



## show cpu

This chapter includes the **show cpu** command output tables.



**Important** The outputs of **show cpu** commands vary based on platform ASR 5000 or ASR 5500, VPC (virtualized), card type and the StarOS release.

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## show cpu info

*Table 1: show cpu info Command Output Descriptions*

Field	Description
Card	Displays the slot number of the card.
CPU	Displays the CPU number as an integer.
Status	Indicates the CPU status: <b>Active:</b> The CPU is active and available for session processing. <b>Standby:</b> The CPU is on standby. Also indicates if <b>Kernel Running</b> and <b>Tasks Running</b> .
Load Average	Indicates the average CPU load.
Total Memory	Indicates the total physical memory available to the CPU in megabytes.
Kernel Uptime	Indicates how long the kernel has been up since last boot in Days, Hours and Minutes.
Last Reading:	Displays current CPU usage statistics (snapshot).
CPU Usage	Indicates the percentage of use for user, system, I/O, IRQ and idle. In VPC systems, the value displayed excludes the poll CPU values.

Field	Description
Poll CPUs	Indicates the number of the IFTASK threads. The IFTASK threads are omitted from the CPU utilization calculation for this command output as well as the bulk statistics output. This means that the reported CPU utilization is more accurate.
Processes / Tasks	Indicates the total number of running processes and tasks.
Network	Indicates the number of packets and bytes received and transmitted.
File Usage	Indicates the number of open and available files.
Memory Usage	Indicates the amount of physical memory used in bytes and as a percentage of available memory.
Maximum/Minimum:	Displays maximum and minimum usage statistics.
CPU Usage	Indicates the percentage of use for user, system, I/O, IRQ and idle.
Poll CPUs	Indicates the number of the IFTASK threads. The IFTASK threads are omitted from the CPU utilization calculation for this command output as well as the bulk statistics output. This means that the reported CPU utilization is more accurate.
Processes / Tasks	Indicates the number of running processes and tasks.
Network	Indicates the number of packets and bytes received and transmitted.
File Usage	Indicates the number of open and available files.
Memory Usage	Indicates the amount of physical memory used in bytes and as a percentage of available memory.  <b>Important</b> In release 21.1, <b>show cpu info</b> outputs are standardized to use Megabytes (M) as the unit of measurement for memory usage.

## show cpu info verbose

Table 2: show cpu info verbose Command Output Descriptions

Field	Description
Card	Displays the slot number of the card.
CPU	Displays the CPU number as an integer.
Status	Indicates the CPU status:  <b>Active:</b> The CPU is active and available for session processing. <b>Standby:</b> The CPU is on standby.  Also indicates <b>Kernel Running</b> and <b>Tasks Running</b> .
Load Average	Indicates the average CPU load.

Field	Description
Total Memory	Indicates the total physical memory available to the CPU in megabytes.
Kernel Uptime	Indicates how long the kernel has been up since last boot in Days, Hours and Minutes.
Last Reading:	Displays current CPU usage statistics (snapshot).
CPU Usage All	Indicates the percentage of use across all cores for user, system, I/O, IRQ and idle. In VPC systems, the value displayed excludes the poll CPU values.
Core <i>n</i>	Indicates the percentage of use for an individual core within the CPU for user, system, I/O, IRQ and idle.  (VPC-DI only) Any Cores that are indicated as Poll CPUs are IFTASK threads that are not included in the CPU calculations.
Poll CPUs	(VPC-DI only) Number of IFTASK threads that are not included in the CPU calculations. reported by this command.
Core <i>n</i>	(VPC-DI only) Indicates the percentage of use for an individual Poll CPU core.  <b>Note</b> 100% CPU utilization for DPDK is an expected behavior as the Poll Mode Driver (PMD) thread runs continuously on a core as per the DPDK driver architecture.
Processes / Tasks	Indicates the total number of running processes and tasks.
Network loeth0	Indicates the number of packets and bytes received and transmitted on the management interface.
Network ports <i>_p</i>	Indicates the number of packets and bytes received and transmitted on a service interface ( <i>slot_port</i> ).
File Usage	Indicates the number of open and available files.
Memory Usage	Indicates the amount of physical memory used in bytes and as a percentage of available memory.
Memory Usage	Indicates the amount of physical memory used in bytes and as a percentage of available memory.  <b>Important</b> In release 21.1, <b>show cpu info</b> outputs are standardized to use Megabytes (M) as the unit of measurement for memory usage.
Memory Details:	Displays more detailed memory usage statistics.
Static	Indicates the amount of memory used by the kernel and system files in megabytes.
System	Indicates the amount of memory used for temp storage, buffers and caches in megabytes.
Process/Task	Indicates the amount of memory used for processes and tasks.
Free	Indicates the amount of free (available) memory (including reserved).
Usable	Indicates the amount of unreserved available memory.

Field	Description
5-Minute Average	Displays the average CPU usage statistics for the last five minutes.
15-Minute Average	Displays the average CPU usage statistics for the last 15 minutes.

## show cpu table

Table 3: show cpu table Command Output Descriptions

Field	Description
CPU	Displays the number of the CPU in the format <i>slot_number/cpu_number</i> .
State	Indicates the CPU state as one of the following: <b>Active:</b> The CPU is active and available for session processing. <b>Standby:</b> The CPU is on standby.
Load	Indicates the CPU load for the following time intervals: <b>Now:</b> Current load <b>5min:</b> Load within the last 5 minutes <b>15min:</b> Load within the last 15 minutes
CPU-Usage	Indicates the CPU usage as a percentage for the following time intervals: <b>Now:</b> Current usage <b>5min:</b> Usage within the last 5 minutes <b>15min:</b> Usage within the last 15 minutes
Memory	Indicates the memory usage for the following time intervals: <b>Now:</b> Current usage <b>5min:</b> Usage within the last 5 minutes <b>15min:</b> Usage within the last 15 minutes  In addition, the <b>total</b> memory available on the CPU is displayed.  The PSC has two CPUs, the main CPU (CPU 0) contains 16 GB of memory. The second CPU is contained within the card's NPU and provides an additional 512 MB of memory. The PSC2 has two CPUs, the main CPU (CPU 0) contains 32 GB of memory.