Standby PRBS Errors

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Introduction

This document explains standby Pseudo–Random Bit Sequence (PRBS) errors on the Cisco BPX and provides an approach to resolve the 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 Indications

The Cisco BPX has redundant buses for point–to–point links. When a standby Broadband Controller Card (BCC) is present and you have fully updated the BCC, the Serial Interface Unit (SIU) generates a test pattern on the inactive bus transmitter. The SIU receives the same pattern on the SIU receiver on the inactive bus. The standby BCC provides the loopback of the signal.

Standby PRBS errors indicate the failure of a background test of the standby bus. This test sends and receives a PRBS over the standby circuitry. The test failure can indicate a problem with the reporting card, the backplane, or the standby BCC. The errors warn that, if a BCC switchover takes place, the card may not be able to transmit or receive data properly on the backplane.

Error Resolution

The resolution of standby PRBS errors is a process of elimination. If multiple cards report the error, the error can mean that the BCC crosspoint switch is faulty or the configuration was poor. When a single card has

counts that increment, you should either switch the card or switch the standby BCC. (You can try to reset each card first, but this reset is not likely to resolve the problem.) If possible, use a flashlight to inspect the backplane pins while you remove the cards for replacement. Look for any bent pins. As a final option, you can replace the backplane.

The report of a failure on the card can be the result of a bad SIU chip, failure of the report mechanism, or poor workmanship on any of the associated components. These are important failures to correct because the failures indicate that the card has problems with the transmission of data to other cards when you issue a **switchcc** command.

Related Information

- **Cisco WAN Switching Solutions – Cisco Documentation**
- **Guide to New Names and Colors for WAN Switching Products**
- **Downloads – WAN Switching Software (registered customers only)**
- **Technical Support & Documentation – Cisco Systems**

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