



show card

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



Important

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

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show card diag

Table 1: show card diag Command Output Descriptions

| Field | Description |
|----------|---|
| Counters | <p>Displays boot counter information for the card. The following counters are reported:</p> <ul style="list-style-type: none"> • Successful warm boots: Warm boots occur upon a software reset of the card. • Successful cold boots: Cold boots occur when the card experiences a hardware reboot. • Total boot attempts: This is the sum of successful and unsuccessful warm and cold boots. If this number is not equal to the total number of successful warm boots and the number of successful cold boots, then boot failures have occurred. This situation may indicate a problem with this card that requires further investigation. • In Service Date: Timestamp indicating when this card was placed in service. <p>Each of the above counters provide a timestamp indicating the most recent occurrence.</p> <p>NOTE: Counters are <u>not</u> displayed for line card diagnostics.</p> |

| Field | Description |
|---|--|
| Status | <p>Status is reported for the following items:</p> <ul style="list-style-type: none"> • IDEEPROM Magic Number: Indicates whether or not the device map has been initialized. The ID EEPROM device stores hardware, diagnostic and software configuration data. • Boot Mode: Displays the current boot mode. – Normal (boot to StarOS, default mode), Extended diagnostics or Diagnostic CLI. • Card Diagnostics: Indicates the current status of the card's internal diagnostics. The two possible states are: Pass (all diagnostics passed) and Failed one or more diagnostics did not pass). • Current Failure: Indicates any failure that is currently being reported by this card. If no failures were detected, this item will display None. • Last Failure: Indicates the last failure reported by this card since its event log was last cleared. • Card Usable: Indicates whether or not the card is usable. "Usability" is based on the operational state of the card (active, standby, or offline), whether or not the Administrative state is enabled (the card is configured for use via software), and whether or not the card's interlock switch is locked. Either a Yes or a No will be displayed. • Last Reset Cause: Indicates the cause for the last reset of this card. <p>Note: This field only appears if a card reset has occurred.</p> |
| Boot/Diag Log ASR 5000 only | <p>Displays the contents of the boot and diagnostics log.</p> <p>NOTE: The boot and diagnostic log contents are <u>not</u> displayed for line card diagnostics.</p> |
| Error Log ASR 5000 only | <p>Displays the contents of the error log.</p> <p>NOTE: The error log contents are <u>not</u> displayed for line card diagnostics.</p> |
| Current Environment Not displayed for VPC | <p>Displays the results for the following measurements:</p> <ul style="list-style-type: none"> • Temperature measurements: Indicates the current operating temperatures and provides the maximum safe temperature for comparison. • Voltage measurements: Indicates the current input status for the various DC sources and provides the acceptable upper and lower limits for comparison. |

show card hardware (ASR 5000)

Table 2: show card hardware Command Output Descriptions (ASR 5000)

| Field | Description |
|---------------------------------|---|
| Common to All Card Types | |
| Card <number> | Slot number of the specified card. |
| Card Type | Description of the card in the specified slot, for example "System Management Card". |
| Card Description | SMC, PSCx, FELC, GELC/GLC2, QGLC, XGLC, CLC/CLC2, OLC/OLC2, SPIO, RCC |
| Part Number | Legacy part number (xxx-xx-xxxx xx). |
| Serial Number | Legacy part number (alphanumeric string). |
| CLEI Code | Common Language Equipment Identifier (CLEI) code. |
| UDI Product ID | Unique Device Identifier (UDI) Product Identifier (PID). |
| UDI Version ID | UDI version. |
| UDI Serial Number | UDI serial number (alphanumeric string). |
| UDI CLEI Code | UDI Common Language Equipment Identifier (CLEI) code. |
| UDI Top Assembly Number | UDI for top-level assembly. |
| UDI TAN Revision | UDI Top Assembly Number (TAN) revision level. |
| UDI Deviation Number | UDI deviation number (DEVNUM). |
| MAC Addresses | Media Access Controller hexadecimal starting address in format: xx-xx-xx-xx-xx-xx. |
| Switch Fabric Modes | Mode type – "control plane" and/or "switch fabric". |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| System Management Card | |
| Compact Flash | Status of PCMCIA flash memory card, for example "Present". |

| Field | Description |
|--|--|
| Type | Memory capacity of the Compact Flash card. |
| Model | Operational card type. |
| Serial Number | Serial number of this Compact Flash card. |
| PCMCIA1 | Status of front panel Personal Computer Memory Card International Association (PCMCIA) card, for example "Not Present". |
| Hard Drive 1 | Status of this hard drive, for example "present". |
| Type | Drive capacity in Mbytes. |
| Model | Manufacturer and model number. |
| Serial Number | Serial number of the hard drive. |
| SRM | Status, Reset, and Monitoring firmware. |
| BIOS | Basic Input/Output System. |
| CIF FPGA | Chassis Information (CIF) Field Programmable Gate Array (FPGA) firmware. |
| CPU 0 Type/Memory | Socket: 0, <processor type>, <processor speed>. |
| CPU 0 DIMM-A1 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-B1 P/N | Dual In-line Memory Module part number. |
| CPU 0 CFE/Diags | Common Firmware Environment/Diagnostic firmware. |
| Packet Processing Card (PSC, PSC2, PSC3, PSCA, PPC) | |
| NPU Microcode | Firmware running on the Network Processing Unit (NPU). |
| Slave SCB | Firmware component that allows non-SMC cards to communicate with the SMC over the system control bus (SCB). |
| PSR | Power, Status, and Reset firmware. |
| BIOS | Basic Input/Output System firmware. |
| DT FPGA, DT2 FPGA | Data Transport (DT) Field Programmable Gate Array (FPGA) firmware. |
| CPU 0 Type/Memory | Socket: 0, <processor type>, <processor speed>. Socket: 1, <processor type>, <processor speed>. Chipset: <components>. |
| CPU 0 DIMM-N0D0 P/N | Dual In-line Memory Module part number. |

| Field | Description |
|--|--|
| CPU 0 DIMM-N0D1 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N1D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N1D1 P/N | Dual In-line Memory Module part number. |
| CPU 1 Type/Memory | <processor type> <processor speed> <memory in MB> |
| CPU 0 CFE/Diags | Common Firmware Environment/Diagnostic firmware. |
| Line Cards (SPIO, RCC, FELC, GELC/GLC2, QGLC, XGLC, CLC/CLC2, OLC/OLC2) | |
| Slave SCB | Firmware component that allows non-SMC cards to communicate with the SMC over the system control bus (SCB). |
| FPGA | Field-Programmable Gate Array firmware. |
| SFP Info (Port 1 or 2) | Information about the Small Form-factor Pluggable (SFP) transceivers includes: Vendor Name, Vendor IEEE ID, P/N (part number), S/N (serial number, date). |

**Important**

The output of this command will also display other types of information relative to the CPUs and firmware running on the specific card types. This information varies based on the platform type.

show card hardware (ASR 5500)

Table 3: show card hardware Command Output Descriptions (ASR 5500)

| Field | Description |
|---------------------------------|--|
| Common to All Card Types | |
| Card <number> | Slot number of the specified card. |
| Card Type | Data Processing Card Data Processing Card 2 Management & 20x10Gb I/O Card Management 4x(10Gb&100Gb) I/O Card 2 System Status Card Fabric & 2x200GB Storage Card |
| Description | Card type – DPC, DPC2, MIO, MIO2, SSC, FSC. |

| Field | Description |
|-----------------------------------|---|
| Cisco Part Number | Cisco part number. |
| UDI Serial Number | Unique Device Identifier (UDI) serial number (alphanumeric string). |
| UDI Product ID | UDI Product Identifier (PID) [alphanumeric string]. |
| UDI Version ID | UDI version (alphanumeric string). |
| UDI Top Assem Num | UDI for top-level assembly. |
| Data Processing Card (DPC) | |
| Daughter Card #3 | Daughter card number. |
| Card Type | DPC CCK Daughter Card (crypto). |
| Description | DPC_CRYPT0_DC. |
| Starent Part Number | Legacy part number (xxx-xx-xxxx xx). |
| UDI Serial Number | UDI serial number (alphanumeric string). |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| BCF | Board Control FPGA firmware. |
| CAF | Control and Availability FPGA firmware. |
| CPU 0 Type/Memory | Socket 0: <processor type>, <processor speed> Socket 1: <processor type>, <processor speed> |
| CPU 0 DIMM-N0C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N0C1D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N0C2D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N1C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N1C1D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N1C2D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 BIOS | Basic Input/Output System. |

| Field | Description |
|--------------------------------------|---|
| CPU 0 i82599 | Intel 10GbE Controller firmware. |
| CPU 0 i82574 | Intel Gigabit Ethernet Controller firmware. |
| CPU 0 CFE | Common Firmware Environment version. |
| CPU 1 Type/Memory | Socket 0: <processor type>, <processor speed> Socket 1: <processor type>, <processor speed> |
| CPU 1 DIMM-N0C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N0C1D1 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N0C2D2 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N1C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N1C1D1 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N1C1D1 P/N | Dual In-line Memory Module part number. |
| CPU 1 BIOS | Basic Input/Output System. |
| CPU 1 i82599 | Intel 10 GbE Controller firmware. |
| CPU 1 i82574 | Intel Gigabit Controller firmware. |
| CPU 1 CFE | Common Firmware Environment version. |
| Data Processing Card 2 (DPC2) | |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| BCF2 | Board Control FPGA DPC2 firmware. |
| CAF2 | Control and Availability FPGA DPC2 firmware. |
| CPU 0 Type/Memory | Socket 0: <processor type>, <processor speed> Socket 1: <processor type>, <processor speed> |
| CPU 0 DIMM-N0C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N0C1D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N0C2D0 P/N | Dual In-line Memory Module part number. |

| Field | Description |
|-----------------------|--|
| CPU 0 DIMM-N1C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 BIOS | Basic Input/Output System. |
| CPU 0 i82599 | Intel 10GbE Controller firmware. |
| CPU 0 i210 | Intel Gigabit Ethernet Controller firmware. |
| CPU 0 CFE Loaded | Common Firmware Environment version. |
| CPU 0 CFE ROM | Multiple CFE versions. |
| CPU 0 DH89XXCC | Intel PCI Express root port. |
| CPU 1 Type/Memory | Socket 0: <processor type>, <processor speed> Socket 1: <processor type>, <processor speed> |
| CPU 1 DIMM-N0C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N0C1D1 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N0C2D2 P/N | Dual In-line Memory Module part number. |
| CPU 1 DIMM-N1C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 1 BIOS | Basic Input/Output System. |
| CPU 1 i82599 | Intel 10 GbE Controller firmware. |
| CPU 1 i210 | Intel Gigabit Controller firmware. |
| CPU 1 CFE Loaded | Common Firmware Environment version. |
| CPU 1 CFE ROM | Multiple CFE versions. |
| CPU 1 DH89XXCC | Intel PCI Express root port. |
| CPU 2 Type/Memory | Socket 0: <processor type>, <processor speed> Socket 1: <processor type>, <processor speed> |
| CPU 2 DIMM-N0C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 2 DIMM-N0C1D1 P/N | Dual In-line Memory Module part number. |
| CPU 2 DIMM-N0C2D2 P/N | Dual In-line Memory Module part number. |
| CPU 2 DIMM-N1C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 2 BIOS | Basic Input/Output System. |
| CPU 2 i82599 | Intel 10 GbE Controller firmware. |
| CPU 2 i210 | Intel Gigabit Controller firmware. |

| Field | Description |
|--------------------------------------|---|
| CPU 2 CFE Loaded | Common Firmware Environment version. |
| CPU 2 CFE ROM | Multiple CFE versions. |
| CPU 2 DH89XXCC | Intel PCI Express root port. |
| Management Input/Output (MIO) | |
| Daughter Card #<number> | Daughter card number. |
| Card Type | MIO 10x10Gb Daughter Card. MIO CCK Daughter Card (crypto). |
| Description | MDC MIO_CRYPT0_DC |
| Starent Part Number | Legacy part number (xxx-xx-xxxx xx) |
| Cisco Part Number | Cisco part number. |
| UDI Serial Number | Unique Device Identifier (UDI) serial number [alphanumeric string]. |
| Midplane: | Chassis EPROM information. |
| Card Type | Midplane EPROM Card. |
| MAC Addresses | Media Access Controller hexadecimal starting address in format: xx-xx-xx-xx-xx-xx. |
| MEC: | Midplane EEPROM Card. |
| Description | MEC. |
| Cisco Part Number | Cisco part number (nn-nnnnn-nn Ln). |
| UDI Serial Number | Unique Device Identifier (UDI) serial number [alphanumeric string]. |
| UDI Product ID | UDI Product Identifier (PID) [alphanumeric string]. |
| UDI Version ID | UDI version (alphanumeric string). |
| Midplane: | |
| Description | Midplane. |
| Cisco Part Number | Cisco part number (nn-nnnnn-nn Ln). |
| UDI Serial Number | UDI serial number (alphanumeric string). |
| Chassis: | |

| Field | Description |
|---|---|
| Description | Chassis. |
| Cisco Part Number | Cisco part number (nn-nnnnnn-nn Ln). |
| UDI Serial Number | UDI serial number (alphanumeric string). |
| UDI Product ID | Cisco Product Identifier (PID) [alphanumeric string]. |
| UDI Version ID | UDI version (alphanumeric string). |
| UDI Top Assem Num | UDI for top-level assembly. |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| SDHC Flash | Secure Digital High Capacity on-board flash memory (/flash drive). |
| Type | Disk capacity in Mbytes. |
| Model | Generic-UltraFastMedia. |
| USB 1 | Status of front panel USB port, for example. "Not Present". |
| SFP+ Module On Port <number>: | Information on the SFP+ transceiver in the specified port (10 through 29). |
| Transceiver Info | SFP+ transceiver type. |
| Vendor Info | Vendor Name and Vendor IEEE ID. |
| Part Info | Cisco PID and serial number. |
| Management Input/Output version 2 (MIO2) | |
| Daughter Card #<number> | Daughter card number. |
| Card Type | MIO 2x(10Gb&100Gb) Daughter Card 2 |
| Description | MDC |
| Cisco Part Number | Cisco part number. |
| UDI Serial Number | Unique Device Identifier (UDI) serial number [alphanumeric string]. |
| Midplane: | Chassis EPROM information. |

| Field | Description |
|--------------------|---|
| Card Type | Midplane EPROM Card. |
| MAC Addresses | Media Access Controller hexadecimal starting address in format: xx-xx-xx-xx-xx-xx. |
| MEC: | Midplane EEPROM Card. |
| Description | MEC. |
| Cisco Part Number | Cisco part number (nn-nnnnn-nn Ln). |
| UDI Serial Number | Unique Device Identifier (UDI) serial number [alphanumeric string]. |
| UDI Product ID | UDI Product Identifier (PID) [alphanumeric string]. |
| UDI Version ID | UDI version (alphanumeric string). |
| Midplane: | |
| Description | Midplane. |
| Cisco Part Number | Cisco part number (nn-nnnnn-nn Ln). |
| UDI Serial Number | UDI serial number (alphanumeric string). |
| Chassis: | |
| Description | Chassis. |
| Cisco Part Number | Cisco part number (nn-nnnnn-nn Ln). |
| UDI Serial Number | UDI serial number (alphanumeric string). |
| UDI Product ID | Cisco Product Identifier (PID) [alphanumeric string]. |
| UDI Version ID | UDI version (alphanumeric string). |
| UDI Top Assem Num | UDI for top-level assembly. |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| SDHC Flash | Secure Digital High Capacity on-board flash memory (/flash drive). |
| Type | Disk capacity in Mbytes. |

| Field | Description |
|---------------------------------|--|
| Model | Generic-UltraFastMedia. |
| USB 1 | Status of front panel USB port, for example. "Not Present". |
| SFP+ Module On Port <number>: | Information on the SFP+ transceiver in the specified port (10 through 29). |
| Transceiver Info | SFP+ transceiver type. |
| Vendor Info | Vendor Name and Vendor IEEE ID. |
| Part Info | Cisco PID and serial number. |
| BCF2 | Board Control FPGA DPC2 firmware. |
| CAF2 | Control and Availability FPGA DPC2 firmware. |
| DC F | Daughter Card Firmware |
| CPU 0 Type/Memory | Socket 0: <processor type>, <processor speed> Socket 1: <processor type>, <processor speed> |
| CPU 0 DIMM-N0C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N0C1D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N0C2D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 DIMM-N1C0D0 P/N | Dual In-line Memory Module part number. |
| CPU 0 BIOS | Basic Input/Output System. |
| CPU 0 i82599 | Intel 10GbE Controller. |
| CPU 0 i82574 | Intel Gigabit Ethernet Controller. |
| CPU 0 m88se9485 | Marvell Serial Attached SCSI (SAS) I/O Controller |
| CPU 0 CFE Loaded | Common Firmware Environment version. |
| CPU 0 CFE ROM | Multiple CFE versions. |
| CPU 0 DH89XXCC | Intel PCI Express root port. |
| System Status Card (SSC) | |

| Field | Description |
|--------------------------------------|---|
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| BCF | Board Control FPGA firmware. |
| Fabric and Storage Card (FSC) | |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |
| BCF | Board Control FPGA firmware. |

show card hardware (VPC-DI)

In a VPC-DI instance, card numbers correspond to the virtual slot numbers assigned to the virtual machines (VMs) that run StarOS within the virtual chassis created by hypervisor templates.

Table 4: show card hardware Command Output Descriptions (VPC-DI)

| Field | Description |
|--|---|
| Control Function and Service Function Cards | |
| Card <number> | Virtual slot number of the specified card. Slots 1 and 2 = CF; Slots 3 – 48 = SF. |
| Card Type | Control Function Virtual Card or 2-Port Service Function Virtual Card. |
| CPU Packages | Number of vCPUs. |
| CPU nodes | Number of CPU nodes. |
| CPU Cores/Threads | Number of cores/threads. |
| Memory | vMemory in Megabytes |

| Field | Description |
|---------------------------|---|
| Platform | Hypervisor type. |
| CFE/Diags | Common Firmware Environment/Diagnostic firmware. |
| Network Interfaces | |
| cpeth0 | VPC-DI network communication port. |
| Address | MAC address. |
| Device | Device type. |
| ID | VPC-DI identifier (hexadecimal). |
| Driver | Driver type. |
| RxQ(s)/RINGSZ/COALESCE | Receive queue information from hypervisor. |
| TxQ(s)/RINGSZ/COALESCE | Transmit queue information from hypervisor. |
| loeth0 | CF only: LOCAL management port (Console). |
| Address | MAC address. |
| Device | Device type. |
| ID | VPC-DI identifier (hexadecimal). |
| Driver | Driver type. (alphanumeric string) |
| RxQ(s)/RINGSZ/COALESCE | Receive queue information from hypervisor. |
| TxQ(s)/RINGSZ/COALESCE | Transmit queue information from hypervisor. |
| port_slot_port | SF only: Service port. |
| Address | MAC address. |
| Device | Device type. |
| ID | VPC-DI identifier (hexadecimal). |
| Driver | Driver type. (alphanumeric string) |
| RxQ(s)/RINGSZ/COALESCE | Receive queue information from hypervisor. |
| TxQ(s)/RINGSZ/COALESCE | Transmit queue information from hypervisor. |
| Storage Devices | |
| Virtual Flash | Indicates whether or not the virtual /flash drive is Present. |
| Type | Virtual drive type (alphanumeric string). |
| Model | Virtual drive model (alphanumeric string). |

| Field | Description |
|--------------------|---|
| Hard Drive 1 | Indicates whether virtual Hard Drive 1 is Present. |
| Type | Virtual drive type (alphanumeric string). |
| Model | Virtual drive model (alphanumeric string). |
| Hard Drive 2 | Indicates whether virtual Hard Drive 2 is Present. |
| USB 1 | Indicates whether virtual USB port 1 is Present (must be configured via hypervisor). |
| USB 2 | Indicates whether virtual USB port 2 is Present (must be configured via hypervisor). |
| CDROM 1 | Indicates whether virtual a CDROM is Present (must be configured via hypervisor). |
| Type | CDROM drive type (alphanumeric string). |
| Model | CDROM drive model (alphanumeric string). |
| Card Programmables | Indicates if the software on any of the programmable components on the card is not at the current revision. "up to date" – all software is current "out of date" – identifies one or more components do not have the most current software. "experimental/unreleased" – one or more components have experimental or unreleased software. |

show card info (ASR 5000)

Table 5: show card info (ASR 5000) Command Output Descriptions

| Field | Applicable Card(s) | Description |
|-----------|--------------------|---|
| Slot Type | All | Displays the acronym for the card type. |
| Card Type | All | Indicates the type of card installed. |

| Field | Applicable Card(s) | Description |
|----------------------|---|--|
| Operational State | All | <p>Displays the operational state of the card. The possible operational states are:</p> <ul style="list-style-type: none"> • Active: Indicates that the card is an active component that will be used to process subscriber data sessions. • Standby: Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur. • Offline: Indicates that the card is installed but is not ready to process subscriber data sessions. This could be because it is not completely installed (such as, the card interlock switch is not locked}. Refer to the <i>ASR 5000 Installation Guide</i> for additional information. |
| Desired Mode | Processing Cards, SPIOs and line cards only | Displays the configured mode of the card. Through software configuration the card could be placed into either the active or standby mode. |
| Last State Change | All | Displays the time of the last operational state change for the card. |
| Administrative State | All | Indicates whether or not the card has been configured for use via software. If it has been configured, Enabled will be displayed. If not, Disabled will be displayed. |
| Card Lock | All | Displays whether or not the card's interlock switch is Locked or Unlocked. |
| Halt Issued | All | Displays whether or not this card was the target of a halt command issued by an administrator or operator. The halt command stops all tasks and processes running on the card. If the card has been halted, a Yes will be displayed. If not, a No will be displayed. |
| Reboot Pending | All | Displays whether or not the card will be undergoing a reboot. If the card is being rebooted, a Yes will be displayed. If not, a No will be displayed. |

| Field | Applicable Card(s) | Description |
|-------------------------|--------------------|--|
| Upgrade In Progress | SPC/SMC, PSCx | <p>Indicates whether an upgrade is in progress.</p> <p>The following operations are not allowed while a card is upgrading:</p> <ul style="list-style-type: none"> • change card [no] shutdown (config) • change card active (config) • change card redundancy (config) • card halt (exec) • card reboot (exec) • start an online upgrade <p>Level unlock operations are ignored while a card is upgrading.</p> |
| Card Usable | All | <p>Indicates whether or not the card is usable. "Usability" is based on the operational state of the card (active, standby, or offline), whether or not the Administrative state is enabled (the SPC/SMC can communicate with it), and whether or not the card's interlock switch is locked. Either a Yes or a No will be displayed.</p> |
| Single Point of Failure | All | <p>Displays whether or not the component is a single point of failure (SPOF) in the system. If the component is a SPOF, then a Yes will appear in this column. If not, a No will be displayed.</p> |
| Attachments | SPC/SMC, PSCx | <p>Displays the slot number and card type(s) that this card is associated with. For example, if this information is being displayed for a Processing Card, then the line card(s) that the Processing Card is associated with will be displayed.</p> |
| Temperature | All | <p>Indicates the current operating temperature and provides the maximum safe temperature for comparison.</p> |

| Field | Applicable Card(s) | Description |
|-----------|--------------------|--|
| Voltage | All | <p>Indicates whether the power levels that the card is receiving are within acceptable limits.</p> <p>Every card in the system has at least two power inputs. If all of the power inputs are within specification, a Good will be displayed. If even one of these inputs is out of the acceptable range, then a Bad ***ALARM*** will be displayed.</p> |
| Card LEDs | All | <p>Displays the state of the Run/Fail, Active, and Standby light emitting diodes (LEDs) on the front panels of each of the cards. The LEDs will be displayed as either Green, Red, or Off.</p> <ul style="list-style-type: none"> • Run/Fail LED: Green is normal, Red or Off indicate a problem. <p>NOTE: If the Run/Fail LED is either Red or Off, refer to the <i>ASR 5000 System Administration Guide</i> for information on troubleshooting the problem.</p> <ul style="list-style-type: none"> • Active: Green indicates that the card is in active mode. Off indicates that the card is in standby mode. • Standby LED: Green indicates that the card is in standby mode. Off indicates that the card is in active mode. |

| Field | Applicable Card(s) | Description |
|-----------------|--------------------|---|
| System LEDs | SPC/SMC | <p>Displays the state of the Status and Service LEDs on the SPC/SMC. The Status LED will be displayed as either Green, Red, or Off. The Service LED will be displayed as either Amber, or Off.</p> <ul style="list-style-type: none"> • Status LED: Green is normal, Red or Off indicate a problem. <p>NOTE: If the Run/Fail LED is either Red or Off, refer to <i>ASR 5000 System Administration Guide</i> for information on troubleshooting the problem.</p> <ul style="list-style-type: none"> • Service LED: Amber indicates that maintenance is needed. Off indicates that no maintenance is necessary. <p>NOTE: If the Status LED is Amber, refer to <i>ASR 5000 System Administration Guide</i> for information on troubleshooting the problem.</p> |
| CPU 0 through 3 | SMC, PSCx | Displays how the CPUs on the card are being used. |

show card info (ASR 5500)

Table 6: show card info (ASR 5500) Command Output Descriptions

| Field | Applicable Card(s) | Description |
|----------------|--------------------|---|
| Slot Type | All | Displays the acronym for the card type. |
| Card Type | All | Indicates the type of card installed. |
| Daughter Cards | MIO/UMIO/MIO2 | Lists the number of daughter cards installed, for example "DC1, DC2". |

| Field | Applicable Card(s) | Description |
|----------------------|----------------------|--|
| Operational State | All | <p>Displays the operational state of the card. The possible operational states are:</p> <ul style="list-style-type: none"> • Active: Indicates that the card is an active component that will be used to process subscriber data sessions. • Standby: Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur. • Offline: Indicates that the card is installed but is not ready to process subscriber data sessions. This could be because it is not completely installed (such as, the card interlock switch is not locked}. Refer to the <i>ASR 5500 Installation Guide</i> for additional information. |
| Desired Mode | DPC/UDPC, DPC2/UDPC2 | Displays the configured mode of the card. Through software configuration the card could be placed into either the active or standby mode. |
| Last State Change | All | Displays the time of the last operational state change for the card. |
| Administrative State | All | Indicates whether or not the card has been configured for use via software. If it has been configured, Enabled will be displayed. If not, Disabled will be displayed. |
| Card Lock | All | Displays whether or not the card's interlock switch is Locked or Unlocked. |
| Halt Issued | All | Displays whether or not this card was the target of a halt command issued by an administrator or operator. The halt command stops all tasks and processes running on the card. If the card has been halted, a Yes will be displayed. If not, a No will be displayed. |
| Reboot Pending | All | Displays whether or not the card will be undergoing a reboot. If the card is being rebooted, a Yes will be displayed. If not, a No will be displayed. |

| Field | Applicable Card(s) | Description |
|-------------------------|-------------------------------------|--|
| Upgrade In Progress | MIO/UMIO/MIO2, DPC/UPDC, DPC2/UDPC2 | <p>Indicates whether an upgrade is in progress.</p> <p>The following operations are not allowed while a card is upgrading:</p> <ul style="list-style-type: none"> • change card [no] shutdown (config) • change card active (config) • change card redundancy (config) • card halt (exec) • card reboot (exec) • start an online upgrade <p>Level unlock operations are ignored while a card is upgrading.</p> |
| Session Busy-Out | DPC/UDPC, DPC2/UDPC2 | Indicates whether a busy-out command has been initiated. Busy-out moves processes from the source DPC/UDPC to the destination DPC/UDPC, or disables the DPC/UDPC from accepting any new calls. |
| Card Usable | MIO/UMIO/MIO2 | Indicates whether or not the card is usable. "Usability" is based on the operational state of the card (active, standby, or offline), whether or not the Administrative state is enabled MIO/UMIO can communicate with it), and whether or not the card's interlock switch is locked. Either a Yes or a No will be displayed. |
| Single Point of Failure | All | Displays whether or not the component is a single point of failure (SPOF) in the system. If the component is a SPOF, then a Yes will appear in this column. If not, a No will be displayed. |
| Temperature | All | Indicates relative operating temperature. |
| Voltages | All | <p>Indicates whether the power levels that the card is receiving are within acceptable limits.</p> <p>Every card in the system has at least two power inputs. If all of the power inputs are within specification, a Good will be displayed. If even one of these inputs is out of the acceptable range, then a Bad ***ALARM*** will be displayed.</p> |

| Field | Applicable Card(s) | Description |
|-----------|--------------------|---|
| Card LEDs | All | <p>Displays the state of the Run/Fail, Active and Redundancy light emitting diodes (LEDs) on the front panels of each of the cards.</p> <ul style="list-style-type: none"> • Run/Fail LED: Green is normal, Red or Off indicate a problem. • Active: Green indicates that the software is loaded or is being loaded (blinking) on the card. • Redundancy: Green indicates that the card is in standby mode. <p>NOTE: If the Run/Fail LED is either Red or Off, refer to <i>ASR 5500 System Administration Guide</i> for information on troubleshooting the problem.</p> <p>Refer to the <i>ASR 5500 Installation Guide</i> for additional information.</p> |
| Card LEDs | MIO/UMIO/MIO2 | <p>The following LEDs appear on the MIO/UMIO only:</p> <ul style="list-style-type: none"> • Master: Green indicates that the card is in Active mode. • Busy: Green indicates that the card is accessing the RAID solid state drives on the FSCs. |
| Card LEDs | FSC | <p>The following LEDs appear on the FSC only:</p> <ul style="list-style-type: none"> • Drive 1 Activity and Drive 2 Activity: Indicate that the RAID solid state drives are being accessed by the MIO/UMIO. |

| Field | Applicable Card(s) | Description |
|--------------|-------------------------------------|--|
| Card LEDs | SSC | <p>The following LEDs appear on the SSC only:</p> <ul style="list-style-type: none"> • System Status: Red indicates the that there is a loss of service somewhere in the system. For example, the system could not locate a a valid software image at boot-up, or a high temperature condition exists. • System Service: Illuminates amber to indicate that the system has experienced a hardware component failure. |
| CPU 0, CPU 1 | MIO/UMIO/MIO2, DPC/UDPC, DPC2/UDPC2 | Displays whether an Error ID Log or Boot Progress Log is present for the CPU. |

show card info (VPC-SI, VPC-DI)

Table 7: show card info (VPC-SI, VPC-DI) Command Output Descriptions

| Field | Applicable Card(s) | Description |
|-------------------|--------------------|--|
| Slot Type | Virtual | Displays the acronym for the card type. |
| Card Type | Virtual | Indicates the type of card installed. |
| Operational State | Virtual | <p>Displays the operational state of the card. The possible operational states are:</p> <ul style="list-style-type: none"> • Active: Indicates that the card is an active component that will be used to process subscriber data sessions. • Standby: Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur. • Offline: Indicates that the card is installed but is not ready to process subscriber data sessions. This could be because it is not completely installed (such as, the card interlock switch is not locked). |

| Field | Applicable Card(s) | Description |
|---|--------------------|--|
| Redundant With VPC-DI CF only | Virtual | Indicates with which slot this CF maintains 1:1 redundancy. |
| Last State Change | Virtual | Displays the time of the last operational state change for the card. |
| Administrative State | Virtual | Indicates whether or not the card has been configured for use via software. If it has been configured, Enabled will be displayed. If not, Disabled will be displayed. |
| Card Lock | Virtual | Displays whether or not the card's interlock switch is Locked or Unlocked. |
| Reboot Pending | Virtual | Displays whether or not the card will be undergoing a reboot. If the card is being rebooted, a Yes will be displayed. If not, a No will be displayed. |
| Upgrade In Progress | Virtual | Indicates whether an upgrade is in progress. The following operations are not allowed while a card is upgrading: <ul style="list-style-type: none"> • change card [no] shutdown (config) • change card active (config) • change card redundancy (config) • card halt (exec) • card reboot (exec) • start an online upgrade Level unlock operations are ignored while a card is upgrading. |
| Session Busy-Out Not supported for VPC-DI, CF | Virtual | Indicates whether a busy-out command has been initiated (Enabled or Disabled). |
| Card Usable | Virtual | Indicates whether or not the card is usable. "Usability" is based on the operational state of the card (active, standby, or offline), whether or not the Administrative state is enabled, and whether or not the card's interlock switch is locked. Either a Yes or a No will be displayed. |
| Single Point of Failure | Virtual | Displays whether or not the component is a single point of failure (SPOF) in the system. Not applicable for virtual cards. |

| Field | Applicable Card(s) | Description |
|-----------|--------------------|---|
| Card LEDs | Virtual | Not displayed for virtual cards. |
| CPU 0 | Virtual | Displays how the CPU on the card is being used. |

show card mappings (ASR 5000)

Table 8: show card mappings Command Output Descriptions (ASR 5000)

| Field | Description |
|--------------------------|--|
| Slot (left-most column) | Displays the chassis slot number and the type of line card installed. |
| Mapping | <p>Displays the mapping or communication path from the line card to the application card. The possible mappings are:</p> <ul style="list-style-type: none"> • Direct: The line card is operating in conjunction with the application card installed directly in front of it. • Cross: The SPIO installed in slot 24 is operating in conjunction with the SMC installed in slot 9 or the SPIO in slot 25 is operating in conjunction with the SMC in slot 8. <p>NOTE: Cross mappings only occur if the SPC/SMC that the SPIO was formerly operating behind became disabled (either automatically due to an error, or through manual configuration).</p> <ul style="list-style-type: none"> • RCC 40: A line card (non-SPIO) installed in chassis slots 17 through 23 or 26 through 32 is operating in conjunction with a Processing Card installed in a slot that is not directly in front via the RCC in slot 40. • RCC 41: A line card (non-SPIO) installed in chassis slots 33 through 39 or 42 through 48 is operating in conjunction with a Processing Card installed in a slot that is not directly in front via the RCC in slot 41. <p>NOTE: RCC 40 and RCC 41 mappings will only occur if the Processing Card that the line card was formerly operating behind became disabled (either automatically due to an error, or through manual configuration).</p> |
| Slot (right-most column) | Displays the chassis slot number and the type of application card installed. |

show card table

Table 9: show card table Command Output Descriptions

| Field | Description |
|--------------------------------|--|
| Slot | Displays the chassis slot number and card type acronym. |
| Card Type | Displays the type of card installed. |
| Oper State | <p>Displays the operational state of the card. The possible operational states are:</p> <ul style="list-style-type: none"> • Active: Indicates that the card is an active component that will be used to process subscriber data sessions. • Standby: Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur. • Offline: Indicates that the card is installed but is not ready to process subscriber data sessions. This could be due to the fact that it is not completely installed (such as, the card interlock switch is not locked). Refer to the <i>Installation Guide</i> for additional information. |
| SPOF | Displays whether or not the component is a single point of failure (SPOF) in the system. If the component is a SPOF, then a Yes will appear in this column. If not, a No will be displayed. |
| Attach ASR 5000 only | <p>This column is valid only for the ASR 5000 platform. It displays the line card that the Processing Cards and SMCs are using for network access.</p> <p>This column will only be populated for the RCCs in the event that tasks and processes were migrated from an active Processing Card to a standby Processing Card. The RCC creates a path from the standby Processing Card to the line cards.</p> |

