

BTM Packet Errors

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Introduction

This document discusses the Broadband Trunk Module (BTM) packet error and provides steps to troubleshoot this error message.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document applies to the Cisco IGX" BTM with E1, E2, E3, and T3 network interface cards.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Error Definition

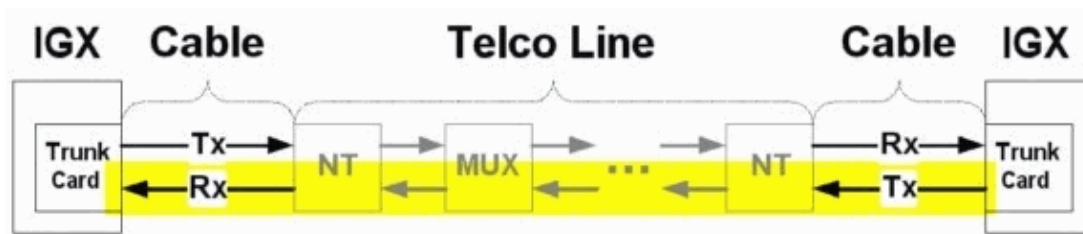
Packet errors indicate the number of failed Cyclic Redundancy Checks (CRCs) in the header of the received FastPackets. Corrupted FastPackets that fail the CRC are discarded. Packet error alarms indicate that the trunk quality is deteriorating. Possible causes include:

- A hardware malfunction
- Loose or unconnected shield ground wires
- Bridge taps
- Timing problems
- Electrical interference

Error Example

The likely location of equipment errors is highlighted in yellow in this diagram:

Packet Errs



- NT Network Termination
- MUX The Multiplexer in the Telco line path.
- Rx Receive
- Tx Transmit

Troubleshooting

The troubleshooting activities in this section are intrusive. Perform these steps in a maintenance window only in these situations:

- user traffic is affected
- the **dsprtrks** command output indicates that an error condition still persists, such as when the trunk is not in Clear-OK status

Both ends of the trunk must be active when you troubleshoot.

1. Issue the **dsprtrks** command to verify that the trunk is active. If the trunk number is not displayed in the **dsprtrks** command output, then the trunk is not active. To activate a trunk, issue the **uptrk** command.
2. Check the cabling between the trunk card and the next device upstream. Typically, this is the local Network Termination (NT).
 - a. Leave the local cabling connected to the trunk card, but remove it from the NT.
 - b. Connect the transmit (Tx) connector to the receive (Rx) connector of the open cable to loop it back to the local trunk card.
 - ◇ For E1, use a loopback plug.
 - ◇ For T3 or E3, use an appropriate BNC connector.Alternatively, you can place the local NT into the metallic loop toward the local Customer Premises Equipment (CPE). The local CPE is the local BTM card set.
 - c. Now, if the **dsprtrkerrs** command output stops incremental errors, then the cable and the local trunk module are working properly.
 - ◇ Monitor the **dsprtrkerrs** command output for a few minutes before you proceed to Step 3.
 - ◇ If the **dsprtrkerrs** command output continues to show incremental errors, then repeat Step 2.
3. Check the Telephone Company (Telco) line.

- a. Connect the Tx and Rx of the remote NT to loop it back to the Telco line.
 - ◇ For E1 cabling, use a loopback plug.
 - ◇ For T3 or E3 cabling, use an appropriate BNC cable.If no line test equipment is available, check whether the **dsptkerrs** command output (on the local trunk) continues to show incremental errors.
 - b. Monitor the **dsptkerrs** command output for at least five minutes before you proceed. If no further trunk errors are counted, the Telco line is functioning properly in one direction.
 - c. Reconnect the cable to the NT and perform the test in the opposite direction.
4. Make sure that the signal strength is sufficient and that the maximum cable length has not been exceeded. For T3 trunks, the Line Build-Out (LBO) is configured in the **line cable length** field of the **cnftrk** command. To correct the **line cable length** setting, delete the trunk.

Note: When you delete a trunk, you might remove all of the connections that are routed across the trunk. Therefore, before you delete the trunk, verify whether an alternate route for the connections exist, or record all of the connections and parameters that you will need to re-add the connections.

5. Ask the Telco to test the line. Line equipment malfunctions can cause framing problems.

If the problem persists after you perform the troubleshooting steps, contact Cisco Systems Technical Support:

- Phone: (800) 553-24HR or (408) 526-7209
- Website: Technical Support – Cisco Systems
- E-mail: tac@cisco.com

Related Information

- [WAN Switching Network Synchronization Fundamentals](#)
- [International Telephony Union \(ITU\) Recommendation G.704](#)
- [Cisco WAN Switching Solutions – Cisco Documentation](#)
- [Guide to New Names and Colors for WAN Switching Products](#)
- [Software Center – WAN Switching Software](#)
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