UXM Frame Sync Errors

Introduction

This document discusses Universal Switching Module (UXM) Frame Sync errors.

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, refer to the Cisco Technical Tips Conventions.

Error Definition

This error applies to the IGX UXM with T3 backcards.

The loss of frame synchronization condition occurs when errors in the Digital Signal Level 3 (DS3) framing pattern are detected by the UXM backcard receiver. This error represents consecutive errors in the terminal framing bits.

The UXM expects C−bit framing for the DS3 interface.

Error Example

The likely location of equipment errors is highlighted in yellow.
Troubleshoot

These troubleshooting activities are intrusive. Perform these steps in a maintenance window only if user traffic is affected or if `dsptrks` indicates an error condition still persists such as when the trunk is not in `Clear_OK`.

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

1. Issue the `dsptrks` command to verify that the trunk is active.
   
   If the trunk number does not display in the `dsptrks` screen, the trunk is not active. Issue the `uptrk` command in order to activate a trunk.

2. Check line coding and line framing settings with the `dsptrkcnf` command in order to verify they match the settings configured on the Telco side of the trunk.

3. Check `dsptrkrerrs` for other evidence of a bad line.

   Bursts of Line Code Errs could indicate a timing problem. Check to see if the trunk's configuration reflects whether the Telco provides clock or expects clock.

4. Check the local hardware by placing a loopback cable onto the T3 connector on the backcard of the trunk module.

   If the trunk status in `dsptrks` changes to `Clear_OK`, and if `dsptrkrerrs` no longer shows incremental errors, then the trunk module and backcard work properly.

   a. Replace the cabling.
   b. Wait at least ten seconds longer than the Red Alm Out timer setting in `cnfrtrkparm` before you continue.

5. Make sure signal strength is sufficient and that the maximum cable length has not been exceeded.

   For T3 trunks, the line build–out (LBO) is configured from the Line cable length field of the `cnfrtrk` command. In order to correct the Line cable length setting, delete the trunk.

   **Note:** The deletion of the trunk can potentially remove all connections that route across the trunk. Before you delete a trunk, verify whether an alternate route for the connections exist, or record all connections and parameters as needed to re–add the connections.

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

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

- More BTM Trunk Alarm Types
- 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
- Technical Support – Cisco Systems