



# Show Commands

---

This chapter describes the Cisco NX-OS Layer 3 interfaces **show** commands.

# show interface brief

To display a brief summary of the interface configuration information, use the **show interface brief** command.

## show interface brief

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

**Examples** This example shows how to display the summary configuration information of the specified interface:

```
switch# show interface brief
```

```
-----
Ethernet      VLAN   Type Mode   Status Reason          Speed   Port
Interface                                           Ch #
-----
Eth1/1        1      eth trunk up      none           10G(D) 4000
Eth1/2        1      eth trunk up      none           10G(D) 4000
Eth1/3        1      eth trunk up      none           10G(D) 4000
Eth1/4        1      eth trunk up      none           10G(D) 4000
Eth1/5        1      eth access down   SFP not inserted 10G(D) --
Eth1/6        1      eth access down   SFP not inserted 10G(D) --
Eth1/7        1      eth trunk up      none           10G(D) 10
Eth1/8        1      eth trunk up      none           10G(D) 10
Eth1/9        1      eth trunk up      none           10G(D) 10
Eth1/10       1      eth trunk up      none           10G(D) 10
Eth1/11       1      eth access down   SFP not inserted 10G(D) --
Eth1/12       1      eth access down   SFP not inserted 10G(D) --
Eth1/13       1      eth access down   SFP not inserted 10G(D) --
Eth1/14       1      eth access down   SFP not inserted 10G(D) --
Eth1/15       1      eth access down   SFP not inserted 10G(D) --
Eth1/16       1      eth access down   SFP not inserted 10G(D) --
Eth1/17       1      eth access down   SFP not inserted 10G(D) --
Eth1/18       1      eth access down   SFP not inserted 10G(D) --
Eth1/19       1      eth access down   SFP not inserted 10G(D) --
Eth1/20       1      eth access down   SFP not inserted 10G(D) --
Eth1/21       1      eth access down   SFP not inserted 10G(D) --
Eth1/22       1      eth access down   SFP not inserted 10G(D) --
Eth1/23       1      eth access down   Link not connected 10G(D) --
Eth1/24       1      eth access down   Link not connected 10G(D) --
Eth1/25       1      eth access down   SFP not inserted 10G(D) --
Eth1/26       1      eth access down   SFP not inserted 10G(D) --
Eth1/27       1      eth access down   SFP not inserted 10G(D) --
```

```

Eth1/28      1      eth  access down    SFP not inserted      10G(D) --
Eth1/29      1      eth  access down    SFP not inserted      10G(D) --
Eth1/30      1      eth  access down    SFP not inserted      10G(D) --
Eth1/31      1      eth  access down    SFP not inserted      10G(D) --
Eth1/32      1      eth  access down    SFP not inserted      10G(D) --
Eth1/33      1      eth  access down    SFP not inserted      10G(D) --
Eth1/34      1      eth  access down    SFP not inserted      10G(D) --
Eth1/35      1      eth  access down    SFP not inserted      10G(D) --
Eth1/36      1      eth  access down    SFP not inserted      10G(D) --
Eth1/37      1      eth  access down    SFP not inserted      10G(D) --
Eth1/38      1      eth  access down    SFP not inserted      10G(D) --
Eth1/39      1      eth  access down    SFP not inserted      10G(D) --
Eth1/40      1      eth  trunk  up       none                   10G(D) --
Eth2/1      1      eth  access down    SFP not inserted      10G(D) --
Eth2/2      1      eth  access up      none                   10G(D) --
Eth2/3      1      eth  access down    SFP not inserted      10G(D) --
Eth2/4      1      eth  access up      none                   10G(D) --
Eth2/5      1      eth  access up      none                   10G(D) --
Eth2/6      1      eth  access down    SFP not inserted      10G(D) --

-----
Port-channel VLAN  Type Mode   Status Reason                               Speed Protocol
Interface
-----
Po10          1      eth  trunk  up      none                               a-10G(D) lacp
Po4000       1      eth  trunk  up      none                               a-10G(D) lacp

-----
Port   VRF           Status IP Address                               Speed  MTU
-----
mgmt0  --           up     192.168.10.37                             100   1500

-----
Interface Secondary VLAN(Type)                               Status Reason
-----
Vlan1    --                               down  Administratively down

switch#

```

This example shows how to display the summary configuration information of interfaces, including routed interfaces:

```
switch# show interface brief
```

```

-----
Ethernet      VLAN  Type Mode   Status Reason                               Speed  Port
Interface                                           Ch #
-----
Eth1/1        1      eth  access down    Link not connected      10G(D) --
Eth1/2        1      eth  trunk  up      none                   10G(D) --
Eth1/3        1      eth  access down    SFP not inserted      10G(D) --
Eth1/4        1      eth  access down    SFP not inserted      10G(D) --
Eth1/5        --      eth  routed up      none                   10G(D) --
Eth1/5.2      --      eth  routed down    Configuration Incomplete 10G(D) --
Eth1/6        1      eth  access up      none                   10G(D) --
Eth1/7        1      eth  access up      none                   10G(D) --
Eth1/8        1      eth  trunk  up      none                   10G(D) 100
Eth1/9        1      eth  access up      none                   10G(D) --
Eth1/10       1      eth  access down    Link not connected      10G(D) --
Eth1/11       1      eth  access down    SFP not inserted      10G(D) --
Eth1/12       1      eth  access down    SFP not inserted      10G(D) --
Eth1/13       1      eth  access down    SFP not inserted      10G(D) --
Eth1/14       1      eth  access down    SFP not inserted      10G(D) --
Eth1/15       1      eth  access down    SFP not inserted      10G(D) --

```

## show interface brief

```

Eth1/16      1      eth access down   SFP not inserted      10G(D) --
Eth1/17      1      eth access up     none                   10G(D) --
Eth1/18      1      eth access up     none                   10G(D) --
Eth1/19      1      eth fabric up     none                   10G(D) --
Eth1/20      1      eth access down   Link not connected    10G(D) --
Eth1/21      1      eth access up     none                   10G(D) --
Eth1/22      1      eth access down   Link not connected    10G(D) --
Eth1/23      1      eth access down   SFP not inserted      10G(D) --
Eth1/24      1      eth access down   SFP not inserted      10G(D) --
Eth1/25      1      eth access down   Link not connected    10G(D) --
Eth1/26      1      eth access down   SFP not inserted      10G(D) --
Eth1/27      1      eth access down   SFP not inserted      10G(D) --
Eth1/28      1      eth access down   SFP not inserted      10G(D) --
Eth1/29      1      eth access down   Link not connected    10G(D) --
Eth1/30      1      eth access down   SFP not inserted      10G(D) --
Eth1/31      1      eth access down   SFP not inserted      10G(D) --
Eth1/32      1      eth access up     none                   10G(D) --

-----
Port-channel VLAN  Type Mode   Status Reason                               Speed Protocol
Interface
-----
Po100          1      eth trunk up     none                               a-10G(D) none

-----
Port   VRF      Status IP Address                               Speed  MTU
-----
mgmt0  --      up     172.29.231.33                            1000  1500

-----
Interface Secondary VLAN(Type)                               Status Reason
-----
Vlan1      --      up     --
Vlan100    --      up     --

-----
Ethernet      VLAN  Type Mode   Status Reason                               Speed  Port
Interface
-----
Eth100/1/1    1      eth access up     none                               10G(D) --
Eth100/1/2    1      eth access down   Link not connected                auto(D) --
Eth100/1/3    1      eth access up     none                               10G(D) --
Eth100/1/4    1      eth access down   Link not connected                auto(D) --
Eth100/1/5    1      eth access down   Link not connected                auto(D) --
Eth100/1/6    1      eth access down   Link not connected                auto(D) --
Eth100/1/7    1      eth access down   Link not connected                auto(D) --
Eth100/1/8    1      eth access down   Link not connected                auto(D) --
Eth100/1/9    1      eth access down   Link not connected                auto(D) --
Eth100/1/10   1      eth access up     none                               10G(D) --
Eth100/1/11   1      eth access down   Link not connected                auto(D) --
Eth100/1/12   1      eth access down   Link not connected                auto(D) --
Eth100/1/13   1      eth access down   Link not connected                auto(D) --
Eth100/1/14   1      eth access down   Link not connected                auto(D) --
Eth100/1/15   1      eth access up     none                               10G(D) --
Eth100/1/16   1      eth access down   Link not connected                auto(D) --

-----
Interface      Status      Description
-----
Lo10           up         --
switch#

```

Note the following in the above display:

- Ethernet 1/5 is a Layer 3-ready interface. The following fields in the display help identify an interface as a configured Layer 3 interface:
  - Mode—routed
  - Status—up
  - Reason—none
- Ethernet 1/5.2 is a Layer 3 subinterface; however, the interface is not ready for Layer 3 configuration (Status—down).
- Interface Lo10 is a Layer 3 loopback interface.

This example shows how to display a brief summary of interfaces configured as FabricPath interfaces on a switch that runs Cisco Nexus 6000 Release 6.0(2)N1(1):

```
switch# show interface brief
-----
Ethernet      VLAN   Type Mode   Status Reason                               Speed   Port
Interface                                           Reason                               Speed   Ch#
-----
Eth1/1        1      eth  access down  SFP not inserted                    1000(D) --
Eth1/2        --      eth  routed down  SFP not inserted                    1000(D) --
Eth1/3        1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/4        1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/5        1      eth  f-path down  SFP not inserted                    10G(D)  --
Eth1/6        1      eth  access down  Link not connected                  10G(D)  --
Eth1/7        1      eth  fabric down  Link not connected                  10G(D)  --
Eth1/8        1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/9        1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/10       1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/11       1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/12       1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/13       1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/14       1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/15       1      eth  pvlan up    none                                 1000(D) --
Eth1/16       1      eth  access down  SFP not inserted                    10G(D)  --
Eth1/17       1      eth  access down  SFP not inserted                    10G(D)  --
switch#
```

In the above display, Ethernet 1/5 has the mode shown as “f-path” indicating that it has been configured as a FabricPath port.

#### Related Commands

Command	Description
<code>interface ethernet</code>	Configures an Ethernet IEEE 802.3 interface.

# show interface ethernet

To display information about the interface configuration, use the **show interface ethernet** command.

```
show interface ethernet slot/port[.subintf-port-no] [brief | counters | description | status | switchport]
```

Syntax Description		
<i>slot/port</i>		Ethernet interface slot number and port number. The <i>slot</i> number is from 1 to 255, and the <i>port</i> number is from 1 to 128.
.		(Optional) Specifies the subinterface separator. <b>Note</b> This keyword applies to Layer 3 interfaces.
<i>subintf-port-no</i>		(Optional) Port number for the subinterface. The range is from 1 to 48. <b>Note</b> This argument applies to Layer 3 interfaces.
<b>brief</b>		(Optional) Displays brief information about the interfaces.
<b>counters</b>		(Optional) Displays information about the counters configured on an interface.
<b>description</b>		(Optional) Displays the description of an interface configuration.
<b>status</b>		(Optional) Displays the operational state of the interface.
<b>switchport</b>		(Optional) Displays the switchport information of an interface.

**Command Default** Displays all information for the interface.

**Command Modes** EXEC mode

Command History	Release	Modification
	6.0(2)N1(1)	

**Examples** This example shows how to display the detailed configuration of the specified interface:

```
switch# show interface ethernet 1/1
Ethernet1/1 is up
  Hardware: 1000/10000 Ethernet, address: 000d.ece7.df48 (bia 000d.ece7.df48)
  MTU 1500 bytes, BW 10000000 Kbit, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA
  Port mode is fex-fabric
  full-duplex, 10 Gb/s, media type is 1/10g
  Beacon is turned off
  Input flow-control is off, output flow-control is off
  Rate mode is dedicated
  Switchport monitor is off
  Last link flapped 09:03:57
  Last clearing of "show interface" counters never
  30 seconds input rate 2376 bits/sec, 0 packets/sec
  30 seconds output rate 1584 bits/sec, 0 packets/sec
```

```

Load-Interval #2: 5 minute (300 seconds)
  input rate 1.58 Kbps, 0 pps; output rate 792 bps, 0 pps
RX
  0 unicast packets 10440 multicast packets 0 broadcast packets
  10440 input packets 11108120 bytes
  0 jumbo packets 0 storm suppression packets
  0 runs 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
  0 unicast packets 20241 multicast packets 105 broadcast packets
  20346 output packets 7633280 bytes
  0 jumbo packets
  0 output errors 0 collision 0 deferred 0 late collision
  0 lost carrier 0 no carrier 0 babble
  0 Tx pause
1 interface resets

```

switch#

This example shows how to display the counters configured on a specified interface:

```
switch# show interface ethernet 1/1 counters
```

```

-----
Port                InOctets      InUcastPkts   InMcastPkts   InBcastPkts
-----
Eth1/1              17193136      0              16159          0
-----
Port                OutOctets      OutUcastPkts   OutMcastPkts   OutBcastPkts
-----
Eth1/1              11576758      0              28326          106
switch#

```

This example shows how to display the detailed configuration information of a specified subinterface:

```

switch# show interface ethernet 1/5.2
Ethernet1/5.2 is up
  Hardware: 1000/10000 Ethernet, address: 0005.73a6.1dbc (bia 0005.73a6.1d6c)
  Description: Eth 1/5.2 subinterfaces
  Internet Address is 192.0.0.3/24
  MTU 1500 bytes, BW 1500 Kbit, DLY 2000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 100
  EtherType is 0x8100

```

switch#

This example shows how to display the brief configuration information of a specified subinterface:

```
switch# show interface ethernet 1/5.2 brief
```

```

-----
Ethernet  VLAN  Type Mode  Status Reason          Speed  Port
Interface                                     Ch #
-----
Eth1/5.2   100   eth  routed up    none          10G(D) --
switch#

```

This example shows how to display the purpose of a specified subinterface:

```
switch# show interface ethernet 1/5.2 description
```

## ■ show interface ethernet

```

-----
Port          Type    Speed  Description
-----
Eth1/5.2     eth     10G    Eth 1/5.2 subinterfaces
switch#

```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>interface ethernet</b>	Configures an Ethernet IEEE 802.3 interface.
<b>interface ethernet (Layer 3)</b>	Configures a Layer 3 Ethernet IEEE 802.3 interface.
<b>switchport mode vntag</b>	Configures an Ethernet interface as a VNTag port.
<b>switchport monitor rate-limit</b>	Configures the rate limit for traffic on an interface.



# show interface loopback

To display information about the loopback interface, use the **show interface loopback** command.

**show interface loopback** *lo-number* [**brief** | **description**]

Syntax Description	
<i>lo-number</i>	Loopback interface number. The range is from 0 to 1023.
<b>brief</b>	(Optional) Displays a brief summary of the loopback interface information.
<b>description</b>	(Optional) Displays the description provided for the loopback interface.

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

## Examples

This example shows how to display the configuration information for a specific loopback interface:

```
switch# show interface loopback 10
loopback10 is up
  Hardware: Loopback
  MTU 1500 bytes, BW 8000000 Kbit, DLY 5000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation LOOPBACK
    0 packets input 0 bytes
    0 multicast frames 0 compressed
    0 input errors 0 frame 0 overrun 0 fifo
    0 packets output 0 bytes 0 underruns
    0 output errors 0 collisions 0 fifo

switch#
```

[Table 1](#) describes the significant fields shown in the display.

**Table 1** *show interface loopback* Field Description

Field	Description
Loopback is ...	Whether the interface hardware is currently active (whether carrier detect is present), is currently inactive (down), or has been taken down by an administrator (administratively down).
Hardware	Hardware is Loopback.
MTU	Maximum transmission unit (MTU) of the interface.
BW	Bandwidth (BW) of the interface in kilobits per second.
DLY	Delay (DLY) of the interface in microseconds.

**Table 1** *show interface loopback Field Description (continued)*

Field	Description
reliability	Reliability of the interface as a fraction of 255 (255/255 is 100 percent reliability), calculated as an exponential average over 5 minutes.
txload	Load on the interface for transmitting packets as a fraction of 255 (255/255 is completely saturated), calculated as an exponential average over 5 minutes.
rxload	Load on the interface for receiving packets as a fraction of 255 (255/255 is completely saturated), calculated as an exponential average over 5 minutes.
Encapsulation	Encapsulation method assigned to an interface.
LOOPBACK	Whether loopback is set.
packets input	Total number of error-free packets received by the system.
bytes	Total number of bytes, including data and MAC encapsulation, in the error-free packets received by the system.
multicast frames	Total number of multicast frames enabled on the interface.
compressed	Total number of multicast frames compressed on the interface.
input errors	Sum of all errors that prevented the receipt of datagrams on the interface being examined. This number might not balance with the sum of the enumerated output errors, because some datagrams might have more than one error and others might have errors that do not fall into any of the specifically tabulated categories.
frame	Number of packets received incorrectly that have a CRC error and a noninteger number of octets. On a serial line, the problem usually the result of noise or other transmission problems.
overrun	Number of times the serial receiver hardware was unable to hand received data to a hardware buffer because the input rate exceeded the receiver's ability to handle the data.
fifo	Number of First In, First Out (FIFO) errors in the receive direction.
packets output	Total number of messages transmitted by the system.
bytes	Total number of bytes, including data and MAC encapsulation, transmitted by the system.
underruns	Number of times that the far-end transmitter has been running faster than the near-end router's receiver can handle. This condition might never happen (be reported) on some interfaces.
output errors	Sum of all errors that prevented the final transmission of datagrams out of the interface being examined. Note that this might not balance with the sum of the enumerated output errors, because some datagrams might have more than one error, and others might have errors that do not fall into any of the specifically tabulated categories.
collisions	Loopback interface does not have collisions.
fifo	Number of First In, First Out (FIFO) errors in the transmit direction.

This example shows how to display the brief information for a specific loopback interface:

```
switch# show interface loopback 10 brief
```

```
-----  
Interface      Status      Description  
-----  
loopback10    up          --  
switch#
```

---

**Related Commands**

Command	Description
<b>interface loopback</b>	Configures a loopback interface.

# show interface port-channel

To display the information about an EtherChannel interface configuration, use the **show interface port-channel** command.

```
show interface port-channel number[.subinterface-number] [brief | counters | description | status]
```

Syntax Description	
<i>number</i>	EtherChannel number. The range is from 1 to 4096.
<i>.subinterface-number</i>	(Optional) Port-channel subinterface configuration. Use the EtherChannel number followed by a dot (.) indicator and the subinterface number. The format is as follows:  <i>portchannel-number.subinterface-number</i>
<b>brief</b>	(Optional) Displays information about the interface.
<b>counters</b>	(Optional) Displays information about the counters configured on the EtherChannel interface.
<b>description</b>	(Optional) Displays the description of the EtherChannel interface configuration.
<b>status</b>	(Optional) Displays the operational state of the EtherChannel interface.

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

**Examples** This example shows how to display the configuration information of a specified EtherChannel interface:

```
switch# show interface port-channel 21
port-channel21 is up
  Hardware: Port-Channel, address: 000d.ece7.df72 (bia 000d.ece7.df72)
  MTU 1500 bytes, BW 10000000 Kbit, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA
  Port mode is trunk
  full-duplex, 10 Gb/s
  Beacon is turned off
  Input flow-control is on, output flow-control is on
  Switchport monitor is off
  Members in this channel: Eth2/3
  Last clearing of "show interface" counters never
  30 seconds input rate 0 bits/sec, 0 packets/sec
  30 seconds output rate 352 bits/sec, 0 packets/sec
  Load-Interval #2: 5 minute (300 seconds)
    input rate 0 bps, 0 pps; output rate 368 bps, 0 pps
```

```

RX
 0 unicast packets  0 multicast packets  0 broadcast packets
 0 input packets  0 bytes
 0 jumbo packets  0 storm suppression packets
 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
 0 unicast packets  15813 multicast packets  9 broadcast packets
15822 output packets  1615917 bytes
 0 jumbo packets
 0 output errors  0 collision  0 deferred  0 late collision
 0 lost carrier  0 no carrier  0 babble
 0 Tx pause
1 interface resets

switch#

```

**Related Commands**

Command	Description
<b>interface port-channel</b>	Configures an EtherChannel interface.

# show ip arp

To display the Address Resolution Protocol (ARP) information, use the **show ip arp** command.

```
show ip arp [ip-addr] {ethernet slot/port | loopback if_number | mgmt mif_number | port-channel
number}] [client] [static] [statistics] [vrf vrf-name]
```

Syntax Description		
<i>ip-addr</i>	(Optional) IPv4 source address. The format is x.x.x.x.	
<b>ethernet</b> <i>slot/port</i>	(Optional) Specifies the Ethernet interface. The slot number is from 1 to 255, and the port number is from 1 to 128.	
<b>loopback</b> <i>if_number</i>	(Optional) Specifies the loopback interface. The loopback interface number is from 0 to 1023.	
<b>mgmt</b> <i>mif_number</i>	(Optional) Specifies the management interface. The management interface number is from 0 to 1023.	
<b>port-channel</b> <i>number</i>	(Optional) Specifies the EtherChannel interface and EtherChannel number. The range is from 1 to 4096.	
<b>client</b>	(Optional) Displays the ARP client table	
<b>static</b>	(Optional) Displays static ARP entries.	
<b>statistics</b>	(Optional) Displays ARP statistics.	
<b>vrf</b> <i>vrf-name</i>	(Optional) Specifies the virtual router context (VRF) name. The name can be any case-sensitive, alphanumeric string up to 32 characters.	

**Command Default** None

**Command Modes** Any command mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

## Examples

This example shows how to display the ARP information:

```
switch# show ip arp
```

```
Flags: D - Static Adjacencies attached to down interface
```

```
IP ARP Table for context default
```

```
Total number of entries: 1
```

```
Address      Age      MAC Address      Interface
2.2.2.100    -        000a.000a.000a  Ethernet1/2
switch#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>ip arp</b>	Configures a static ARP entry.

# show ip arp summary

To display Address Resolution Protocol (ARP) adjacency summary, use the **show ip arp summary** command.

## show ip arp summary

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** Global configuration mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

**Examples** This example shows how to display an ARP adjacency summary:

```
switch# show ip arp summary

IP ARP Table - Adjacency Summary

  Resolved   : 0
  Incomplete : 0
  Unknown    : 0
  Total      : 0

switch#
```

Related Commands	Command	Description
	ip arp timeout	Configures ARP.



# show ip client

To display information about the internal IP clients, use the **show ip client** command.

```
show ip client [name]
```

<b>Syntax Description</b>	<i>name</i> (Optional) Name of the client.				
<b>Command Default</b>	None				
<b>Command Modes</b>	Any command mode				
<b>Command History</b>	<table><thead><tr><th>Release</th><th>Modification</th></tr></thead><tbody><tr><td>6.0(2)N1(1)</td><td>This command was introduced.</td></tr></tbody></table>	Release	Modification	6.0(2)N1(1)	This command was introduced.
Release	Modification				
6.0(2)N1(1)	This command was introduced.				
<b>Examples</b>	This example shows how to display the IP client information for the Address Resolution Protocol (ARP): <pre>switch(config)# <b>show ip client arp</b></pre>				
<b>Related Commands</b>	<table><thead><tr><th>Command</th><th>Description</th></tr></thead><tbody><tr><td><b>show ip process</b></td><td>Displays information about the IP process.</td></tr></tbody></table>	Command	Description	<b>show ip process</b>	Displays information about the IP process.
Command	Description				
<b>show ip process</b>	Displays information about the IP process.				

# show ip interface

To display IP information for an interface, use the **show ip interface** command.

```
show ip interface [type number] [brief] [vrf vrf-name]
```

Syntax Description	
<i>type</i>	(Optional) Interface type. Use ? to see the options.
<i>number</i>	(Optional) Interface number. Use ? to see the range.
<b>brief</b>	(Optional) Displays a summary of IP information.
<b>vrf</b> <i>vrf-name</i>	(Optional) Specifies the name of the virtual routing and forwarding (VRF) instance. The <i>vrf-name</i> argument can be specified as any case-sensitive, alphanumeric string up to 32 characters. The strings “default” and “all” are reserved VRF names.

Command Default	
None	

Command Modes	
Any command mode	

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

## Examples

This example shows how to display the IP information for Ethernet 1/5:

```
switch# show ip interface ethernet 1/5
IP Interface Status for VRF "default"(1)
Ethernet1/5, Interface status: protocol-down/link-down/admin-up, iod: 11,
  IP address: 192.0.0.1, IP subnet: 192.0.0.0/24
  IP broadcast address: 255.255.255.255
  IP multicast groups locally joined: none
  IP MTU: 1500 bytes (using link MTU)
  IP primary address route-preference: 0, tag: 0
  IP proxy ARP : disabled
  IP Local Proxy ARP : disabled
  IP multicast routing: disabled
  IP icmp redirects: enabled
  IP directed-broadcast: disabled
  IP icmp unreachable (except port): disabled
  IP icmp port-unreachable: enabled
  IP unicast reverse path forwarding: none
  IP load sharing: none
  IP interface statistics last reset: never
  IP interface software stats: (sent/received/forwarded/originated/consumed)
    Unicast packets   : 0/0/0/0/0
    Unicast bytes     : 0/0/0/0/0
    Multicast packets : 0/0/0/0/0
    Multicast bytes   : 0/0/0/0/0
    Broadcast packets : 0/0/0/0/0
    Broadcast bytes   : 0/0/0/0/0
```

```
Labeled packets : 0/0/0/0/0
Labeled bytes   : 0/0/0/0/0
switch#
```

**Related Commands**

Command	Description
<b>ip address</b>	Assigns a primary IP address for a network interface.

# show ip wccp

To display global statistics related to the Web Cache Communication Protocol (WCCP), use the **show ip wccp** command.

```
show ip wccp [vrf vrf-id] [service-number | web-cache] [detail | view]
```

Syntax Description		
<b>vrf</b> <i>vrf-id</i>	(Optional) Displays the virtual routing and forwarding (VRF) instance. If no VRF is specified, the command refers to the default global VRF.	
<i>service-number</i>	(Optional) Identification number of the service group that is controlled by the cache engine (CE). The valid range is from 0 to 254.	
<b>web-cache</b>	(Optional) Displays the statistics for the web-cache service.	
<b>detail</b>	(Optional) Displays the information about the router and all web caches.	
<b>view</b>	(Optional) Displays the other members of a service group that have or have not been detected.	

**Command Modes** EXEC command mode

Command History	Release	Modification
	7.0(0)N1(1)	This command was introduced.

**Examples** This example shows how to display WCCP global statistics:

```
switch# show ip wccp 90

Global WCCP information:
  Router information:
    Router Identifier:          1.104.217.34
    Protocol Version:          2.0

  Service Identifier: 61
    Number of Service Group Clients: 1
    Number of Service Group Routers: 1
    Service mode:                Open
    Service Access-list:         -none-
    Redirect Access-list:        red1
    Service Identifier:          62
    Number of Service Group Clients: 1
    Number of Service Group Routers: 1
    Service mode:                Open
    Service Access-list:         -none-
    Redirect Access-list:        red1
```

The following table entries describe the significant fields shown in the display:

Field	Description
Router information	List of routers detected by the current router.
Protocol version	Version of WCCP used by the router in the service group.
Service identifier	Service is detailed.
Number of service group clients	Number of clients visible to the router and other clients in the service group.
Number of service group routers	Number of routers in the service group.
Service mode:Closed	WCCP service mode. Options are open or closed.
Service access list	Named extended IP access list that defines the packets that will match the service.
Redirect access list	Name or number of the access list that determines which packets will be redirected.

This example shows how to display the other members of a service group:

```
switch# show ip wccp 10 view

WCCP Router Informed of:
 10.168.88.10
 10.168.88.20

WCCP Cache Engines Visible
 10.168.88.11
 10.168.88.12

WCCP Cache Engines Not Visible:
 -none-
```

**Note**

The maximum number of service groups that can be configured is 256.

If any cache engine is displayed under the WCCP Cache Engines Not Visible field, the router needs to be reconfigured to map the cache engine that is not visible to it.

The following table describes the significant fields shown in the display.

Field	Description
WCCP Router Informed of	List of routers detected by the current router.
WCCP Clients Visible	List of clients that is visible to the router and other clients in the service group.
WCCP Clients Not Visible	List of clients in the service group that is not visible to the router and other clients in the service group.

This example show how to display WCCP client information and WCCP router statistics that include the type of services:

```
switch# show ip wccp 91 detail

WCCP Client information:
 WCCP Client ID: 70.1.1.1
```

## ■ show ip wccp

```

Protocol Version: 2.0
State: Usable
Redirection: L2
Packet Return: L2
Connect Time: 25:32:16
Assignment: MASK
Mask SrcAddr DstAddr SrcPort DstPort
0001: 0x00000001 0x00000000 0x0000 0x0000
Value SrcAddr DstAddr SrcPort DstPort CE-IP
-----
0001: 0x00000000 0x00000000 0x0000 0x0000 0x46010101 (70.1.1.1)
0002: 0x00000001 0x00000000 0x0000 0x0000 0x46010101 (70.1.1.1)

```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>ip wccp</b>	Enables WCCP on a router and specifies the type of services to be used.
<b>ip wccp redirect</b>	Enables packet redirection on an outbound or inbound interface using WCCP.
<b>show ip interface</b>	Lists a summary of the IP information and status of an interface.

# show running-config arp

To display the Address Resolution Protocol (ARP) configuration in the running configuration, use the **show running-config arp** command.

**show running-config arp [all]**

<b>Syntax Description</b>	<b>all</b> (Optional) Displays configured and default information.				
<b>Command Default</b>	None				
<b>Command Modes</b>	Any command mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>6.0(2)N1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	6.0(2)N1(1)	This command was introduced.
Release	Modification				
6.0(2)N1(1)	This command was introduced.				

## Examples

This example shows how to display the ARP configuration:

```
switch# show running-config arp

!Command: show running-config arp
!Time: Mon Aug 23 07:33:15 2010

version 5.0(2)N1(1)
ip arp timeout 2100
ip arp event-history errors size medium

interface Vlan10
  ip arp 192.0.11.37 00C0.4F00.0000

switch#
```

This example shows how to display the ARP configuration with the default information:

```
switch# show running-config arp all

!Command: show running-config arp all
!Time: Mon Aug 23 07:33:52 2010

version 5.0(2)N1(1)
ip arp timeout 1500
ip arp event-history cli size small
ip arp event-history snmp size small
ip arp event-history client-errors size small
ip arp event-history client-event size small
ip arp event-history lcache-errors size small
ip arp event-history lcache size small
ip arp event-history errors size small
ip arp event-history ha size small
ip arp event-history event size small
ip arp event-history packet size small
```

**show running-config arp**

```
interface Vlan10
  ip arp 192.0.11.37 00C0.4F00.0000
  ip arp gratuitous update
  ip arp gratuitous request

switch#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>copy running-config startup-config</b>	Copies the running configuration to the startup configuration file.
<b>ip arp timeout</b>	Configures an ARP timeout.
<b>show startup-config arp</b>	Displays the ARP startup configuration.



# show running-config arp

To display the Address Resolution Protocol (ARP) configuration in the running configuration, use the **show running-config arp** command.

**show running-config arp [all]**

<b>Syntax Description</b>	<b>all</b> (Optional) Displays configured and default information.				
<b>Command Default</b>	None				
<b>Command Modes</b>	Any command mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>6.0(2)N1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	6.0(2)N1(1)	This command was introduced.
Release	Modification				
6.0(2)N1(1)	This command was introduced.				

## Examples

This example shows how to display the ARP configuration:

```
switch# show running-config arp

!Command: show running-config arp
!Time: Mon Aug 23 07:33:15 2010

version 5.0(2)N1(1)
ip arp timeout 2100
ip arp event-history errors size medium

interface Vlan10
  ip arp 192.0.11.37 00C0.4F00.0000

switch#
```

This example shows how to display the ARP configuration with the default information:

```
switch# show running-config arp all

!Command: show running-config arp all
!Time: Mon Aug 23 07:33:52 2010

version 5.0(2)N1(1)
ip arp timeout 1500
ip arp event-history cli size small
ip arp event-history snmp size small
ip arp event-history client-errors size small
ip arp event-history client-event size small
ip arp event-history lcache-errors size small
ip arp event-history lcache size small
ip arp event-history errors size small
ip arp event-history ha size small
ip arp event-history event size small
ip arp event-history packet size small
```

## show running-config arp

```

interface Vlan10
  ip arp 192.0.11.37 00C0.4F00.0000
  ip arp gratuitous update
  ip arp gratuitous request

switch#

```

### Related Commands

Command	Description
<b>copy running-config startup-config</b>	Copies the running configuration to the startup configuration file.
<b>ip arp timeout</b>	Configures an ARP timeout.
<b>show startup-config arp</b>	Displays the ARP startup configuration.

# show startup-config arp

To display the Address Resolution Protocol (ARP) configuration in the startup configuration, use the **show startup-config arp** command.

**show startup-config arp [all]**

<b>Syntax Description</b>	<b>all</b> (Optional) Displays configured and default information.
---------------------------	--

<b>Command Default</b>	None
------------------------	------

<b>Command Modes</b>	Any command mode
----------------------	------------------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	6.0(2)N1(1)	This command was introduced.

## Examples

This example shows how to display the ARP startup configuration:

```
switch# show startup-config arp

!Command: show running-config arp
!Time: Mon Aug 23 07:33:15 2010

version 5.0(2)N1(1)
ip arp timeout 2100
ip arp event-history errors size medium

interface Vlan10
  ip arp 192.0.1.37 00C0.4F00.0000

switch#
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>copy running-config startup-config</b>	Copies the running configuration to the startup configuration file.
	<b>ip arp timeout</b>	Configures an ARP timeout.
	<b>show running-config arp</b>	Displays the ARP running configuration.

