



Monitoring the Service

This chapter provides information for monitoring service status and performance using the **show** commands found in the Command Line Interface (CLI). These commands have many related keywords that allow them to provide useful information on all aspects of the system ranging from current software configuration through call activity and status.

The selection of keywords described in this chapter is intended to provide the most useful and in-depth information for monitoring the system. For additional information on these and other **show** command keywords, refer to the *Command Line Interface Reference*.

In addition to the CLI, the system supports the sending of Simple Network Management Protocol (SNMP) traps that indicate status and alarm conditions. Refer to the *SNMP MIB Reference Guide* for a detailed listing of these traps.

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Monitoring System Status and Performance

This section contains commands used to monitor the status of tasks, managers, applications and other software components in the system. Output descriptions for most of the commands are located in the *Statistics and Counters Reference*.

Table 1: System Status and Performance Monitoring Commands

To do this:	Enter this command:
View Congestion-Control Statistics	
View Congestion-Control Statistics	show congestion-control statistics { a11mgr gtpcmgr hamgr l2tpmgr }
View Subscriber Information	
View session resource status	show resources session
Display Subscriber Configuration Information	
View locally configured subscriber profile settings (must be in context where subscriber resides)	show subscribers configuration username <i>subscriber_name</i>

To do this:	Enter this command:
View remotely configured subscriber profile settings	show subscribers aaa-configuration <i>username subscriber_name</i>
View Subscribers Currently Accessing the System	
View a listing of subscribers currently accessing the system	show subscribers all
Display PCF-Summary Session Counters	
View PCF-summary session counters	show session counters pcf-summary
Display Session State Statistics	
View session state statistics	show session progress
Display Session State PCF Statistics	
View session state PCF statistics	show session progress pcf all
Display Session Subsystem and Task Statistics Important Refer to the System Software Task and Subsystem Descriptions appendix in the System Administration Guide for additional information on the Session subsystem and its various manager tasks.	
View A11 Manager statistics	show session subsystem facility a11mgr all
View AAA Manager statistics	show session subsystem facility aaamgr all
View FA Manager statistics	show session subsystem facility famgr all
View L2TP demux manager statistics	show session subsystem facility l2tpdemux all
View L2TP Manager statistics	show session subsystem facility l2tpmgr all
View Session Manager statistics	show session subsystem facility sessmgr all
View Session Recovery Status	
View session recovery status	show session recovery status [verbose]
Display Session Disconnect Reasons	
View session disconnect reasons with verbose output	show session disconnect-reasons
View Point-to-Point Protocol Statistics	
Display a Summary of PPP Counter Status	
View cumulative subscriber session PPP counters	show ppp
Display PPP Counters for a Specific Subscriber	
View individual subscriber session PPP counters	show ppp username <i>subscriber_name</i>
View individual subscriber session PPP error and data counters	show ppp counters username <i>subscriber_name</i>

To do this:	Enter this command:
View individual subscriber session detailed PPP counters	show ppp full username <i>subscriber_name</i>
Display PPP Statistics for PDSN Services	
Views PPP statistics for a all PDSN services	show ppp statistics pdsn-service
Views PPP statistics for a specific PDSN service	show ppp statistics pdsn-service <i>service_name</i>
View R-P Interface Statistics	
Display a Summary of R-P Interface Counter Status	
View cumulative R-P interface counters for every subscriber session currently in progress	show rp
Display R-P Interface Counters for a Specific Subscriber	
View R-P interface counters for a specific subscriber	show rp full username <i>subscriber_name</i>
Display R-P Interface Statistics for PDSN Services	
View R-P interface statistics for all PDSN services	show rp statistics pdsn-service
View R-P interface statistics for a specific PDSN service	show rp statistics pdsn-service <i>service_name</i>
View Mobile IP Foreign Agent Statistics	
Display Mobile IP FA Information for a Specific Subscriber	
View Mobile IP FA counters for a specific subscriber	show mipfa full username <i>subscriber_name</i>
Display Mobile IP Statistics for FA Services	
View statistics for a specific FA service	show mipfa statistics fa-service <i>service_name</i>
Display Mobile IP FA Counters	
View Mobile IP FA counters for individual subscriber sessions	show mipfa counters
Display RADIUS Server States Important These commands can display 10 state transition histories of RADIUS accounting and authentication servers (Active/Not responding/Down States). For a complete explanation of RADIUS server states, refer to the RADIUS Server State Behavior appendix in the AAA Administration and Reference.	
View RADIUS authentication server group server states for a specific group	show radius authentication servers radius group <i>group_name</i> detail

To do this:	Enter this command:
View RADIUS accounting server group server states for a specific group	show radius accounting servers radius group group_name detail
Display RADIUS Protocol Counters	
View cumulative RADIUS protocol counters	show radius counters all
View RADIUS protocol counter summary of RADIUS authentication and accounting	show radius counters summary
View L2TP Information	
Display L2TP Session Information	
View cumulative statistics for all sessions processed within the current context Important If this command is executed from within the localout-of-band context, cumulative session information is displayed for all contexts.	show l2tp sessions
View all information pertaining to the L2TP session of a specific subscriber	show l2tp session full username subscriber_name
Display L2TP Statistics	
View statistics for a specific LAC service Important If this command is executed from within the localout-of-band context, cumulative session information is displayed for all contexts.	show l2tp statistics lac-service service_name
Display L2TP Tunnel Information	
View all tunnels currently being facilitated by LAC services within a specific context	show l2tp tunnels all
Display IPSec Security Association Statistics	
View IPSec security association statistics for crypto maps in the current context	show crypto ipsec security-associations statistics
Display Pre-shared ISAKMP Keys	
View pre-shared keys received from peer security gateways as part of the Diffie-Hellman exchange	show crypto isakmp keys
Display IPSec Statistics	
View cumulative IPSec statistics for the current context	show crypto statistics

Clearing Statistics and Counters

It may be necessary to periodically clear statistics and counters in order to gather new information. The system provides the ability to clear statistics and counters based on their grouping (PPP, MIPHA, MIPFA, etc.).

Statistics and counters can be cleared using the CLI **clear** command. Refer to the *Command Line Interface Reference* for detailed information on using this command.

