

Cisco SFP and Port Commands

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I purchased some SFPs to go in to a Cisco 10GB switch, and found they did not work in my switch. While investigating the fault, I found some useful commands to help me.

These commands seem to work on both Cisco IOS and the Nexus switches, albeit with some slightly different syntax.

Show Inventory

Show Inventory - [sh inventory](#) displays information about the switch hardware options:

```
NAME: "Chassis", DESCR: "Nexus 3548 Chassis"
PID: N3K-C3548P-10G      , VID: V02 , SN: FOC1822R0WS

NAME: "Module 1", DESCR: "48x10GE Supervisor"
PID: N3K-C3548P-10G      , VID: V02 , SN: FOC18220S2A

NAME: "Fan 1", DESCR: "Chassis fan module"
PID: NXA-FAN-30CFM-F     , VID: N/A , SN: N/A

NAME: "Fan 2", DESCR: "Chassis fan module"
PID: NXA-FAN-30CFM-F     , VID: N/A , SN: N/A

NAME: "Fan 3", DESCR: "Chassis fan module"
PID: NXA-FAN-30CFM-F     , VID: N/A , SN: N/A

NAME: "Fan 4", DESCR: "Chassis fan module"
PID: NXA-FAN-30CFM-F     , VID: N/A , SN: N/A

NAME: "Power supply 1", DESCR: "AC power supply"
PID: N2200-PAC-400W      , VID: V04 , SN: DTN1817P5GC

NAME: "Power supply 2", DESCR: "AC power supply"
PID: N2200-PAC-400W      , VID: V04 , SN: DTN1817P5Q1
```

Show Interface

Show Interface displays detailed information about each interface. If you only issue the command [sh interface](#) (Nexus) (or [sh interfaces for IOS](#)) then you get information regarding all interfaces.

You can get information on a specific interface by using the Cisco syntax [sh interface ethernet 1/1](#). In this example we get the information for port 1. Depending on your switch you might have to use [ethernet](#) or [GigabitEthernet](#) etc.

```
Ethernet1/1 is up
Dedicated Interface
Hardware: 100/1000/10000/40000 Ethernet, address: 88f0.31ca.b0c8 (bia 88f0.31c
a.b0c8)
MTU 1500 bytes, BW 100000000 Kbit, DLY 10 usec
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA
Port mode is access
full-duplex, 10 Gb/s, media type is 10G
Beacon is turned off
Input flow-control is off, output flow-control is off
Rate mode is dedicated
Switchport monitor is off
EtherType is 0x8100
Last link flapped 00:14:47
Last clearing of "show interface" counters never
```

```
5 interface resets
30 seconds input rate 24 bits/sec, 0 packets/sec
30 seconds output rate 296 bits/sec, 0 packets/sec
Load-Interval #2: 5 minute (300 seconds)
  input rate 192 bps, 0 pps; output rate 360 bps, 0 pps
RX
  0 unicast packets  115 multicast packets  34 broadcast packets
  149 input packets  22045 bytes
  0 jumbo packets  0 storm suppression bytes
  0 runts  0 giants  0 CRC  0 no buffer
  0 input error  0 short frame  0 overrun  0 underrun  0 ignored
  0 watchdog  0 bad etype drop  0 bad proto drop  0 if down drop
  0 input with dribble  0 input discard
  0 Rx pause
TX
  520 unicast packets  0 multicast packets  0 broadcast packets
  520 output packets  49544 bytes
  0 jumbo packets
  0 output errors  0 collision  0 deferred  0 late collision
  0 lost carrier  0 no carrier  0 babble  0 output discard
  0 Tx pause
```

Show Interface Status

Show Interface Status will display a summary of interfaces and their status. Use either [sh interface status](#) to show all interfaces, or [sh interface ethernet 1/1 status](#) to show specific interface.

```
sh int status
```

Port	Name	Status	Vlan	Duplex	Speed	Type
Gil/0/1		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/2		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/3		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/4		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/5		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/6		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/7		connected	10	a-full	a-1000	10/100/1000BaseTX
Gil/0/8		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/9		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/10		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/11		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/12		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/13		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/14		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/15		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/16		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/17		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/18		notconnect	10	auto	auto	10/100/1000BaseTX
Gil/0/19		connected	20	a-full	a-1000	10/100/1000BaseTX
Gil/0/20		connected	20	a-full	a-1000	10/100/1000BaseTX
Gil/0/21		connected	20	a-full	a-1000	10/100/1000BaseTX
Gil/0/22		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/23		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/24		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/25		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/26		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/27		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/28		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/29		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/30		notconnect	20	auto	auto	10/100/1000BaseTX
Gil/0/31		notconnect	30	auto	auto	10/100/1000BaseTX
Gil/0/32		connected	30	a-full	a-1000	10/100/1000BaseTX
Gil/0/33		connected	30	a-full	a-1000	10/100/1000BaseTX
Gil/0/34		connected	30	a-full	a-1000	10/100/1000BaseTX
Gil/0/35		connected	30	a-full	a-1000	10/100/1000BaseTX
Gil/0/36		connected	30	a-full	a-1000	10/100/1000BaseTX
Gil/0/37		notconnect	30	auto	auto	10/100/1000BaseTX

Gil/0/38	notconnect	30	auto	auto	10/100/1000BaseTX
Gil/0/39	notconnect	30	auto	auto	10/100/1000BaseTX
Gil/0/40	notconnect	30	auto	auto	10/100/1000BaseTX
Gil/0/41	notconnect	40	auto	auto	10/100/1000BaseTX
Gil/0/42	connected	40	a-full	a-1000	10/100/1000BaseTX
Gil/0/43	connected	40	a-full	a-1000	10/100/1000BaseTX
Gil/0/44	connected	40	a-full	a-1000	10/100/1000BaseTX
Gil/0/45	notconnect	40	auto	auto	10/100/1000BaseTX
Gil/0/46	notconnect	40	auto	auto	10/100/1000BaseTX
Gil/0/47	notconnect	40	auto	auto	10/100/1000BaseTX
Gil/0/48	notconnect	40	auto	auto	10/100/1000BaseTX

Show Interface Transceiver Details

Show Interface Transceiver Details gives more specific information about the interface in a port. This is useful for SFPs, not so useful for fixed ethernet interfaces. Use: [sh interface transceiver details](#) .

```
Ethernet1/1
  transceiver is present
  type is Unknown Type-(unknown)
  name is Amphenol
  part number is 603830001
  revision is N
  serial number is APF13350017WFF
  nominal bitrate is 10300 MBit/sec
  Link length supported for copper is 1 m
  cisco id is --
  cisco extended id number is 4

DOM is not supported
```

Show Version

Show Version gives information regarding the hardware, software and BIOS version of the switch. Use: [sh version](#)

```
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Documents: http://www.cisco.com/en/US/products/ps9372/tsd_products_support_series_home.html
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http://www.gnu.org/licenses/gpl.html.
```

Software

```
BIOS:      version 1.9.0
loader:    version N/A
kickstart: version 6.0(2)A1(1d)
system:    version 6.0(2)A1(1d)
Power Sequencer Firmware:
  Module 1: version v3.1
BIOS compile time:    10/13/2012
kickstart image file is: bootflash:///n3500-uk9-kickstart.6.0.2.A1.1d.bin
kickstart compile time: 1/30/2014 9:00:00 [01/30/2014 18:31:05]
system image file is:   bootflash:///n3500-uk9.6.0.2.A1.1d.bin
system compile time:    1/30/2014 9:00:00 [01/30/2014 19:39:25]
```

Hardware

```
cisco Nexus 3548 Chassis ("48x10GE Supervisor")
Intel(R) Pentium(R) CPU @ 1.50GHz
with 4117860 kB of memory.
Processor Board ID F0C18220S2A
```

Device name: switch
bootflash: 2007040 kB

Kernel uptime is 0 day(s), 4 hour(s), 23 minute(s), 57 second(s)

Last reset

Reason: Unknown
System version: 6.0(2)A1(1d)
Service:

plugin

Core Plugin, Ethernet Plugin

sh mac address-table interface x

Shows the mac table for a particular interface.

```
sh mac address-table interface gigabitEthernet 1/0/1
```

Mac Address Table			
Vlan	Mac Address	Type	Ports
10	001d.aa16.a730	DYNAMIC	Gi1/0/1
10	001d.aa1c.7b7c	DYNAMIC	Gi1/0/1
10	00e0.f42c.0bce	DYNAMIC	Gi1/0/1
10	1059.3202.e4c5	DYNAMIC	Gi1/0/1
10	1059.3202.e5ae	DYNAMIC	Gi1/0/1
10	30ab.6a3a.11b6	DYNAMIC	Gi1/0/1
10	3822.e2b6.3385	DYNAMIC	Gi1/0/1
10	3ca8.2a07.a6dc	DYNAMIC	Gi1/0/1
10	3cd9.2b54.cd94	DYNAMIC	Gi1/0/1
10	4016.7ea4.6f21	DYNAMIC	Gi1/0/1
10	408d.5c1e.76bb	DYNAMIC	Gi1/0/1
10	7054.d2c5.08a5	DYNAMIC	Gi1/0/1
10	7085.c2b4.51ad	DYNAMIC	Gi1/0/1
10	7898.e8f9.7ed0	DYNAMIC	Gi1/0/1
10	b8a3.866a.4ad0	DYNAMIC	Gi1/0/1
10	b8ac.6f2c.cf44	DYNAMIC	Gi1/0/1
10	dca6.32e0.7e97	DYNAMIC	Gi1/0/1
10	e89d.8709.d630	DYNAMIC	Gi1/0/1
10	ecb1.d74a.441d	DYNAMIC	Gi1/0/1

Total Mac Addresses for this criterion: 19

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