```

Explanation The indicated spectrum group cannot be assigned to the indicated upstream because the group's bandwidth is smaller than the minimum allowable channel width that is configured on the upstream. For example, the spectrum group has a frequency band from 10MHz to 11MHz, but the upstream has a minimum channel width of 1.6 MHz.

Recommended Action Reconfigure the spectrum group so that it has a range of bandwidth that is at least as large as the configured channel width (or reduce the configured channel width).

```
%UBR7100-4-VERSION_MISMATCH
%UBR7200-4-VERSION_MISMATCH
%UBR10000-4-VERSION_MISMATCH: Midplane data version mismatch.
```

Explanation Data stored in the midplane is out of date and requires an update.

Recommended Action Contact your Cisco technical support representative to update your system.

```
%UBR7100-0-VOLTHIGH
%UBR7200-0-VOLTHIGH
%UBR10000-0-VOLTHIGH: [chars] measured at [chars] is too high: shutdown voltage
[chars]
```

Explanation The current voltage exceeds the maximum shutdown voltage.

Recommended Action Determine the cause of the high voltage and correct it. If the problem persists, the power supply will automatically shut down to prevent electrical and mechanical damage.

```
%UBR7100-0-VOLTLOW
%UBR7200-0-VOLTLOW
%UBR10000-0-VOLTLOW: [chars] measured at [chars] is too low: shutdown voltage
[chars]
```

Explanation The current voltage exceeds the minimum shutdown voltage.

Recommended Action Determine the cause of the low voltage and correct it. If the problem persists, the power supply will automatically shut down to prevent electrical damage.

```
%UBR7100-3-WRONG3138CHIP
%UBR7200-3-WRONG3138CHIP
%UBR10000-3-WRONG3138CHIP: BCM3138 current chip [dec], desired chip [dec]
```

Explanation Some cable interface line cards use the Broadcom BCM3138 burst receiver to perform a Fast Fourier Transform (FFT) for digital spectrum analysis, and the card should perform only one FFT operation at a time. This error message indicates that the indicated BCM3138 chip was not idle while another chip was performing an FFT operation, which theoretically should never happen. This is likely a software error, but it could also indicate a hardware fault in rare cases.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%UBR10000-4-SERVICE_FLOW_ZERO_BLAZE_INDEX_ERROR: spa_num: [dec], spa_if_num:
[dec], nb_unique_index: [dec], lc_slot: [dec], lc_subslot: [dec], SFID: [dec],
Blaze index: [dec]
```

Explanation There is an error when allocating blaze index for remote downstream service flow.

Recommended Action Please see "show cable modem" and "show int cx/y/z service-flow" for more details.

```
%UBR7100-3-ZOMBIESID
%UBR7200-3-ZOMBIESID
%UBR10000-3-ZOMBIESID: SID [dec], macaddr [enet], us_channel_id [integer],
rng_list_id [integer], ds_time_stamp [integer], rngpoll_timeout [integer], now
[integer], last_ranging [integer], stn_mtn=[integer], cont_mtn=[integer],
pending=[integer].
```

Explanation A SID was not cleared after a cable modem that had been previously online has gone offline.

Recommended Action Early versions of the Cisco CMTS software would show some cable modems are still online even after they have gone offline or have been moved to another CMTS. This caveat was fixed in Cisco IOS Release 12.1(6)EC and later releases. This error message can still appear occasionally when a cable modem is stuck in the registration process and is continuously in the ranging cycle. If this error message persists, contact TAC and show the engineer the log.

```
%UBR10000-4-TEMPLATE_LKUP_ERROR: CM MAC: [enet] Sid: [dec] Act_Qos: [dec]
```

Explanation Problem while looking up qos template

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter " OUTPUT_INTERPRETER ". Issue the show tech-support command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit " BUG_TOOLKIT ". If you still require assistance, open a case with the Technical Assistance Center via the Internet " TAC_CASE_OPEN ", or contact your Cisco technical support representative and provide the representative with the gathered information.

UBR7200IPC

This section describes error and log messages for Interprocess Communications (IPC) on the Cisco CMTS:

```
%UBR7200IPC-3-CLI_IPC_MALLOC: Memory allocation request failed in [chars]
```

Explanation The system could not allocate memory for distribute CLI operation on the Cisco uBR-MC28U card.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are running released software on the CMTS. 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, especially the number of processes and memory usage. 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.

```
UBR7200IPC-3-DCLI_UNSUPPORTED_CMD: Command not supported on linecard [chars]
```

Explanation The processor sent a cable interface configuration CLI command to the line card, but distributed CLI commands are not supported on this line card.

Recommended Action Verify that you are running released software on the CMTS. 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.

```
%UBR7200IPC-4-MSGVERSION: Incompatible message version with slot [dec]
```

Explanation This message indicates an incompatibility between the message version being sent by the line card and the message version used by the processor card. This type of incompatibility could happen if the processor card and line card are using different versions of the Cisco IOS software, which typically would occur because of an OIR of the main processor card.

Recommended Action Use the **microcode reload** command to reload the microcode on the processor.

```
%UBR7200IPC-1-UNKEVT: Subsystem unknown event:([dec]) in [chars], for interface
[chars]
```

Explanation The processor received an unknown event type.

Recommended Action This could happen if a line card was using newer Cisco IOS software than the processor card. If so, upgrade the router to the latest Cisco IOS software release and reload the router. If this does not correct the problem, 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.

UBRSNMP

This section describes error and log messages for the built-in upconverter that is present on the Cisco uBR7100 series router and on the Cisco uBR-MC5X20S cable interface line card.

```
%UBRSNMP-0-SNMP_SET_IPC: Schooner SNMP SET([dec]/[dec]), [chars] failed
```

Explanation An SNMP SET operation has failed, either because of an Interprocess Communications (IPC) failure, or because the SET of the line card failed.

Recommended Action Verify that you are running released software on the CMTS. Copy the error message exactly as it appears, and 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.

UPCONV

This section describes error and log messages for the built-in upconverter that is present on the Cisco uBR7100 series router and on other cable interface line cards that support internal upconverters (such as the Cisco uBR-MC5X20S and Cisco uBRMC28U cable interface line cards).

```
%UPCONV-3-ALARM: interface [chars] upconverter alarm [chars]
```

Explanation The upconverter for the indicated downstream has reported the indicated 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.

```
%UPCONV-3-BAD: interface [chars] Cannot initialize upconverter
```

Explanation The indicated interface was not able to initialize its integrated upconverter.

Recommended Action This could indicate either a software failure, or a hardware failure on the interface. Verify that you are running released software on the CMTS. If so, 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.

```
%UPCONV-5-DSFREQ: interface [chars] Downstream frequency set to [dec].[dec] Mhz
```

Explanation The RF downstream frequency for the indicated interface and its integrated upconverter has been changed using the **cable downstream frequency** command.

Recommended Action No action is needed.

```
%UPCONV-5-DSPOWER: interface [chars] Downstream RF power set to [dec].[dec] dBmv
```

Explanation The RF downstream power output for the indicated interface and its integrated upconverter has been changed using the **cable downstream rf-power** command.

Recommended Action No action is needed.

```
%UPCONV-5-DSPOWER_RANGE: Warning: Unsupported upconverter output power on
interface [chars]. Supported range is between 50 and 61dBmV.
```

Explanation The upstream RF output power is outside the acceptable level. User input accepts a wider power range from 45 to 63 dBmV, but the useful output range is from 50 to 61 dBmV. Everything is functioning.

Recommended Action No action is required.

`%UPCONV-3-I2CERROR: Upconverter I2C error. Reg 0x[integer], [chars]`

Explanation The cable interface line card has reported that an error occurred while it was communicating with the upconverter. The following errors are possible:

- Ack failed—The cable interface got a reply from the upconverter but the upconverter indicated that it was stopped. This could indicate a hardware failure, or that the upconverter is in an unknown or unexpected state.
- NO OK—The cable interface timed out while waiting for the upconverter to respond. This probably indicates a hardware failure.
- Read failed—The cable interface could not successfully read the upconverter's status register. This could indicate a hardware failure, or that the upconverter is in a hung or frozen state.

Recommended Action Reset the upconverter using the **no cable downstream rf-shutdown** and **cable downstream rf-shutdown** commands. If that does not help, reset the cable interface using the **shutdown** and **no shutdown** commands. If this is a separate cable interface line card in the Cisco uBR7246VXR or Cisco uBR10012 router, try removing and reinserting the card. If these do not correct the problem, verify that you are running released software on the CMTS. If so, 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.

`%UPCONV-5-NOUPCONV:` interface [chars] does not have integrated upconverter

Explanation A command to configure an integrated upconverter was given on an interface that does not have an integrated upconverter. Currently, the only cable interfaces that have an integrated upconverter are the Cisco uBR7100 series router, Cisco uBR-MC28U cable interface line card, and Cisco uBR-MC5X20S cable interface line card.

Recommended Action No action is needed.

`%UPCONV-5-UPDOWN: interface [chars] upconverter output changed to [chars]`

Explanation The upconverter status for the indicated interface has been changed using the **cable downstream rf-shutdown** command.

Recommended Action No action is needed.

Cisco uBR10012 Router Error Messages

This section lists the system error messages that are unique to the Cisco uBR10012 router. The messages are organized according to their FACILITY value, which indicates the subsystem on the Cisco uBR10012 router that is generating the message:

Tip Within each section, the messages are listed alphabetically, according to their MNEMONIC value.

BARIUM

This section describes error messages about the Barium hardware, which is the ASIC on the line cards that provides a high-speed interface to the backplane on the Cisco uBR10012 router, moving data between the backplane and packet memory.

```
%BARIUM-3-ERRINTR: Barium error interrupt detected intr_status=0x[hex].
```

Explanation The Cisco IOS software detected an error in the Barium ASIC or driver software.

Recommended Action Reset the line card with the **hw-module reset** command. If the problem continues, reset the card using the **cable power off** and **cable power on** commands. If the problem persists, verify that you are using released software on the Cisco CMTS. If so, 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.

`%BARIUM-3-NOTBARIUM: Slot [dec] device ID seen as [hex], expected [hex]`

Explanation The Cisco IOS software could not recognize the Barium ASIC on the specified card. This could indicate a transient software error, that the card has been incorrectly programmed at the factory, or a hardware failure on the card.

Recommended Action Remove and reinsert the card. If that does not resolve the problem, reset the line card with the **hw-module reset** command. If the problem continues, reset the card using the **cable power off** and **cable power on** commands. If the problem persists, power down the system, remove and reinsert the card, and then reboot. If the problem continues, replace the card.

`%BARIUM-3-OWNERR: [chars] packet buffer, Buffer ownership error, pak=0x[hex].`

Explanation The Cisco IOS software detected an error in the ownership descriptor in the specified packet that was processed by the Barium ASIC. This typically indicates either a transient software error or a hardware problem.

Recommended Action Reset the line card with the **hw-module reset** command. If the problem continues, reset the card using the **cable power off** and **cable power on** commands. If the problem persists, remove and reinsert the card. If that does not resolve the problem, replace the card.

`%BARIUM-3-TOOBIG: BARIUM<[chars]> packet buffer size=0x[hex].`

Explanation The Cisco IOS software detected an oversized packet in one of the packets being processed by the Barium ASIC.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, 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.

C10KCHKPT

This section describes system error messages that are related to the Checkpoint Facility (CF) subsystem, which manages the passing of messages from the Active to Standby interfaces, and which also handles sequencing and throttling, as needed during redundancy operations.

`%C10KCHKPT-3-ADD_CLIENT: [chars]: chkpt_add_client error, client_id [dec] rc [dec]`

Explanation The checkpoint client registration failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KCHKPT-3-GET_BUFFER: [chars]: chkpt_get_buffer error, rc [dec]`

Explanation The checkpoint buffer allocation failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KCHKPT-3-GET_DATA_PTR: [chars]: chkpt_get_data_ptr error, ([chars])`

Explanation The checkpoint data pointer failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KCHKPT-3-SEND_MSG_BLOCKED: [chars]: chkpt_send_msg_blocked error, rc [dec]`

Explanation The checkpoint “send blocked” message failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KCHKPT-3-SEND_MSG_NONBLOCKED: [chars]: chkpt_send_msg_nonblocked error, rc [dec]`

Explanation The checkpoint “send non-blocked” message failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KCHKPT-3-STATUS_CALLBACK: [chars]: chkpt status callback received unexpected status code [dec]`

Explanation The checkpoint status callback received unexpected code.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

C10KGE

This section describes Gigabit Ethernet subsystem messsages.

`%C10KGE-6-STATESYNC: Redundancy state synchronization failure slot [dec]/[dec] -([chars])`

Explanation A failure occurred while trying to synchronize GE redundancy state information.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

C10KJACKET

This section describes system messages pertaining to the session initiation protocol (SIP) jacket card.

`%C10KJACKET-6-BAYINIT: Bay [dec] failed to initialize for jacket in slot [dec]`

Explanation The SPA Bay data structures failed during initialization or activation.

Explanation occurred while trying to synchronize GE redundancy state information.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KJACKET-6-BAYMISMATCH: Bay number in message ([dec]) received ([chars]) greater than max number [dec]`

Explanation The bay number in the message received exceeded the maximum number of bays.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KJACKET-4-IPCFAIL: [chars], [chars] command failure in ([chars])`

Explanation A command message sent to the line card failed.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KJACKET-4-MSGVERSION: Incompatible message version with slot [dec]`

Explanation The message version being sent by the line card is incompatible with the message version used by the RP.

Recommended Action A microcode reload will solve the problem.

`%C10KJACKET-1-PARSEINITFAIL: Parser initialization failed in [chars]`

Explanation The Cisco uBR10012 jacket card hardware initialization failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KJACKET-6-SLOTMISMATCH: Slot number in message ([dec]) received ([chars])`

Explanation The slot number in the message received did not match the plug-in slot number.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KJACKET-6-UNKNOWN: Unknown message ([dec]) received ([chars]) on slot [dec]`

Explanation An unknown message was received from the line card.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%C10KJACKET-6-UNKNOWNREG: Unknown register type ([dec]) received ([chars]) on slot [dec]`

Explanation An unknown register type was received from the line card.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

CLCAPPLICATION

This section describes system messages related to applications like DOCSIS that run on the cable linecards.

```
%CLCAPPLICATION-6-INCONSISTENTGATEDB: Gate entry, bin [dec], off [dec], is in use
by [dec]. It will be replaced by [dec].
```

Explanation This message appears when the PacketCable gate database on a cable interface line card and the gate database on the processor card are not the same. This indicates that the cable interface line card did not properly clean up its database, which in current Cisco IOS releases usually occurs after an N+1 HCCP switchover. After the switchover, the line card begins reusing these gates for new calls, displaying this message for each gate that was in effect at the time of the switchover.

Recommended Action This message is expected after an N+1 HCCP switchover, during which existing PacketCable voice calls could be terminated. New PacketCable calls, however, can be made without problem. If this message appears without a switchover occurring, copy the error messages that appear, and use the **show packetcable gate summary** and the **show tech-support** commands to collect information about the problem. 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.

CLCPLATFORM

This section describes system messages related to the cable linecard platform software.

```
%CLCPLATFORM-3-ERRRPLCCFGSYNC: HCCP [dec] [dec] [chars] rp-lc configure sync
error: [chars].
```

Explanation There is a problem synchronizing the HCCP RP and line card configuration Synch.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

```
%CLCPLATFORM-3-UNKNOWPLAT: Unknown Platform ID, [dec].
```

Explanation The Cisco uBR10012 router does not recognize the line card that is in the specified slot.

Recommended Action Verify that you are using released software on the Cisco uBR10012 router that supports this particular line card. If so, reset the line card with the **hw-module reset** command, or using the **cable power off** and **cable power on** commands. If the problem persists, copy the error message exactly as it appears, and use the **show tech-support** command to collect information about

the problem. 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.

CR10KLCCOREDUMP, UBRLCDUMP

This section describes error messages generated by the subsystem that manages core dumps for line cards in the Cisco uBR10012 router. These messages can appear with either the facility of CR10KLCCOREDUMP or UBRLCDUMP.

```
%CR10KLCCOREDUMP-3-BADCLOSE: Can't close slave core socket for slot [dec]/[dec]
%UBRLCCOREDUMP-3-BADCLOSE: Can't close slave core socket for slot [dec]/[dec]
```

Explanation The system just finished dumping a core file from a line card. It tried to close this file on the remote system and failed.

Recommended Action Debug the card's network connections and examine user privileges.

```
%CR10KLCCOREDUMP-3-BADOPEN: Can't open slave core socket for slot [dec]/[dec]
%UBRLCCOREDUMP-3-BADOPEN: Can't open slave core socket for slot [dec]/[dec]
```

Explanation The system wants to dump a core file to a remote system, but it is unable to open the remote file.

Recommended Action Check to make sure the remote system is accessible and the protocol is set up correctly.

```
%UBRLCDUMP-3-BADSLOTNUMBER: Refusing dump because card slot number is out of
bounds for card [dec]/[dec].
```

Explanation The PRE processor has refused this coredump because the slot number of the requested card is out of bounds.

Recommended Action Enable IPC debug messages and check for malformed packets.

```
%CR10KLCCOREDUMP-3-BADWRITE: Can't write [chars] to slave core socket for slot
[dec]/[dec]
%UBRLCCOREDUMP-3-BADWRITE: Can't write [chars] to slave core socket for slot
[dec]/[dec]
```

Explanation The system is trying to write a core dump file to a remote system. The file was opened, but an error occurred during a write to the file.

Recommended Action Verify that disk space is available on the remote server. Use the **ping** command to verify that the PRE module has network connectivity to the remote server.

```
%UBRLCDUMP-3-CRASHINFO_DUMP: System Crashed, Trying to send Crashinfo first to
remote server....
```

Explanation The system crashed because of an exception error, but a crashinfo file is being generated before the system restarts.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%CR10KLCCOREDUMP-2-EOM: Cannot allocation memory for [chars]
%UBRLCCOREDUMP-2-EOM: Cannot allocation memory for [chars]
```

Explanation The system cannot allocate memory for the core dump subsystem.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Add more memory to the PRE module.

```
%UBRLCDUMP-3-FAILEDMEMALLOC: Unable to allocate memory to read crashinfo from
flash.
```

Explanation The system failed to open the most recent crashinfo file in Flash memory because it could not allocate sufficient memory for the file's buffers.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%CR10KLCCOREDUMP-3-ILLMSG: Coredump message received from slot [dec]/[dec] (not
in dump state)
%UBRLCCOREDUMP-3-ILLMSG: Coredump message received from slot [dec]/[dec] (not in
dump state)
```

Explanation A core dump message arrived at the PRE module from a line card that is not in a coredump state and therefore should not be dumping core.

Recommended Action Gather information about the state of line cards and file a bug.

```
%CR10KLCCOREDUMP-3-ILLNVGEN: Illegal call to cr10k_rp_lc_cfg_coredump_nvgen
%UBRLCCOREDUMP-3-ILLNVGEN: Illegal call to cr10k_rp_lc_cfg_coredump_nvgen
```

Explanation The NVGEN routine was called, but nvgen was not set.

Recommended Action Gather information about the processes running on this platform and the traceback and file a bug.

```
%CR10KLCCOREDUMP-3-ILLTD: Testdump only valid on line cards (not allowed on PREs)
%UBRLCCOREDUMP-3-ILLTD: Testdump only valid on line cards (not allowed on PREs)
```

Explanation You cannot run a line card coredump test on a PRE module.

Recommended Action Do not use these commands on the PRE module, but only on line cards.

```
%CR10KLCCOREDUMP-6-LERP: Cannot configure linecard exceptions for [chars] PRE
%UBRLCCOREDUMP-6-LERP: Cannot configure linecard exceptions for [chars] PRE
```

Explanation The **exception** linecard commands can only be used to configure exceptions on a line card, not on a PRE module.

Recommended Action Use the **exception** command without specifying a linecard to configure core dumps for the PRE module.

```
%CR10KLCCOREDUMP-3-NOMSG: No message on queue
%UBRLCCOREDUMP-3-NOMSG: No message on queue
```

Explanation A core dump message from a line card that should not be dumping core arrived at the PRE module.

Recommended Action Gather information about the state of line cards and file a bug.

```
%CR10KLCCOREDUMP-3-NOPROC: Unable to create data/handling process
%UBRLCCOREDUMP-3-NOPROC: Unable to create data/handling process
```

Explanation The system wants to write a core dump file to a remote system but it is unable to start a process to dump the file.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Gather information about the number of processes running and amount of memory in the system and file a bug.

```
%CR10KLCCOREDUMP-3-NOPROC: Unable to create core dump process
%UBRLCDUMP-3-NOPROC: Unable to create core dump process
```

Explanation The system tried to write a core dump file to a remote system but it could not start a process to dump the file.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Gather information about the number of processes running and amount of memory in the system and file a bug.

```
%CR10KLCCOREDUMP-3-NOQUEUE: Cannot create queue to receive dump packets for slot
[dec]/[dec]
%UBRLCCOREDUMP-3-NOQUEUE: Cannot create queue to receive dump packets for slot
[dec]/[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 Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Add memory.

```
%UBRLCDUMP-3-OPENFLASHFILE: Unable to open flash crashinfo file on bootflash to
READ: [chars]
```

Explanation The system failed to open the most recent crashinfo file in Flash memory.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%UBRLCDUMP-3-READFLASHFILE: Unable to read flash crashinfo file.
```

Explanation The system failed to read the most recent crashinfo file in Flash memory.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%UBRLCDUMP-3-REFUSAL: Refusing core dump for card [dec]/[dec].
```

Explanation The PRE processor card has refused this dump for the particular card because the **exception-slave** command was not configured for this card. This message could also be displayed if the TFTP server refused the file transfer because of insufficient file access rights.

Recommended Action Check that the proper **exception-slave** command has been given on the PRE processor. Verify that the destination directory and file on the TFTP server are configured with read-write access rights.

```
%UBRLCDUMP-3-SIZEFLASHFILE: Unable to get size of flash crashinfo file.
```

Explanation The system was unable to obtain the size of the most recent crashinfo file in Flash memory.

Recommended Action Verify that you are using released software on the Cisco CMTS. If so, 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.

```
%CR10KLCCOREDUMP-4-TIMEOUT: [chars] (major [dec], minor [dec])
%UBRLCCOREDUMP-4-TIMEOUT: [chars] (major [dec], minor [dec])
```

Explanation The system is trying to write a core dump file, but the PRE module timed out waiting for data from the line card.

Recommended Action Gather information about the line card and file a bug.

```
%UBRLCDUMP-3-TOOLONGFILENAME: Filename for coredump file is too long for slot
[dec]/[dec].
```

Explanation The filename given in the **exception-slave** command is too long for the core dump file.

Recommended Action Use the **exception-slave** command to specify a new coredump filename that has a maximum filename length, including path, to 32 characters or less.

IPRT

This section describes system messages related to IP Routing.

```
%IPRT-3-BADRFREG: Unable to register IP Routing as a client of RF.
```

Explanation This is a severe IP Routing NSF error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require

assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

LCINFO

The following are line card crash information subsystem error messages that have been added for the Cisco uBR10012 router. Other LCINFO error messages are documented in the main *Cisco IOS System Error Messages* documentation set.

`%LCINFO-3-NOLCHANGPROC: Failed creating line card hang cure process`

Explanation The system could not create a hang cure process for checking prolonged down states on the line card, which should not occur during normal operations. This failure should occur only during initialization, and if it occurs during other times, it is probably due to a software defect or hardware failure.

Recommended Action Reboot the system. If the condition continues on subsequent reloads of the system, verify that you are running released software on the Cisco uBR10012 router. If this does not resolve the problem, upgrade the router to the latest Cisco IOS Release 12.2 BC release. If the problem persists, 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.

`%LCINFO-4-LCHUNG: Slot [ [dec]/[dec] ] down on last [dec] checks. HW RESET # [dec]`

Explanation The PRE module generates this error message when it detects that a line card has been hung and unresponsive for more than 150 seconds, and has therefore issued a hardware reset for that slot. This can occur when the line card becomes hung in a Cisco IOS operation and is not able to recover, or when the ROMMON gets stuck during the TFTP bootload.

Recommended Action This will occur if you remove all working TCC+ cards from the Cisco uBR10012 chassis—you must have at least one working TCC+ card in the system for the cable interface line cards to function correctly. If the router does have at least one working TCC+ card, verify that the line card is fully inserted into the card slot, and if necessary, remove and reinsert the line card. If the problem seems related to access lists, verify that you are running Cisco IOS Release 12.2(8)BC2 or later released software on the router. If the problem persists, check the memory on the line card for possible failure or error, and replace the memory as necessary. If the problem continues, replace the line card, and report this problem with as much information as possible about the line card.

NETWORK_RP_API

This section describes messages related to the network redundancy feature API.

```
%NETWORK_RP_API-6-IDB_TRANSITIONS_PENDING: Switchover terminated with [dec]
transitions pending after there was no transition activity for [dec] seconds
```

Explanation The system terminated the switchover IDB transitioning phase with a number of IDB transitions still pending, because no switchover related IDB transitions were logged during the specified time interval. Some connected routes may experience a temporary loss of traffic.

Recommended Action No action is required.

RED

This section describes system messages related to redundancy.

```
%RED-3-CHKPTADDCLIENT: Check Point Client [dec] Add  Failed - [dec]
```

Explanation The check point message client failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

```
%RED-3-CHKPTALLOC: Check Point Message Allocation Failed - [dec]
```

Explanation The check point buffer allocation failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

```
%RED-3-CHKPTGETDATAPTR: Check Point Get Data Pointer Failed
```

Explanation The check point message had an internal error with the data pointer.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-CHKPTINVALIDDATA: Check Point Client has invalid data`

Explanation The check point message had invalid data.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-CHKPTMSGCOPY: Check Point Message Copy Failed`

Explanation The check point message copy had an internal error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-CHKPTMSGSIZE: Check Point Message Size is Zero!`

Explanation The check point message size is zero.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-CHKPTRIMRCSACTIVE: Check Point RIM RCS ACTIVE Failed`

Explanation The check point process had an RIM RCS active error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-CHKPTSENDFAIL: Check Point Message Send - Unsuccessful delivery`

Explanation The check point message send was unsuccessful.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-CHKPTSENDMSG: Check Point Message Send  Failed - [dec]`

Explanation The check point message send failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-DATADECODE: Decode Data Descriptor for data type Failed`

Explanation The Decode Data descriptor failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-3-DATAENCODE: Encode Data Descriptor for data type  [chars] Failed`

Explanation The Encode Data Descriptor failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED-5-REDCHANGE: EHSA Register changed Prev - [hex]h, Current - [hex]h`

Explanation The Peer RP was changed through the EHSA Register.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED_MODE-3-NO_DEREGISTER: Could not deregister plugin for redundancy mode [chars]`

Explanation At system initialization, the plug-in that describes the capabilities of this redundancy mode could not be deregistered with the redundancy mode client.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%RED_MODE-4-NO_MODE_IN_CLI: Redundancy mode not defined in configuration. Please add to configuration`

Explanation The redundancy mode was not defined at the top of the configuration. Therefore, the system boot will take longer. The system reads through the configuration to attempt to find the redundancy mode, after which it will determine that the default redundancy mode should be used.

Recommended Action Explicitly write the configuration to NVRAM, so the redundancy mode is discovered at an early stage.

`%RED_MODE-3-NO_REGISTER: Could not register plugin for redundancy mode [chars]`

Explanation At system initialization, the plug-in that describes the capabilities of this redundancy mode could not be registered with the redundancy mode client. This redundancy mode may not be available as an option from the parser.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

REQGRP

This section describes the error messages generated by the Request Interprocess Communication subsystem that is running on the line cards.

`%REQGRP-3-DSPTCHQ: [chars]`

Explanation The initialization of the dispatch IPC queue failed.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. If this does not resolve the problem, 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.

`%REQGRP-6-NBLKEVT_Q_FULL: Nonblocking IPC event queue full ([dec] events)`

Explanation The Non-blocking IPC event queue filled up and was flushed to avoid buffer starvation.

Recommended Action No action is needed.

`%REQGRP-3-NBLKQ: [chars]`

Explanation Nonblocking IPC queue initialization failure.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. If possible, upgrade to the latest Cisco IOS Release 12.2 BC release. If this does not resolve the problem, 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.

`%REQGRP-3-NORESP: No response generated for IPC request [dec] (slot [dec]/[dec]): [chars]`

Explanation The handler for an IPC Request did not respond to the sender.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. If possible, upgrade to the latest Cisco IOS Release 12.2 BC release. If this does not resolve the problem, 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.

```
%REQGRP-3-REQOP: IPC request/response [dec] (slot [dec]/[dec]): [chars]
```

Explanation Operational errors occurred on the line card while processing an IPC Request. This can occur because the line card is generating a large volume of interprocess communications (IPC) traffic with the PRE module, resulting in IPC request or response messages being dropped. This can also occur occasionally when a cable interface line card is initializing.

Recommended Action Examine the traffic on the line card to determine if a cable modem or other device is generating an excessive volume of traffic, or if a large number of errors are occurring on the cable interface. Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card and reset the indicated line card. If possible, upgrade to the latest Cisco IOS Release 12.2 BC release. If this does not resolve the problem, 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.

```
%REQGRP-3-SYSCALL: System call for command [dec] (slot[dec]/[dec]) : [chars]
(Cause: [chars])
```

Explanation The indicated IPC kernel system call error occurred with the indicated line card. This can occasionally occur when a line card is initializing or reloading, and generates a large volume of IPC traffic within a short time period.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router, and reload the processor card. If possible, upgrade to Cisco IOS Release 12.2(8)BC1 or the latest Cisco IOS 12.2 BC release. If this does not resolve the problem, 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.

```
%REQGRP-6-UNKLCREQ: Received unknown IPC request from ([dec])
```

Explanation An unknown line card request was received.This typically occurs only during power-on or system initialization when one or more line cards have not been fully initialized at the time when the PRE module communicates with them.

Recommended Action No action is needed.

```
%REQGRP-6-UNKVER: Received IPC with unsupported version, ([dec])
```

Explanation The version of a request is newer than supported.

Recommended Action No action is needed. If the problem persists, upgrade the Cisco IOS software release on the PRE modules, and reboot the router, so that the PRE modules and line cards are running the same release of Cisco IOS software.

SPAWBCMTS

These section describes system messages pertaining to the Wideband SPA.

`%SPAWBCMTS-3-HWINITFAILED: Error while initializing wideband group interface [chars]`

Explanation There was a wideband group interface initialization error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%SPAWBCMTS-3-INVALIDDATA: Invalid information [chars] received by wideband software routine`

Explanation The wideband SPA software module was passed invalid information.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%SPAWBCMTS-4-SFP_LINK_LOST: [chars], port [dec] link changed state to down`

Explanation The link status is down on SPA SFP

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%SPAWBCMTS-4-SFP_LINK_OK: [chars], port [dec] link changed state to up`

Explanation Link status is up on the SPA Small Form Factor Pluggable (SFP) interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require

assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%SPAWBCMTS-4-SFP_MISSING: [chars], [chars] SFP missing from port [dec]`

Explanation The SFP is missing from the SPA.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%SPAWBCMTS-4-SFP_OK: [chars], [chars] SFP inserted in port [dec]`

Explanation The SFP inserted into the SPA.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%SPAWBCMTS-3-SPAHANDLERFAIL: The SPA was unable to process/handle the received data`

Explanation The wideband SPA was unable to process or handle the received data.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

UBR10K

The messages in this section are generated by systems that are running on the main processor in the Cisco uBR10012 router.

```
%UBR10K-3-CFRNOINDEX: Classifier control block index allocation failure
```

Explanation The processor card has run out of PXF resources to set up new packet classifier states. This typically would happen only on a very overloaded system.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Increase memory on the processor card. If that is not possible or does not help, reduce the number of cable modems using this router. Also verify that you are running Cisco IOS Release 12.2(11)BC2 or a later Cisco IOS 12.2 BC software release.

```
%UBR10K-3-CFRNOMACRWIP: Invalid IP address mapping for of CPE [enet] belonging to
CM [enet]
```

Explanation An inconsistency occurred between the processor's PXF FIB and CPE databases, preventing the CPE device from being set up for the correct packet classification state. This error could occur on occasion if the cable modem or CPE device was reset with the **clear cable modem reset** or **clear cable host** command, respectively.

Recommended Action Have the customer reboot the CPE device, or have it release and renew its IP address. If this occurs with one particular cable modem, check the DOCSIS configuration file being downloaded to the cable modem for any errors. If the problem persists, or if this problem occurs on a cable interface using bundles, upgrade to Cisco IOS Release 12.2(11)BC2 or a later release. Also gather information about the cable modem and notify TAC about this problem.

```
%UBR10K-0-CLI_CMD: CMTS([dec]/[dec]), [chars] failed
```

Explanation This message most likely indicates a software failure.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. 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.

```
%UBR10K-0-CLI_CONFIG: CMTS([dec]/[dec]/[dec]), schrp_cli_cmd failed in [chars]
```

Explanation This message most likely indicates a software failure. If it is occurring on all line cards, with the line cards going up and down, it could indicate a possible hardware failure in the TCC+ card.

Recommended Action If the error message occurs with all line cards, verify that you have a working TCC+ card in the system. If necessary, replace at least one TCC+ card with a known working card. Verify that you are running released software on the Cisco uBR10012 router. 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.

`%UBR10K-2-CLI_UNSUPPORTED_CMD: cable modem <ipaddr/macaddr> cmd not supported in Schooner`

Explanation The Cisco uBR10012 router does not support the **cable device access-group**, **cable host access-group**, and **cable modem access-group** commands. The other forms of these commands are supported only in Cisco IOS Release 12.2(4)BC1 or later software releases.

Recommended Action No action is needed.

`%UBR10K-3-FPSUBINIT: Unable to create subinterface [chars] for hw interface [chars] in the fast path`

Explanation The system was unable to create the cable subinterface data structures in the fast path on the processor.

Recommended Action Verify that you are running the latest version of released Cisco IOS software, and upgrade to the latest Cisco IOS 12.2 BC release, as necessary. If the problem persists, 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, especially the running configuration and amount of memory. 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.

`%UBR10K-1-INITFAIL: Schooner subsystem init fails:([chars])`

Explanation The Cisco uBR10012 subsystem could not initialize. This message most likely indicates a software error.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. Otherwise, upgrade to the latest Cisco IOS Release 12.2 BC software release. If this does not resolve the problem, 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.

`%UBR10K-1-INVALID_DIVHDR: Invalid diversion hdr on pkt: cause [dec], channel 0x[hex], length [dec]`

Explanation The processor received a corrupt diverted packet from the cable interface line card.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. Otherwise, upgrade to the latest Cisco IOS Release 12.2 BC software release. If this does not resolve the problem, 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.

`%UBR10K-1-INVALIDPRIMSID: Dropping punted pkt from sid [dec] prim sid [dec] src [enet] hw [chars]`

Explanation The processor received a corrupt packet from the indicated source address and cable interface line card. This packet was dropped because it referenced an invalid primary service ID (SID).

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. Otherwise, upgrade to the latest Cisco IOS Release 12.2 BC software release. If this does not resolve the problem, 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.

`%UBR10K-1-INVALIDSID: Dropping punted pkt from sid [dec] src [enet] hw [chars]`

Explanation The processor received a corrupt packet from the indicated source address and cable interface line card. This packet was dropped because it referenced an invalid service ID (SID).

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. Otherwise, upgrade to the latest Cisco IOS Release 12.2 BC software release. If this does not resolve the problem, 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.

`%UBR10K-1-IPCFAIL: Schooner subsystem IPC init fails for interface [chars] on [chars]: in [chars]`

Explanation The Cisco uBR10012 interprocess communications (IPC) subsystem could not initialize. This message most likely indicates a software error.

Recommended Action Verify that you are running released software on the Cisco uBR10012 router. If so, reload the processor card. Otherwise, upgrade to the latest Cisco IOS Release 12.2 BC software release. If this does not resolve the problem, 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.

`%UBR10K-4-MSGVERSION: Incompatible message version with slot [dec]`

Explanation This message indicates an incompatibility between the message version being sent by the line card and the message version used by the processor card. This type of incompatibility could happen if the processor card and line card are using different versions of the Cisco IOS software, which typically would occur because of an OIR of the main processor card.

Recommended Action Use the **microcode reload** command to reload the microcode on the processor.

`%UBR10K-3-QALLOCFAIL: Failure to allocate QoS queue for service flow [dec], CM [enet]`

Explanation The system has run out of PXF queues for processing service flows.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. Increase memory on the processor card. If that is not possible or does not help, reduce the number of cable modems using this router.

`%UBR10K-3-QUEUEFULL: EnQ Fail: Int:[chars] MAC:[enet] SID:[int] Type:[int]; Queue Head MAC:[enet]`

Explanation The processor was unable to enqueue a message because the message queue is already full. This could happen because of insufficient resources, or because the system is unusually heavily loaded (for example, as could happen if you used the clear cable modem all reset command to reset all cable modems for the router). This error message could also be accompanied by other messages such as %UBR10000-3-CM_INCONST, indicating that the CMTS has missed some messages indicating that one or more CMs have changed state or gone offline.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%UBR10K-1-POWCYCLE: Power cycle slot [dec]/[dec]`

Explanation The system put the indicated Cisco uBR-MC16S cable interface line card through a power cycle so that it could recover from a hardware initialization failure. This could happen during an HCCP N+1 (1:n) switchover, for example.

Recommended Action If this persists with a Cisco uBR-MC16S card, replace the card. If this happens to another type of line card, 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.

`%UBR10K-1-SNMP_GETINDEX_FAIL: Cannot get SNMP physical Index for [chars]`

Explanation The processor on the Cisco uBR10012 router could not complete an SNMP get request for the specific line card, indicating an initialization failure.

Recommended Action Verify that you are running the latest version of released Cisco IOS software, and upgrade to the latest Cisco IOS 12.2 BC release, as necessary. If the problem persists, 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.

`%UBR10K-1-SNMP_SENDCMD_FAIL: Error sending command type [dec], which [dec]`

Explanation The processor on the Cisco uBR10012 router could not send the indicated internal command to the specific line card, indicating an initialization failure.

Recommended Action Verify that you are running the latest version of released Cisco IOS software, and upgrade to the latest Cisco IOS 12.2 BC release, as necessary. If the problem persists, 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.

`%UBR10K-1-SNMP_SENDINFO_FAIL: Error sending SNMP info to [chars]`

Explanation The processor on the Cisco uBR10012 router could not complete an SNMP set request for the specific line card, indicating an initialization failure.

Recommended Action Verify that you are running the latest version of released Cisco IOS software, and upgrade to the latest Cisco IOS 12.2 BC release, as necessary. If the problem persists, 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.

`%UBR10K-0-SNMP_SET_IPC: Schooner SNMP SET([dec]/[dec]), [chars] failed`

Explanation An SNMP SET operation failed, either because of an interprocess communications (IPC) failure or because of a line card failure.

Recommended Action Remove and reinsert the indicated line card. If this does not correct the problem, 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.

`%UBR10K-1-UNKEVT: Schooner subsystem unknown event:([dec]) in [chars], for interface [chars]`

Explanation The processor on the Cisco uBR10012 router received an unknown event type.

Recommended Action This could happen if a line card was using newer Cisco IOS software than the processor card. If so, upgrade the router to the latest Cisco IOS software release and reload the router. If this does not correct the problem, 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.

`%UBR10K-1-UNKREQ: Schooner subsystem unknown request:([dec])`

Explanation The processor on the Cisco uBR10012 router received an unknown request type.

Recommended Action This could happen if a line card was using newer Cisco IOS software than the processor card. If so, upgrade the router to the latest Cisco IOS software release and reload the router. If this does not correct the problem, 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.

`%UBR10K-1-UNKVECT: Schooner subsystem unknown vector:([dec])`

Explanation The processor on the Cisco uBR10012 router received an unknown vector type.

Recommended Action This could happen if a line card was using newer Cisco IOS software than the processor card. If so, upgrade the router to the latest Cisco IOS software release and reload the router. If this does not correct the problem, 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.

`%UBR10K-3-VOLTABNORMAL: The PEM [dec] voltage value [dec] is abnormal`

Explanation The Cisco uBR10012 router is measuring abnormal voltage coming into the chassis from the Power Entry module (PEM).

Recommended Action Check the power source that is providing power to the PEMs to ensure the source is providing the correct voltage. If the power source is providing the proper voltage, replace the indicated PEM. If this does not correct the problem, 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.

`%UBR10K-6-HCCP_CM_INCONSISTENCY: CM sync received [enet](msgp [enet]), sid [dec] ([dec]), mac state [dec], hwidb [chars]`

Explanation A synchronization message on the secondary PRE was received for a mismatched entry.

Recommended Action This problem should resolve by itself. If it persists, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl).

Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

```
%UBR10K-4-INVALID_PKT_FILTER_GROUP: Invalid [chars]_filter_group [int], IP_addr =
[IP_address]
```

Explanation The CM-config-file specifies a filter-group greater than the platform maximum.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

```
%UBR10K-6-STATESYNC: Redundancy state synchronization failure slot [dec]/[dec] -
([chars])
```

Explanation A failure occurred while trying to synchronize GE state information.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

```
%UBR10K-6-STDBY_CM_INCONSISTENCY: CM sync received [enet](msgp [enet]), sid [dec]
([dec]), mac state [dec], hwidb [chars]
```

Explanation A synchronization message was received for a mismatched entry in its cable modem database.

Recommended Action This problem should resolve by itself. This can be verified by examining the output of **show interface cable**<**x**/**y**/z> **modem 0 rp** | **include** *mac-address* on the secondary PRE console and comparing its output with that of **show interface cable**<x/**y**/**z**> **modem 0 rp** | **include** <*mac-address*> on the primary PRE console. If a mismatch is found between the two outputs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

UBR10K_REDUNDANCY

The messages in this section describe errors that occur during the operation of Route Processor Redundancy Plus (RPR+) redundancy on the Cisco uBR10012 universal broadband router.

`%UBR10K_REDUNDANCY-3-CHKPT_INTERNAL: Internal PRE checkpointing error [chars]`

Explanation An internal software error occurred within the PRE module's Checkpoint Facility (CF) code, which handles the messaging between the PRE module and the line cards.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show cable clock** and **show tech-support** 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 tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

`%UBR10K_REDUNDANCY-4-MSGVERSION: Incompatible message version with slot [dec]`

Explanation This message indicates an incompatibility between the message version being sent by the line card and the message version used by the PRE module processor card. This type of incompatibility could happen if the processor card and line card are using different versions of the Cisco IOS software, which typically would occur because of an OIR of the main processor card.

Recommended Action Reload the microcode on the line card to resolve the problem.

`%UBR10K_REDUNDANCY-4-RP_HA_STDBY_INCONSISTENT: Standby PRE dropping inconsistent sync messages. Error count [int] .REMOTE BOARD not inserted.`

Explanation An inconsistency was detected within the PRE configuration and data synchronization code. This can occur under normal situations if a cable line card is reset or if a cable line card switchover occurs while the standby PRE is still coming up.

Recommended Action This message can occur when a cable line card resets or switches over while the secondary PRE module of a router is coming up. If this is the case, the message can be ignored, because the two PRE modules resynchronize their databases when such errors occur. If the problem occurs under another condition or if the error count is greater than 1, futher logging can be turned on with the "debug cr10k-rp ha-consistency" command, and dumps of the inconsistent sync messages will be logged during the next time the stanby PRE module comes up. If this message recurs, copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

UBR10KTCC

The messages in this section concern the operation of the Timing Communication Control Plus (TCC+) card.

`%UBR10KTCC-2-ACTIVE_TCC: TCCplus card [dec]/[dec] is active with [chars] as clock reference`

Explanation The indicated TCC+ Card became active.

Recommended Action No action is needed.

`%UBR10KTCC-1-BADCLK: Cable Line Card [dec]/[dec] reports Bad Clock Status for TCCplus card in [dec]/1`

Explanation An error occurred in the clock signal when it was received on the BackPlane.

Recommended Action Check that the reference sources are correctly plugged into the proper connectors on the TCC+ card. Verify that the reference sources are providing a valid signal. If this does not correct the problem, replace the TCC+ card. If the problem persists, copy the error message exactly as it appears on the console or in the system log. Issue the **show cable clock** and **show tech-support** 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 tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

`%UBR10KTCC-1-BADTCC: TCCplus card in [dec]/1 put under maintenance due to: [chars]`

Explanation The system detected a possible hardware problem with the indicated TCC+ card and put the card into maintenance mode.

Recommended Action Remove the indicated TCC+ card and reinstall it. If this does not correct the problem, replace the TCC+ card. This error message can occasionally occur when the TCC+ card is manually reset using the **hw-module reset** command. If so, upgrade the Cisco uBR10012 router to Cisco IOS Release 12.2(8)BC1 or a later release.

`%UBR10KTCC-1-BLKCMD: Schooner System IPC failure for TCCplus card`

Explanation A blocking command sent to the TCC+ card failed. This typically indicates that the TCC+ card was not fully initialized and ready when the processor sent the command to it.

Recommended Action This error message can occasionally occur during system power-on and reset, or when the TCC+ card is manually reset using the **hw-module reset** command. If this is the case, the error message can be ignored as long as the system is operational. If the message occurs repeatedly at other times, remove the indicated TCC+ card and reinstall it. Also, upgrade the Cisco uBR10012 router to Cisco IOS Release 12.2(11)BC2 or later release. If this does not correct the problem, replace the TCC+ card.

If the problem persists, copy the error message exactly as it appears on the console or in the system log. Issue the **show cable clock** and **show tech-support** 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 tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

`%UBR10KTCC-4-CHG_CLK_REF: Clock reference source changed to [chars], TCCplus card [dec]/[dec]`

Explanation The clock reference source has been changed, either because the previous source reference was lost, or because the Primary or Secondary T1 reference on the active TCC+ card has become available again.

Recommended Action Check that the reference sources are correctly plugged into the proper connectors on the TCC+ card, and verify that the reference sources are providing a valid signal. If they are present and providing accurate signals, no action is needed. Otherwise, correct the problem with the reference source. If this does not correct the problem, replace the TCC+ card.

`%UBR10KTCC-3-EVNTLEN: TCCplus card Event internal error, [chars] [dec] [dec]`

Explanation The TCC+ card is reporting an internal event error, indicating a possible software fault.

Recommended Action This error message can occasionally occur during system power-on and reset. If the message occurs at other times, reinstall or replace the TCC+ card. If this does not correct the problem, upgrade the Cisco uBR10012 router to Cisco IOS Release 12.2(11)BC2 or later release. If the problem persists, copy the error message exactly as it appears on the console or in the system log. Issue the **show cable clock** and **show tech-support** 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 tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

`%UBR10KTCC-1-LCLOSC: Cable Line Card [dec]/[dec] using the local oscillator`

Explanation An error occurred in the clock signal when it was received on the BackPlane.

Recommended Action Check that the reference sources are correctly plugged into the proper connectors on the TCC+ card. Verify that the reference sources are providing a valid signal. If this does not correct the problem, replace the TCC+ card. If the problem persists, copy the error message exactly as it appears on the console or in the system log. Issue the **show cable clock** and **show tech-support** 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 tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

```
%UBR10KTCC-2-LOS: Loss of signal with clock reference [chars] in TCCplus card
[dec]/[dec]
```

Explanation The clock reference source coming into the TCC+ card was lost.

Recommended Action Check that the reference sources are correctly plugged into the proper connectors on the TCC+ card. Verify that the reference sources are providing a valid signal. If this does not correct the problem, replace the TCC+ card.

```
%UBR10KTCC-1-NOTCC: No working TCCplus card available in the system
```

Explanation No TCC+ card has been installed in the system. If a TCC+ card is installed, the system might have put the card into maintenance mode because of a hardware problem. This message can also occasionally appear during a switchover of PRE-1 modules, when the secondary PRE-1 module misses the initial keepalive message from the active TCC+ card.

Recommended Action If this message appears only during switchovers, it can be ignored. Alternatively, upgrade the Cisco uBR10012 router to Cisco IOS Release 12.2(15)BC2 or later release, which include an enhancement to the switchover timers to ensure the keepalive message from the TCC+ card is not missed. Otherwise, use the **show cable clock** command to verify whether a TCC+ card is installed and operational. The Cisco uBR10012 router requires at least one working TCC+ card for normal operations, so install at least one TCC+ card in the chassis. If a TCC+ card is installed, remove it and reinstall it. Verify that the router is running Cisco IOS Release 12.2(11)BC2 or a later version of released software. If this does not correct the problem, replace the TCC+ card. If possible, install redundant TCC+ cards to avoid this problem in the future.

```
%UBR10KTCC-1-SWTCHERR: Unable to switch TCCplus card configuration. Other card is
not present or in Maintenance
```

Explanation The system encountered a failure in the active TCC+ card and attempted to switch to the backup TCC+ card, but the second card is either not present or is already in maintenance mode.

Recommended Action Remove and reinsert the TCC+ cards. If this does not correct the problem, replace at least one TCC+ card. If other error messages indicate a clock reference problem, check that the reference sources are correctly plugged into the proper connectors on the TCC+ card. Also, verify that the reference sources are providing a valid signal. If the problem persists, 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.

UBRIFCON

The messages in this section are generated by the subsystem that generates the processes for a console session on the Cisco uBR10012 router.

`%UBRIFCON-3-NOPROC: Unable to create the if-console background process`

Explanation The system was unable to create a background process to handle the interface console data from the line cards.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. 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, especially the number of processes and memory usage. 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.

`%UBRIFCON-3-NOQUEUE: Unable to create the if-console background queue`

Explanation The system was unable to create a background process queue to handle the interface console data from the line cards.

Recommended Action Display the running configuration with the **show running-config** command, and look for any commands that might be allocating large amounts of memory for specific buffers, such as the **logging buffered** command. 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, especially the number of processes and memory usage. 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.

VPA

`%VPA-3-RESOURCE_ERROR: [chars] ([hex], [hex], [hex], [hex]) [chars]`

Explanation Allocation of required resource failed during initialization of SPA interface. The SPA interface probably is not functioning.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%VPA-3-SOFTWARE_ERROR: [chars] ([hex], [hex], [hex], [hex]) [chars]`

Explanation A software error has been detected during initialization of SPA interface. The SPA interface probably is not functioning.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%VPA_CONSOLE-3-CANTSEND: Cannot send VPA console messages.`

Explanation An error occurred while a VPA console message was being sent via the IPC. This condition might result from an IPC malfunction.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%VPA_CONSOLE-3-INITFAIL: VPA console initialization error: [chars]`

Explanation A failure occurred during initialization of the VPA console subsystem. The VPA console may not be functioning.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.

`%VPA_CONSOLE-3-NOBUF: No packet buffer available for sending VPA console messages`

Explanation An error occurred while the VPA console was attempting to acquire a packet buffer from the IPC buffer pool.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter (https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl). Also, perform a search of the Bug Toolkit (http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl). If you still require assistance, open a case with the Technical Assistance Center online (http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl), or contact your Cisco technical support representative.