



Monitoring the System

This chapter provides information for monitoring system 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 *Exec Mode show Commands* chapter of the *Command Line Interface Reference*.



Note A VPC-DI or VPC-SI virtual machine (VM) has no knowledge of the hypervisor under which it is running or the commercial off-the-shelf (COTS) server. To monitor the status of the hypervisor and COTS server, refer to the user documentation supplied with these components of this system.



Important In Release 21.1 and forward, use the **do show** command to run all Exec Mode **show** commands while in Global Configuration Mode. It is not necessary to exit the Config mode to run a **show** command. The pipe character | is only available if the command is valid in the Exec mode.

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SNMP Notifications

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

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 Administrative Information	
Display Current Administrative User Access	
View a list of all administrative users currently logged on the system	show administrators
View the context in which the administrative user is working, the IP address from which the administrative user is accessing the CLI, and a system generated ID number	show administrators session id
View information pertaining to local-user administrative accounts configured for the system	show local-user verbose
View statistics for local-user administrative accounts	show local-user statistics verbose
View information pertaining to your CLI session	show cli
Determining System Uptime	
View system uptime (time since last reboot)	show system uptime
View NTP Server Status	
View NTP servers status	show ntp status
View System Resources	
View all system resources such as CPU resources and number of managers created	show resources [cpu]
View System Alarms	
View information about all currently outstanding alarms	show alarm outstanding all verbose
View system alarm statistics	show alarm statistics
View Congestion-Control Statistics	
View Congestion-Control Statistics	show congestion-control statistics
View Remote Management Statistics	
View SNMP notification statistics	show snmp notifies
View SNMP access statistics	show snmp accesses
View SNMP trap history	show snmp trap history
View SNMP Trap Statistics	show snmp trap statistics
View Port Counters	

To do this:	Enter this command:
View datalink counters for a specific port	show port datalink counters <i>slot#/port#</i>
View Port Network Processor Unit (NPU) counters for a specific port	show port npu counters <i>slot#/port#</i>
View System Information and Network Interfaces	
View information about system components, storage devices and network interfaces	show hardware
View Card Information and Statistics	
View diagnostics for all cards or for a card in a specific slot/port; (for VPC, slot = VM)	show card diag <i>slot/port</i>
View detailed information for all cards or a card in a specific slot/port (for VPC, slot = VM)	show card info <i>slot/port</i>
View operating status for all cards or VMs	show card table
View the contents of the boot configuration (param.cfg) file [VPC-DI]	show cloud configuration
View information about installed hardware and whether it is optimal or not for a specific card or all cards in the system [VPC-DI]	show cloud hardware
View monitored statistics about the VPC-DI network relative to a specific card [VPC-DI]	show cloud monitor di-network

**Important**

The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

**Important**

Some commands have different outputs depending on the platform type.

Monitoring ASR 5500 Hardware Status

Use the commands contained in this section to monitor the status of the hardware components in the chassis. For output descriptions for most of the commands, refer to the *Statistics and Counters Reference*.



Important The commands or keywords and variables are dependent on platform type, product version, and installed license(s). Some commands produce different outputs, depending on the platform type.

Table 2: Hardware Monitoring Commands

To do this:	Enter this command:
View the Status of the Power System	
View the status of the PFUs	show power chassis
View the power status of the individual chassis slots	show power all
View the Status of the Fan Trays	
View the status of the fan trays, including current relative speeds and temperatures.	show fans
Determine the Status of Installed Cards	
View a listing of installed application cards	show card table
Perform a Hardware Inventory	
View all cards installed in the chassis and their hardware revision, part, serial, assembly, and fabrication numbers	show hardware inventory
View details of a specific card. Output contains same information as output of both show hardware inventory and show hardware version board	show hardware card <i>slot_number</i>
View Card Diagnostics	
View boot, power and temperature diagnostics	show card diag <i>slot_number</i>
View runtime, or real time, information	show card info <i>slot_number</i>
View the LED Status of All Installed Cards	
Note Refer to the descriptions of card-level and system-level LEDs in the <i>ASR 5500 Installation Guide</i> for detailed information.	
View the LED status for all installed cards	show leds all
View Available Physical Ports	
View ports that are available to the system	show port table
View detailed information for a specific port	show port info <i>slot_number/port_number</i>
View CPU Resource Information	
View CPU resources	show resources { <i>cpu</i> <i>session</i> }
View CPU usage information	show cpu table; show cpu info
View Component Temperature Information	
View current component temperatures	show temperature

To do this:	Enter this command:
View maximum temperatures reached since last timestamp.	show maximum-temperatures

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 *Exec Mode Commands* chapter of the *Command Line Interface Reference* for detailed information on using this command.

