Troubleshooting the System

This chapter provides information and instructions for using the system command line interface (CLI) for troubleshooting any issues that may arise during system operation.

Test Commands

In the event that an issue was discovered with an installed application or line card, depending on the severity, it may be necessary to take corrective action.

The system provides several redundancy and fail-over mechanisms to address issues with application and line cards in order to minimize system downtime and data loss. These mechanisms are described below.

Using the PPP Echo-Test Command

The system provides a mechanism to verify the Point-to-Point Protocol session of a particular subscriber by sending Link Control Protocol (LCP) packets to the mobile node. This functionality can be extremely useful in determining the quality of the air link and delays that may occur.

The command has the following syntax:

ppp echo-test { callid *call_id* **| ipaddr** *ipv4_address* **| msid** *ms_id* **| username** *subscriber_name* **}**

Keyword/Variable	Description
callid*call_id*	Specifies that the test is executed for a subscriber with a specific call identification number (callid). *call_id* is the specific call identification number that you wish to test.
ipaddr*ip_address*	Specifies that the test is executed for a subscriber with a specific IP address. *ipv4_address* is the specific IPV4 address that you wish to test.
msid*ms_id*	Specifies that the test is executed for a subscriber with a specific mobile station identification (MSID) number. *ms_id* is the specific mobile station identification number that you wish to test.

Keyword/Variable	Description
username*subscriber_name*	Specifies that the test is executed for a subscriber with a specific username. *subscriber_name*is the specific username that you wish to test.

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Important   For descriptions of the keywords and variables, see the *CLI Reference Guide*.

The following displays a sample of this command\'s output showing a successful PPP echo-test to a subscriber named *user2aaa*.

```
USERNAME: user2aaa   MSID: 0000012345   CALLID: 001e8481
    Tx/Rx 1/0   RTT(min/max/avg) 0/0/0
USERNAME: user2aaa   MSID: 0000012345   CALLID: 001e8481
    Tx/Rx 1/1   RTT(min/max/avg) 77/77/77 (COMPLETE)
```