

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	Displays boot counter information for the card. The following counters are reported: • **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. Each of the above counters provide a timestamp indicating the most recent occurrence. **NOTE:** Counters are not displayed for line card diagnostics.
Status	Status is reported for the following items: • **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. **Note: This field only appears if a card reset has occurred.**
Boot/Diag Log **ASR 5000 only**	Displays the contents of the boot and diagnostics log. **NOTE:** The boot and diagnostic log contents are not displayed for line card diagnostics.

Field	Description
Error Log **ASR 5000 only**	Displays the contents of the error log. **NOTE:** The error log contents are not displayed for line card diagnostics.
Current Environment **Not displayed for VPC**	Displays the results for the following measurements: • **Temperature measurements:** Indicates the current operating temperatures and provides the maximum safe temperature for comparison. • **Voltage measurements: I**ndicates 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, PSC*x*, 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.

Field	Description
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".
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).

Field	Description
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.
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.

Field	Description
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.
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_CRYPTO_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.

Field	Description
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.
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.

Field	Description
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 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.

Field	Description
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.
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_CRYPTO_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.

Field	Description
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.
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].

Field	Description
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:	
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	Daighter 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)	
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.

Field	Description
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
Platform	Hypervisor type.
CFE/Diags	Common Firmware Environment/Diagnostic firmware.
Network Interfaces	
cpeth0	VPC-DI network communication port.
Address	MAC address.
Device	Device type.

Field	Description
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).
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).

Field	Description
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.
Operational State	All	Displays the operational state of the card. The possible operational states are: • **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 *ASR 5000 Installation Guide* 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.

Field	Applicable Card(s)	Description
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.
Upgrade In Progress	SPC/SMC, PSCx	Indicates whether an upgrade is in progress. The following operations are not allowed while a card is upgrading: • 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.
Card Usable	All	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.
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.
Attachments	SPC/SMC, PSCx	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.
Temperature	All	Indicates the current operating temperature and provides the maximum safe temperature for comparison.
Voltages	All	Indicates whether the power levels that the card is receiving are within acceptable limits. 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.

Field	Applicable Card(s)	Description
Card LEDs	All	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. • **Run/Fail LED:** Green is normal, Red or Off indicate a problem. **NOTE:** If the Run/Fail LED is either Red or Off, refer to the *ASR 5000 System Administration Guide* for information on troubleshooting the problem. • **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.
System LEDs	SPC/SMC	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. • **Status LED:** Green is normal, Red or Off indicate a problem. **NOTE:** If the Run/Fail LED is either Red or Off, refer to *ASR 5000 System Administration Guide* for information on troubleshooting the problem. • **Service LED:** Amber indicates that maintenance is needed. Off indicates that no maintenance is necessary. **NOTE:** If the Status LED is Amber, refer to *ASR 5000 System Administration Guide* for information on troubleshooting the problem.
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	Displays the operational state of the card. The possible operational states are: • **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 *ASR 5500 Installation Guide* 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.
Upgrade In Progress	MIO/UMIO/MIO2, DPC/UPDC, DPC2/UDPC2	Indicates whether an upgrade is in progress. The following operations are not allowed while a card is upgrading: • 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	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.

Field	Applicable Card(s)	Description
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	Indicates whether the power levels that the card is receiving are within acceptable limits. 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.
Card LEDs	All	Displays the state of the Run/Fail, Active and Redundancy light emitting diodes (LEDs) on the front panels of each of the cards. • **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. **NOTE:** If the Run/Fail LED is either Red or Off, refer to *ASR 5500 System Administration Guide* for information on troubleshooting the problem. Refer to the *ASR 5500 Installation Guide* for additional information.
Card LEDs	MIO/UMIO/MIO2	The following LEDs appear on the MIO/UMIO only: • **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	The following LEDs appear on the FSC only: • **Drive 1 Activity** and **Drive 2 Activity:** Indicate that the RAID solid state drives are being accessed by the MIO/UMIO.
Card LEDs	SSC	The following LEDs appear on the SSC only: • **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.

Field	Applicable Card(s)	Description
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	Displays the operational state of the card. The possible operational states are: • **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}.
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.

Field	Applicable Card(s)	Description
Upgrade In Progress	Virtual	Indicates whether an upgrade is in progress. The following operations are not allowed while a card is upgrading: • 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.
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.

Field	Description
Mapping	Displays the mapping or communication path from the line card to the application card. The possible mapping s are: • **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. **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). • **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. **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).
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	Displays the operational state of the card. The possible operational states are: • **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 *Installation Guide* for additional information.

Field	Description
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**	This column if valid only for the ASR 5000 platform. It displays the line card that the Processing Cards and SMCs are using for network access. 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.