

BTM Loss of Signal Errors

Document ID: 10854

- Introduction**
- Prerequisites**
 - Requirements
 - Components Used
 - Conventions
- Error Definition**
- Error Example**
- Troubleshooting**
- Related Information**

Introduction

This error applies to the IGX broadband trunk module (BTM) with E1, E2, E3, and T3 backcards.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

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

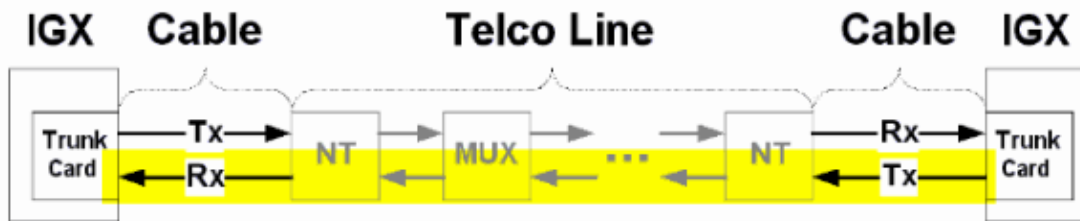
Error Definition

This statistical trunk error indicates that a loss of signal (LOS) has occurred. The BTM logs a LOS error when the signal level at the receiver falls below an acceptable level. LOS is a physical layer error and typically results in an integrated alarm.

LOS indicates a trunk is experiencing losses in signal of such short duration that an integrated alarm is not declared.

Error Example

The likely location of equipment errors is shown in yellow:



Packet Err

NT = Network Termination

MUX = Multiplexer in Telco line path

Tx = Transmit

Rx = Receive

12.gif

Troubleshooting

These troubleshooting steps are intrusive. Perform them in a maintenance window only if user traffic is affected or if the **dsprks** command output indicates the trunk is in the `Loss of Sig (RED)` state.

Both ends of the trunk must be active during troubleshooting.

1. Use the **dsprks** command to verify that the trunk is active. If the trunk number is not displayed in the **dsprks** command output, the trunk is not active. Use the **uptrk** command to activate a trunk.
2. Check the cables between the BTM and the next device upstream, which typically is the Network Termination (NT).

- a. Leave the local cable connected to the BTM backcard but remove it from the NT.

Remove one cable from the BTM backcard and use the disconnected end of the remaining cable to attach to the open receptacle. For a loopback, you must use BNC connectors to connect transmit (Tx) to receive (Rx) on the local BTM backcard. For E1, use a loopback plug.

- b. Alternatively, place the local NT into a metallic loop toward the local customer premises equipment (CPE).

The local CPE is the local BTM card set. If the trunk status in the **dsprks** command output changes to `Clear-OK`, and the **dsprkerrs** command output does not show incremental errors, the cable and the local trunk module are functioning properly.

- c. Monitor the **dsprkerrs** command output for a few minutes before you proceed.

If the trunk status changes to `Clear-OK` or if errors no longer continue to increment, proceed to Step 3. If the trunk status does not change to `Clear-OK`, or if errors continue to increment, continue with Step 2.

3. Place a loopback plug for E1 or loopback cable for T3/E3 onto the BTM backcard connector to check the local hardware.

If the trunk status in the **dsprks** command output changes to `Clear-OK` and if the **dsprkerrs** command output does not show incremental errors, the BTM card set is functioning properly.

- a. Replace the cables and verify that the errors have stopped.
 - b. Wait at least ten seconds longer than the `Red Alm Out` timer setting in configured in the **cnfnodparm** command before you continue.
4. Contact your Telco and have the NT checked.

If the problem persists after you perform the troubleshooting steps, contact Cisco Systems Technical Support at (800) 553–24HR, (408) 526–7209, the Cisco Technical Support Website, or send e–mail to tac@cisco.com.

Related Information

- [IGX 8400 BTM Trunk Error Troubleshooting and Definitions](#)
 - [WAN Switching Network Synchronization Fundamentals](#)
 - [International Telecommunication Union \(ITU\), Recommendation G.704](#)
 - [Cisco WAN Switching Solutions – Cisco Documentation](#)
 - [Guide to New Names and Colors for WAN Switching Products](#)
 - [Downloads – WAN Switching Software](#)
 - [Technical Support – Cisco Systems](#)
-

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2009 – 2010 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

Updated: Apr 17, 2009

Document ID: 10854
