



## Switch Show Commands

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- [switch show arp, on page 2](#)
- [switch show bridge multicast filtering, on page 3](#)
- [switch show bridge multicast unregistered, on page 4](#)
- [switch show dot1x, on page 5](#)
- [switch show lacp, on page 9](#)
- [switch show interface advertise, on page 11](#)
- [switch show interface configuration, on page 12](#)
- [switch show interface counters, on page 13](#)
- [switch show interface description, on page 15](#)
- [switch show interface protected-ports, on page 16](#)
- [switch show interface port-channel, on page 17](#)
- [switch show interface status, on page 18](#)
- [switch show interface storm-control, on page 19](#)
- [switch show interface switchPort, on page 20](#)
- [switch show ip igmp snooping groups, on page 21](#)
- [switch show ip igmp snooping interface, on page 22](#)
- [switch show ip igmp snooping mrouter, on page 23](#)
- [switch show ip interface, on page 24](#)
- [switch show ip route, on page 25](#)
- [switch show mac address-table, on page 26](#)
- [switch show power-inline, on page 28](#)
- [switch show radius-server configuration, on page 32](#)
- [switch show radius-server key, on page 33](#)
- [switch show rmon statistics, on page 34](#)
- [switch show spanning-tree, on page 35](#)
- [switch show vlan, on page 37](#)

# switch show arp

To display entries in the ARP table, use the **switch show arp** command in privileged EXEC mode.

## switch show arp

### Syntax Description

This command has no arguments.

### Command Modes

Privileged EXEC (#)

### Command History

#### Release Modification

3.5.1 This command was introduced.

### Usage Guidelines

The Interface field can be empty because the associated interface of a MAC address can be aged out from the FDB table.

If an ARP entry is associated with an IP interface that is defined on a port or port channel, the VLAN field is empty.

### Example

The following example displays entries in the ARP table:

```
nfvis# switch show arp
```

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

VLAN	Interface	IP Address	HW Address	status
VLAN2363	te1/2	169.254.1.1	00:3a:7d:31:42:3b	dynamic

# switch show bridge multicast filtering

To display the multicast filtering configuration, use the **switch show bridge multicast filtering** command in privileged EXEC mode.

```
switch show bridge multicast filtering vlan vlan-id
```

<b>Syntax Description</b>	<b>vlan</b> <i>vlan-id</i> Specifies the VLAN.				
<b>Command Default</b>	Display multicast filtering configuration for all the VLANs.				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

## Example

The following example displays the Multicast configuration for VLAN 1.

```
nfvis# switch show bridge multicast filtering vlan 1
```

```
Filtering: Enabled
VLAN: 1
Forward-All
```

Port	Static	Status
gi0	-	Filter
gi1	-	Filter
gi2	-	Filter
gi3	-	Filter
gi4	-	Filter
gi5	-	Filter
gi6	-	Filter
gi7	-	Filter
te2	-	Filter
te4	-	Filter
po1	-	Filter
po2	-	Filter
po3	-	Filter
po4	-	Filter

# switch show bridge multicast unregistered

To display the unregistered Multicast filtering configuration, use the **switch show bridge multicast unregistered** command in privileged EXEC mode.

**switch show bridge multicast unregistered**

<b>Syntax Description</b>	No default argument or values				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

## Example

The following example displays the unregistered Multicast configuration.

```
nfvis# switch show bridge multicast unregistered
```

```

      Port      Unregistered
-----
      gil/0      Forward
      gil/1      Filter
      gil/2      Forward
      gil/3      Forward
      gil/4      Forward
      gil/5      Forward
      gil/6      Forward
      gil/7      Forward

```

# switch show dot1x

Use the **switch show dot1x** command in privileged EXEC mode to do the following:

- Display the 802.1X interfaces or a specified interface status.
- Display information on all the ports (including not-present ports).
- Display 802.1x statistics.
- Display active 802.1X authorized users for the device.

## Release 3.6.1 and Later Releases

```
switch show dot1x {detailed | interface gigabitEthernet interface-id | statistics | users}
```

## Release 3.5.1

```
switch show dot1x {all | detailed | interface gigabitEthernet interface-id | statistics  
[gigabitEthernet interface-id] | users}
```

<b>Syntax Description</b>	<b>all</b>	Display by all dot1x. This parameter is available only in Release 3.5.1.
	<b>detailed</b>	Displays information for non-present ports in addition to present ports.
	<b>interface gigabitEthernet interface-id</b>	Displays the information for the specified interface ID.
	<b>statistics</b>	Display 802.1x statistics.
	<b>users</b>	Display active 802.1 authenticated users.
<b>Command Default</b>	If <b>detailed</b> parameter is used, information about all ports is displayed. If <b>users</b> parameter is used, information about all users is displayed.	
<b>Command Modes</b>	Privileged EXEC (#)	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	3.6.1	The command parameters are changed.
	3.5.1	This command was introduced.

## Example 1

The following example specifies that unregistered Multicast packets are filtered on the interface gigabitEthernet 1/1:

```
nfvis# switch show dot1x detailed
```

```
Authentication is enabled
Authentication Servers Radius
UNauthenticated VLANs:
Authentication failure traps are disabled
Authentication success traps are disabled

gil/0
Host mode: multiple
Port Administrated Status: force-authorized
Guest VLAN: disabled
Open access: disabled
Server timeout: 30 sec
Port Operational Status: authorized*
* Port is down or not present
Reauthenticaiion is enabled
Reauthentication period: 500
Quiet period: 120 sec
Interfaces 802.1X-Based Parameters
  Tx period: 60 sec
  supplicantTimeout: 3600 sec
  Max req: 6
Authentication success: 0
Authentication fails: 0

gil/1
Host mode: multiple
Port Administrated Status: force-authorized
Guest VLAN: disabled
Open access: disabled
Server timeout: 30 sec
Port Operational Status: authorized*
* Port is down or not present
Reauthenticaiion is disabled
Reauthentication period: 3600
Quiet period: 60 sec
Interfaces 802.1X-Based Parameters
  Tx period: 30 sec
  supplicantTimeout: 30 sec
  Max req: 2
Authentication success: 0
Authentication fails: 0

gil/2
Host mode: multiple
Port Administrated Status: force-authorized
Guest VLAN: disabled
Open access: disabled
Server timeout: 30 sec
Port Operational Status: authorized*
* Port is down or not present
Reauthenticaiion is disabled
Reauthentication period: 3600
Quiet period: 60 sec
Interfaces 802.1X-Based Parameters
  Tx period: 30 sec
  supplicantTimeout: 30 sec
  Max req: 2
Authentication success: 0
Authentication fails: 0
```

The following list describes the significant fields shown in the example:

- **Port:** The port interface-id.
- **Host mode:** The port authentication configured mode. Possible values: single-host, multi-host, multi-sessions.
- **Port Administrated status:** The port administration (configured) mode. Possible values: force-auth, force-unauth, auto.
- **Port Operational status:** The port operational (actual) mode. Possible values: authorized or unauthorized.
- **Quiet period:** Number of seconds the device remains in the quiet state following a failed authentication exchange (for example, the client provided an invalid password).
- **Tx period:** Number of seconds the device waits for a response to an Extensible Authentication Protocol (EAP) request/identity frame from the client before resending the request.
- **Supplicant timeout:** Number of seconds the device waits for a response to an EAP-request frame from the client before resending the request.
- **Max req:** Maximum number of times the device sends an EAP request frame (assuming that no response is received) to the client before restarting the authentication process.
- **Authentication success:** Number of times the state machine received a Success message from the Authentication Server.
- **Authentication fails:** Number of times the state machine received a Failure message from the Authentication Server.

### Example 3

The following example displays 802.1X statistics for gigabitEthernet 1/1:

```
nfvis# switch show dot1x statistics gigabitEthernet 1/1
Interface: g11/0
EapolFramesRx: 11
EapolFramesTx: 14
EapolStartFramesRx: 9
EapolLogoffFramesRx: 0
EapolRespIdFramesRx: 1
EapolRespFramesRx: 1
EapolReqIdFramesTx: 1
EapolReqFramesTx: 1
InvalidEapolFramesRx: 0
EapLengthErrorFramesRx: 0
LastEapolFrameVersion: 1
LastEapolFrameSource: 00:1f:26:66:d4:06
```

The following list describes the significant fields shown in the example:

- **EapolFramesRx:** Number of valid EAPOL frames of any type that have been received by this Authenticator.
- **EapolFramesTx:** Number of EAPOL frames of any type that have been transmitted by this Authenticator.

- **EapolStartFramesRx**: Number of EAPOL Start frames that have been received by this Authenticator.
- **EapolLogoffFramesRx**: Number of EAPOL Logoff frames that have been received by this Authenticator.
- **EapolRespIdFramesRx**: Number of EAP Resp/Id frames that have been received by this Authenticator.
- **EapolRespFramesRx**: Number of valid EAP Response frames (other than Resp/Id frames) that have been received by this Authenticator.
- **EapolReqIdFramesTx**: Number of EAP Req/Id frames that have been transmitted by this Authenticator.
- **EapolReqFramesTx**: Number of EAP Request frames (other than Req/Id frames) that have been transmitted by this Authenticator.
- **InvalidEapolFramesRx**: Number of EAPOL frames that have been received by this Authenticator for which the frame type is not recognized.
- **EapolLengthErrorFramesRx**: Number of EAPOL frames that have been received by this Authenticator in which the Packet Body Length field is invalid.
- **LastEapolFrameVersion**: Protocol version number carried in the most recently received EAPOL frame.
- **LastEapolFrameSource**: Source MAC address carried in the most recently received EAPOL frame.



# switch show lacp

To display LACP information for all interfaces or a specific interface, use the **switch show lacp** command in privileged EXEC mode.

```
switch show lacp [{gigabitEthernet | port-channel} interface-id]
```

Syntax Description	
<b>gigabitEthernet</b>	Specifies Gigabit Ethernet as the interface type.
<b>port-channel</b>	Specifies port channel as the interface type.
<i>interface-id</i>	Specifies the interface ID.

**Command Default** Displays LACP information for all interfaces.

**Command Modes** Privileged EXEC (#)

**Command History** **Release Modification**

3.6.1 This command was introduced.

## Example

The following is a sample output of the **switch show lacp** command for Gigabit Ethernet interface 1/0.

```
nfvis# switch show lacp gigabitEthernet 1/0

Port gil/0 LACP parameters:
  Actor
    system priority:          1
    system mac addr:         00:a6:ca:d6:38:50
    port Admin key:          0
    port Oper key:           0
    port Oper number:        1
    port Admin priority:     1
    port Admin timeout:      LONG
    port Oper timeout:       LONG
    LACP Activity:           PASSIVE
    Aggregation:             AGGREGATABLE
    synchronization:        FALSE
    collecting:               FALSE
    distributing:            FALSE
    expired:                  FALSE
  Partner
    system priority:          0
    system mac addr:         00:00:00:00:00:00
    port Admin key:          0
    port Oper key:           0
    port Oper number:        0
    port Admin priority:     0
    port Oper priority:      0
    port Oper timeout:       LONG
    LACP Activity:           PASSIVE
```

```
Aggregation:          AGGREGATABLE
synchronization:     FALSE
collecting:           FALSE
distributing:         FALSE
expired:              FALSE
```

# switch show interface advertise

To display auto-negotiation advertisement information for all configured interfaces or for a specific interface, use the **switch show interface advertise** command in privileged EXEC mode.

```
switch show interface advertise [{gigabitEthernet | port-channel} interface-id]
```

<b>Syntax Description</b>	<b>gigabitEthernet</b>	Specifies Gigabit Ethernet as the interface type.
	<b>port-channel</b>	Specifies port channel as the interface type.
	<i>interface-id</i>	Specifies the interface ID.
<b>Command Default</b>	Displays information for all interfaces.	
<b>Command Modes</b>	Privileged EXEC (#)	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	3.6.1	The port-channel parameter is added.
	3.5.1	This command was introduced.

## Example

The following example displays auto-negotiation advertisement information for the interface gigabitEthernet 1/1:

```
nfvis# switch show interface advertise gigabitEthernet 1/1
```

```
Port: gi1/1
Type: 1G-Copper
Link state: Down
Auto negotiation: Enabled
Preference: Slave
```

# switch show interface configuration

To display the configuration for all configured interfaces or a specific interface, use the **switch show interface configuration** command in privileged EXEC mode.

**switch show interface configuration** [{**gigabitEthernet** | **port-channel**} *interface-id*]

Syntax Description	
<b>gigabitEthernet</b>	Specifies Gigabit Ethernet as the interface type.
<b>port-channel</b>	Specifies port channel as the interface type.
<i>interface-id</i>	Specifies the interface ID.

**Command Default** Displays configuration for all interfaces.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	3.6.1	The port-channel parameter is added.
	3.5.1	This command was introduced.

## Example

The following example displays the configuration of all configured interfaces:

```

nfvis# switch show interface configuration

```

Port	Type	Duplex	Speed	Neg	Flow ctrl	Admin State	Mdix Mode
gi1/0	1G-Copper	full	1000	Enabled	off	Up	auto
gi1/1	1G-Copper	full	1000	Enabled	off	Up	auto
gi1/2	1G-Copper	full	1000	Disabled	on	Up	auto
gi1/3	1G-Copper	full	1000	Enabled	off	Up	auto
gi1/4	1G-Copper	full	1000	Enabled	off	Up	auto
gi1/5	1G-Copper	full	1000	Enabled	off	Up	auto
gi1/6	1G-Copper	full	1000	Enabled	off	Up	auto
gi1/7	1G-Copper	full	1000	Enabled	off	Up	auto

  

Ch	Type	Speed	Neg	Flow ctrl	Admin State
po1	1G-Copper	--	Enabled	off	Up
po2	1G-Copper	--	Enabled	off	Up
po3	1G-Copper	--	Enabled	off	Up
po4	1G-Copper	--	Enabled	off	Up

# switch show interface counters

To display traffic seen by all the physical interfaces or by a specific interface, use the **switch show interfaces counters** command in privileged EXEC mode.

```
switch show interface counters [{gigabitEthernet | port-channel} interface-id]
```

Syntax Description	
<b>gigabitEthernet</b>	Specifies Gigabit Ethernet as the interface type.
<b>port-channel</b>	Specifies port channel as the interface type.
<i>interface-id</i>	Specifies the interface ID.

**Command Default** Display counters for all interfaces.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	3.6.1	The port-channel parameter is added.
	3.5.1	This command was introduced.

## Example

The following example displays traffic seen by the Gigabit Ethernet interface 1/1:

```
nfvis# switch show interface counters gigabitEthernet 1/1
```

Port	InUcastPkts	InMcastPkts	InBcastPkts	InOctets
gil/1	0	0	0	0

  

Port	OutUcastPkts	OutMcastPkts	OutBcastPkts	OutOctets
gil/1	0	0	0	0

**Table 1: switch show interface counters Field Description**

Field	Description
InUcastPkts	Number of received Unicast packets.
InMcastPkts	Number of received Multicast packets.
InBcastPkts	Number of received broadcast packets.
InOctets	Number of received octets.
OutUcastPkts	Number of transmitted Unicast packets.
OutMcastPkts	Nmber of transmitted Multicast packets.

Field	Description
OutBcastPkts	Number of transmitted Broadcast packets.
OutOctets	Number of transmitted octets.

# switch show interface description

To display the description of all configured interfaces or a specific interface, use the **switch show interface description** command in privileged EXEC mode.

```
switch show interface description [{gigabitEthernet | port-channel} interface-id]
```

## Syntax Description

**gigabitEthernet** Specifies Gigabit Ethernet as the interface type.

**port-channel** Specifies port channel as the interface type.

*interface-id* Specifies the interface ID.

## Command Default

Displays description for all interfaces.

## Command Modes

Privileged EXEC (#)

## Command History

Release	Modification
3.6.1	The port-channel parameter is added.
3.5.1	This command was introduced.

## Example

The following example displays the description for all configured interfaces:

```
nfvis# switch show interface description
```

```
Port          Description
-----
gil/0         None
gil/1         None
gil/2         SW2
gil/3         None
gil/4         None
gil/5         None
gil/6         None
gil/7         None

Ch           Description
-----
po1          None
po2          None
po3          None
po4          None
```

# switch show interface protected-ports

To display information about all protected interfaces or a specific interface, use the **switch show interface protected-ports** command in privileged EXEC mode.

```
switch show interface protected-ports [{gigabitEthernet | port-channel} interface-id]
```

Syntax Description	
<b>gigabitEthernet</b>	Specifies Gigabit Ethernet as the interface type.
<b>port-channel</b>	Specifies port channel as the interface type.
<i>interface-id</i>	Specifies the interface ID.

**Command Default** Displays the information about all protected interfaces.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	3.6.1	The port-channel parameter is added.
	3.5.1	This command was introduced.

## Example

The following example displays the information about all protected interfaces:

```
nfvis# switch show interface protected-ports
```

```
Interface      State      Community
-----
  gi1/0        Unprotected  Isolated
  gi1/1        Unprotected  Isolated
  gi1/2        Unprotected  Isolated
  gi1/3        Unprotected  Isolated
  gi1/4        Unprotected  Isolated
  gi1/5        Unprotected  Isolated
  gi1/6        Unprotected  Isolated
  gi1/7        Unprotected  Isolated
```



# switch show interface port-channel

To display information about all port channel interfaces or a specific interface, use the **switch show interface port-channel** command in privileged EXEC mode.

```
switch show interface port-channel [interface-id]
```

<b>Syntax Description</b>	<i>interface-id</i> (Optional) Specifies an interface ID.
<b>Command Default</b>	Displays information about all port channels.
<b>Command Modes</b>	Privileged EXEC (#)
<b>Command History</b>	<b>Release Modification</b>
	3.6.1 This command was introduced.

## Example

The following example displays the port channels information:

```
nfvis# switch show interface port-channel
Channel      Ports
-----
Load balancing: src-dst-mac

po1
po2
po3
po4
```

# switch show interface status

To display the status of all interfaces or a specific interface, use the **switch show interface status** command in privileged EXEC mode.

**switch show interface status** [{**gigabitEthernet** | **port-channel**} *interface-id*]

Syntax Description	
<b>gigabitEthernet</b>	Specifies Gigabit Ethernet as the interface type.
<b>port-channel</b>	Specifies port channel as the interface type.
<i>interface-id</i>	Specifies the interface ID.

**Command Default** Displays status of all interfaces.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	3.6.1	The port-channel parameter is added.
	3.5.1	This command was introduced.

## Example

The following example displays the status of all interfaces:

```

nfvis# switch show interface status

```

Port	Type	Duplex	Speed	Neg	Flow ctrl	Link State	Mdix Mode
gi1/0	1G-Copper	--	1000	--	off	Down	--
gi1/1	1G-Copper	--	1000	--	off	Down	--
gi1/2	1G-Copper	--	1000	--	off	Down	--
gi1/3	1G-Copper	--	1000	--	off	Down	--
gi1/4	1G-Copper	--	1000	--	off	Down	--
gi1/5	1G-Copper	--	1000	--	off	Down	--
gi1/6	1G-Copper	--	1000	--	off	Down	--
gi1/7	1G-Copper	--	1000	--	off	Down	--

  

Ch	Type	Duplex	Speed	Neg	Flow ctrl	Link State
po1	1G-Copper	--	--	--	off	Not Presence
po2	1G-Copper	--	--	--	off	Not Presence
po3	1G-Copper	--	--	--	off	Not Presence
po4	1G-Copper	--	--	--	off	Not Presence

# switch show interface storm-control

To display the storm control configuration, use the **switch show interface storm-control** command in privileged EXEC mode.

```
switch show interface storm-control
```

## Syntax Description

No default argument or values

## Command Modes

Privileged EXEC (#)

## Command History

Release	Modification
4.1.1	This command was introduced.

## Example

The following example displays storm control configuration:

```
nfvis# switch show interface storm-control

PORT      BROADCAST BROADCAST UNICAST  UNICAST MULTICAST  MULTICAST
          LEVEL      Kbps      LEVEL Kbps      LEVEL      Kbps
1/0       0 0 0 0 0 0 0
1/1       0 0 0 0 0 0 0
1/2       0 0 0 0 0 0 0
1/3       0 0 0 0 0 0 0
1/4       0 0 0 0 0 0 0
1/5       0 0 0 0 0 0 0
1/6       0 0 0 0 0 0 0
1/7       0 0 0 0 0 0 0
```

# switch show interface switchPort

To display the switchport information of all interfaces or a specific interface, use the **switch show interface switchPort** command in privileged EXEC mode.

**switch show interface switchPort** [{**gigabitEthernet** | **port-channel**} *interface-id*]

<b>Syntax Description</b>	<b>gigabitEthernet</b> Specifies Gigabit Ethernet as the interface type.
	<b>port-channel</b> Specifies port channel as the interface type.
	<i>interface-id</i> Specifies the interface ID.
<b>Command Default</b>	Displays switchport information of all interfaces.
<b>Command Modes</b>	Privileged EXEC (#)
<b>Command History</b>	<b>Release</b> <b>Modification</b>
	3.5.1   This command was introduced.

## Example

The following is a sample output of the **switch show interface switchPort** command that displays switchport information for Gigabit Interface 1/0:

```

nfvis# switch show interface switchport gigabitEthernet 1/0
Name: gi1/0
Switchport: enable
Administrative Mode: access
Operational Mode: Down
Access Mode VLAN: 1
Trunking Native Mode VLAN: 1
Trunking VLANs: 1-2349,2450-4093
General PVID: 1
General VLANs: none
General Egress Tagged VLANs: None
General Forbidden VLANs: None
General Ingress Filtering: disabled
General Acceptable Frame Type: all
General GVRP status: disabled
Customer Mode VLAN: none
Private-vlan promiscuous-association primary VLAN: none
Private-vlan promiscuous-association Secondary VLANs: none
Private-vlan host-association primary VLAN: none
Private-vlan host-association Secondary VLAN: none

```

# switch show ip igmp snooping groups

To display the Multicast groups learned by IGMP snooping, use the **switch show ip igmp snooping groups** command in the privileged EXEC mode.

```
switch show ip igmp snooping groups [vlan vlan-id] [ip-addr ip-address]
```

<b>Syntax Description</b>	<b>vlan</b> <i>vlan-id</i> (Optional) Specifies the VLAN.				
	<b>ip-addr</b> <i>ip-address</i> (Optional) Specifies the IP address.				
<b>Command Default</b>	No default behavior or values.				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

**Usage Guidelines** To see all Multicast groups learned by IGMP snooping, use the **switch show ip igmp snooping groups** command without parameters. To see a subset of Multicast groups learned by IGMP snooping, use the **switch show ip igmp snooping groups command** with parameters.

## Example

The following example shows a sample output for the command:

```
nfvis# switch show ip igmp snooping groups
Vlan          Group          Source          Include Ports  Exclude Ports  Comp.
Address       Address        Address
-----
1             239.255.255.250 *             gi1/0/1                v2
```

## switch show ip igmp snooping interface

To display the IGMP snooping configuration for a specific VLAN, use the **switch show ip igmp snooping interface** command in the privileged EXEC mode.

```
switch show ip igmp snooping interface [vlan-id]
```

<b>Syntax Description</b>	<i>vlan-id</i> (Optional) Specifies the VLAN.				
<b>Command Default</b>	None				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

### Example

The following example displays the IGMP snooping configuration for VLAN 20:

```
nfvis# switch show ip igmp snooping interface 20

IGMP Snooping is globally enabled
IGMP Snooping Querier is globally disabled
VLAN 20
  IGMP Snooping is disabled
  IGMP snooping last immediate leave: disabled
  Automatic learning of Multicast router ports is enabled
  IGMP Snooping Querier is disabled
  IGMP Snooping Querier operation state: is not running
  IGMP Snooping Querier version: 2
  IGMP Snooping Querier election is enabled
  IGMP Snooping Querier address : 255.255.255.255
  IGMP snooping robustness: admin 2 oper 2
  IGMP snooping query interval: admin 125 sec oper 125 sec
  IGMP snooping query maximum response: admin 10 sec oper 10 sec
  IGMP snooping last member query counter: admin 0 oper 2
  IGMP snooping last member query interval: admin 1000 msec oper 1000 msec

Groups that are in IGMP version 2 compatibility mode:
Groups that are in IGMP version 1 compatibility mode:
```

# switch show ip igmp snooping mrouter

To display information on dynamically learned Multicast router interfaces for all VLANs or for a specific VLAN, use the **switch show ip igmp snooping mrouter** command in privileged EXEC mode.

```
switch show ip igmp snooping mrouter [interface vlan-id]
```

<b>Syntax Description</b>	<b>interface</b> <i>vlan-id</i>	(Optional) Specifies the VLAN.
<b>Command Default</b>	None	
<b>Command Modes</b>	Privileged EXEC (#)	
<b>Command History</b>	<b>Release Modification</b>	
	3.5.1	This command was introduced.

## Example

The following example displays information on dynamically learned Multicast router interfaces for VLAN 1:

```
nfvis# switch show ip igmp snooping mrouter interface 1
Vlan      Dynamic      Static      Forbidden
-----
1         None         None         gil
```

# switch show ip interface

To display the usability status of configured IP interfaces, use the **switch show ip interface** command in privileged EXEC mode.

## switch show ip interface

<b>Syntax Description</b>	This command has no arguments.				
<b>Command Default</b>	All IP addresses.				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

## Example

The following example displays all configured IP addresses and their types:

```
nfvis# switch show ip interface
```

IP Address	I/F	I/F Status admin/oper	Type	Directed Broadcast	Prec	Redirect	Status
169.254.1.0	VLAN2363	Up/Up	Static	disable	No	enable	enable



# switch show ip route

To display the current state of the routing table, use the **switch show ip route** command in the privileged EXEC mode.

**switch show ip route**

<b>Syntax Description</b>	This command has no arguments or keywords.
<b>Command Default</b>	None
<b>Command Modes</b>	Privileged EXEC (#)
<b>Command History</b>	<b>Release Modification</b>
	3.5.1 This command was introduced.

## Example

The following example shows a sample output from the **switch show ip route** command when IP routing is enabled:

```
nfvis# switch show ip route

Maximum Parallel Paths: 1 (1 after reset)
IP Forwarding: enabled

Codes: > - best, C - connected, S - static

C 169.254.0.0/16 is directly connected, VLAN2363
```

# switch show mac address-table

To display entries in the MAC address table, use the **switch show mac address-table** command in privileged EXEC mode.

```
switch show mac address-table {count | dynamic | static | using} [{vlan vlan-id |
gigabitEthernet interface-id | port-channel interface-id | address mac-address}]
```

Syntax Description		
<b>count</b>		Displays the number of addresses present in the Forwarding database.
<b>dynamic</b>		Displays dynamic address.
<b>static</b>		Displays static addresses.
<b>using</b>		Displays entries using specific interface or MAC address.
<b>vlan <i>vlan-id</i></b>	(Optional)	Displays entries for a specific VLAN.
<b>gigabitEthernet <i>interface-id</i></b>	(Optional)	Displays entries for a specific Gigabit Ethernet interface.
<b>port-channel <i>interface-id</i></b>	(Optional)	Displays entries for a specific port channel.
<b>address <i>mac-address</i></b>	(Optional)	Displays entries for a specific MAC address.

**Command Default** If no parameters are entered, the entire table is displayed.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	3.5.1	This command was introduced.

**Usage Guidelines** Internal usage VLANs (VLANs that are automatically allocated on routed ports) are presented in the VLAN column by a port number and not by a VLAN ID.

## Example 1

```
nfvis# switch show mac address-table using vlan 1
```

Vlan	Mac Address	Port	Type
1	00:3a:7d:31:42:ac	none	n/a

## Example 2

```
nfvis# switch show mac address-table count
```

```
Capacity : 8192
Free      : 8190
Used      : 2
Secure    : 0
Dynamic   : 1
```

```
Static : 0  
Internal : 1
```

# switch show power-inline

To display inline power information, use the **switch show power-inline** command in privileged EXEC mode.

## switch show power-inline

<b>Syntax Description</b>	This command has no arguments.				
<b>Command Default</b>	None				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

## Example

The following is a sample output of the **switch show power-inline** command:

```

nfvis# switch show power-inline
Power-limit mode: Class based
Nominal Power (W): 200
Consumed Power (W): 0

Interface: gil/0
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0

Interface: gil/1
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0

```

```
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0
```

```
Interface: gil/2
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0
```

```
Interface: gil/3
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0
```

```
Interface: gil/4
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
```

```
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0

Interface: gil/5
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0

Interface: gil/6
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
Invalid Signature Counter: 0

Interface: gil/7
Admin state: auto
Operational stat: Searching
Power (W): 0.0
Class: 0
Device: None
Priority: low
Port standard: 60W PoE
Admin power limit (W): 30.0
Operational power limit (W): 30.0
Spare pair: Disabled
Negotiated power (W): 0.0
Current (mA): 0
Voltage (V): 0.0
Overload Counter: 0
Short Counter: 0
Denied Counter: 0
Absent Counter: 0
```

Invalid Signature Counter: 0

# switch show radius-server configuration

To display the RADIUS server settings, use the **switch show radius-server configuration** command in privileged EXEC mode.

**switch show radius-server configuration**

<b>Syntax Description</b>	This command has no arguments.				
<b>Command Modes</b>	Privileged EXEC (#)				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>3.5.1</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	3.5.1	This command was introduced.
Release	Modification				
3.5.1	This command was introduced.				

## Example

The following example displays RADIUS server settings:

```

nfvis# switch show radius-server configuration

IP address  Port   port   Time-   Ret-   Dead-   Prio.   Usage
            Auth  Acct   Out     rans   Time
-----
Global values
-----
TimeOut : 3
Retransmit : 3
Deadtime : 0
Source IPv4 interface : none
Source IPv6 interface : none

```



# switch show radius-server key

To display the RADIUS server key settings, use the **switch show radius-servers key** command in privileged EXEC mode.

**switch show radius-server key**

---

**Syntax Description**

This command has no arguments.

---

---

**Command Modes**

Privileged EXEC (#)

---

---

**Command History**

---

**Release Modification**

3.5.1 This command was introduced.

---

## Example

The following example displays RADIUS server key settings:

```
nfvis# switch show radius-server key
```

```
      IP address      key
-----
172.16.1.1           Sharon123
172.16.1.2           Bruce123
```

```
Global key
```

```
-----
Alice456
```

## switch show rmon statistics

To display RMON statistics, use the **switch show rmon statistics** command in privileged EXEC mode.

```
switch show rmon statistics {gigabitEthernet | port-channel} interface-id
```

### Syntax Description

**gigabitEthernet** Specifies Gigabit Ethernet as the interface type.

**port-channel** Specifies port channel as the interface type.

*interface-id* Specifies the interface ID.

### Command Modes

Privileged EXEC (#)

### Command History

Release	Modification
3.6.1	The port-channel parameter is added.
3.5.1	This command was introduced.

### Example

The following example displays RMON statistics for the interface gigabitEthernet 1/1

```
nfvis# switch show rmon statistics gigabitEthernet 1/1
```

```
Port                gil/1
Dropped:            0
Octets:              0      Packets:              0
Broadcast:          0      Multicast:            0
CRC Align Errors:   0      Collisions:           0
Undersize Pkts:     0      Oversize Pkts:        0
Fragments:          0      Jabbers:              0
64 Octets:           0      65 to 127 Octets:    0
128 to 255 Octets:  0      256 to 511 Octets:   0
512 to 1023 Octets: 0      1024 to max Octets:  0
```

# switch show spanning-tree

To display the spanning-tree configuration, use the **switch show spanning-tree** command in privileged EXEC mode.

```
switch show spanning-tree {summary | bpdudetail | interface [{gigabitEthernet | port-channel} interface-id] }
```

Syntax Description		
<b>summary</b>		Displays summarized information.
<b>bpdudetail</b>		Displays Bridge Protocol Data Unit (BPDU) information.
<b>detail</b>		Displays detailed BPDU information.
<b>interface</b>		Specifies the interface type for BPDU information.
<b>gigabitEthernet</b>		Specifies Gigabit Ethernet as the interface type.
<b>port-channel</b>		Specifies port channel as the interface type.
<i>interface-id</i>		Specifies the interface ID for BPDU information.

**Command Default** None

**Command Modes** Privileged EXEC (#)

**Command History**

Release	Modification
3.5.1	This command was introduced.

**Usage Guidelines** This command work only when Multiple STP mode is enabled.

## Example 1

```
nfvis# switch show spanning-tree bpdudetail interface
Global: Flooding
```

Interface	Admin Mode	Oper Mode
gi1/0	Global	STP
gi1/1	Global	Guard
gi1/2	Global	STP
gi1/3	Global	STP
gi1/4	Global	STP
gi1/5	Global	STP
gi1/6	Global	STP
gi1/7	Global	STP
po1	Global	STP
po2	Global	STP
po3	Global	STP
po4	Global	STP

**Example 2**

```
nfvis# switch show spanning-tree summary
```

```
Spanning tree enabled mode stpCompatible
Default port cost method: long
Loopback guard: disabled
```

```
Root ID      Priority 12288
           Address 00:3a:7d:31:42:ac
           Cost   0
           Port   0
           Hello Time 2 sec Max Age 20 sec Forward Delay 25 sec
```

```
Bridge ID   Priority 12288
           Address 00:3a:7d:31:42:ac
           Hello Time 2 sec Max Age 20 sec Forward Delay 25 sec
```

```
Number of topology changes 0 last change occurred 12 08:27 ago
Times: hold 0, topology change 0, notification 0
       hello 2, max age 20, forward delay 25
```

```
Interfaces
Name      State   Prio.Nbr   Cost     Status    Role      PortFast Type  Guard Root
-----
gil/0     enabled 128.1      2000000  disabled  Disable   No    --   disabled
gil/1     enabled 96.2       35000    disabled  Disable   Yes   --   enabled
gil/2     enabled 128.3      2000000  disabled  Disable   No    --   disabled
gil/3     enabled 128.4      2000000  disabled  Disable   No    --   disabled
gil/4     enabled 128.5      2000000  disabled  Disable   No    --   disabled
gil/5     enabled 128.6      2000000  disabled  Disable   No    --   disabled
gil/6     enabled 128.7      2000000  disabled  Disable   No    --   disabled
gil/7     enabled 128.8      2000000  disabled  Disable   No    --   disabled
```

# switch show vlan

To display VLAN information, use the **switch show vlan** command in privileged EXEC mode.

```
switch show vlan {all | tag vlan-id | name vlan-name | private-vlan [tag vlan-id]}
```

Syntax Description		
<b>all</b>		Displays information about all VLANs.
<b>tag</b> <i>vlan-id</i>		Displays information for specified VLAN tag.
<b>name</b> <i>vlan-name</i>		Displays information for specified VLAN name. Valid length is from 1–32 characters.
<b>private-vlan tag</b> <i>vlan-id</i>		Displays information for private VLAN. In <i>vlan-id</i> parameter, specify the primary VLAN that represents the private VLAN to be displayed.
<b>Command Modes</b>	Privileged EXEC (#)	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	3.5.1	This command was introduced.

## Example 1

The following example provides information about all VLANs.

```
nfvis# switch show vlan all
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN
```

Vlan	Name	Tagged Ports	UnTagged Ports	Created by
1	1		gil/0-7, tel/2, tel/4, pol-4	D
20	20	tel/2		S
2350	2350	tel/1	tel/3	S
2351	2351	tel/1	tel/3	S
2352	2352			S
2353	2353			S
2363	2363	tel/2		S

## Example 2

The following example provides information about VLAN 20.

```
nfvis# switch show vlan name 20
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN
```

Vlan	Name	Tagged Ports	UnTagged Ports	Created by
20	20	tel/2		S

**Example 3**

The following example provides information about private VLAN.

```
nfvis# switch show vlan private-vlan
```

Primary	Secondary	Type	Ports
20	1	primary	gi1/0
10	5	isolated	gi1/1