BTM Rx Hi−Pri Pkt Drp Errors

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Introduction

This document provides information you can use to troubleshoot the broadband trunk module (BTM) Rx Hi−Pri Pkt Drp 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 BTM with E1, E2, E3, and T3 backcards.

BTM packet drop errors indicate the number of cells discarded from these trunk queues.

| Voice                     | Voice activity detection (VAD) voice traffic.                                      |
|---------------------------|=====================================================================================|
| Timestamped (TS)          | Low−speed data and voice−signaling traffic.                                        |
| Non−timestamped (Non−TS) | High−speed data, non−VAD voice, and modem traffic.                                 |
| Control Card (CC)         | Network processor module (NPM) and the first two packets of talkspurt traffic.       |
|                           | (This was the High Priority queue.)                                                 |
Bursty data A (BData A)  Non-Foresight Frame Relay and high-level data link control (HDLC) frame-forwarded traffic.

Bursty data B (BData B)  Foresight Frame Relay and HDLC frame-forwarded traffic.

RX Hi-Pri Pkt Drp causes include:

- The high-priority queue that carries CC packets can overflow during periods of unusually high internodal traffic. The internodal protocol is robust enough to recover from the loss of a small number of CC messages. Sustained periods of RX Hi-Pri Pkt Drp errors can cause Comm Fails between nodes, which can lead to Comm Break and unreachable nodes.

RX Hi-Pri Pkt Drp errors rarely occur in networks with T1 trunks or greater bandwidth. When accompanied by Comm Fail and Comm Break messages in dsplog output, RX Hi-Pri Pkt Drp errors require troubleshooting by Cisco Technical Support.

- Misconfigured trunk parameters as indicated in the SuperUser–level command cnftrkparm.

Error Example

The likely location of equipment errors is highlighted in yellow.

<table>
<thead>
<tr>
<th>IGX</th>
<th>Cable</th>
<th>Telco Line</th>
<th>Cable</th>
<th>IGX</th>
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</thead>
<tbody>
<tr>
<td>Trunk Card</td>
<td>Tx</td>
<td>MUX</td>
<td>Rx</td>
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<tr>
<td>NT (Network Termination)</td>
<td>MUX (Multiplexer in Telco Line Path)</td>
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<tr>
<td></td>
<td>Tx (Transmit)</td>
<td>Rx (Receive)</td>
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</table>

Troubleshoot

Complete these steps in order to troubleshoot the Rx Hi-Pri Pkt Drp error.

1. Check if there is more than one trunk between the IGX that experiences RX Hi-Pri Pkt Drp errors and the rest of the network.
   a. Issue the dsptrks command in order to verify the number of routing trunks at the local IGX.
   b. If more than one trunk to the network exists, issue the SuperUser–level drtop command to identify the trunk that CC traffic uses at the local IGX. The Via Trk column of the drtop display indicates which trunks are used for CC traffic at the local IGX.
   c. Issue the dspnds command to determine if unreachable nodes exist on the network.
   d. Issue the cnftrk command and set Restrict PCC traffic to Yes to route CC traffic off the trunk that experiences RX Hi-Pri Pkt Drp errors.
2. Verify that all trunk parameters are configured correctly.
a. Compare the problem trunk configuration to the default values or other trunks of the same type that work properly.
b. Issue the `cnftrkparm` command and verify the settings of the HighPri queue.
c. If a configuration difference is noted between the trunk that experiences RX Hi-Pri Pkt Drp errors and a working trunk at the same IGX, contact Cisco Technical Support for further assistance.

3. Check all nodal parameters with the use of the SuperUser–level `cnfnodeparm` command.

   a. Compare the settings at the IGX that experiences the RX Hi-Pri Pkt Drp errors to an error–free IGX.
   b. If a configuration difference is noted between the IGX that experiences RX Hi-Pri Pkt Drp errors and the error–free IGX, contact Cisco Technical Support for further assistance.

4. Contact Cisco Technical Support to identify the cause for persistent RX Hi-Pri Pkt Drp errors.

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