



**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

# CHAPTER 3

## Ethernet Show Commands

---

This chapter describes the Cisco NX-OS Ethernet **show** commands available on Cisco Nexus 5000 Series switches.

■ show interface mac-address

**Send comments to nx5000-docfeedback@cisco.com**

## show interface mac-address

To display the information about the MAC address, use the **show interface mac-address** command.

**show interface [type slot/port] mac-address**

<b>Syntax Description</b>	<b>type slot/port</b>  (Optional) Specifies the interface for which MAC addresses should be displayed. The type can be either ethernet. Specify the appropriate slot or virtual interface group number and port number.						
<b>Command Default</b>	None						
<b>Command Modes</b>	EXEC mode						
<b>Command History</b>	<table border="1"> <thead> <tr> <th><b>Release</b></th><th><b>Modification</b></th></tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td><td>This command was introduced.</td></tr> </tbody> </table>	<b>Release</b>	<b>Modification</b>	4.0(0)N1(1a)	This command was introduced.		
<b>Release</b>	<b>Modification</b>						
4.0(0)N1(1a)	This command was introduced.						
<b>Usage Guidelines</b>	If you do not specify an interface, the system displays all the MAC addresses.						
<b>Examples</b>	<p>This example shows how to display the information on MAC addresses for the entire switch:</p> <pre>switch# show interface mac-address</pre>						
<b>Related Commands</b>	<table border="1"> <thead> <tr> <th><b>Command</b></th><th><b>Description</b></th></tr> </thead> <tbody> <tr> <td><b>mac-address-table static</b></td><td>Adds static entries to the MAC address table or configures a static MAC address with IGMP snooping disabled for that address.</td></tr> <tr> <td><b>show mac-address-table</b></td><td>Displays information on the MAC address table.</td></tr> </tbody> </table>	<b>Command</b>	<b>Description</b>	<b>mac-address-table static</b>	Adds static entries to the MAC address table or configures a static MAC address with IGMP snooping disabled for that address.	<b>show mac-address-table</b>	Displays information on the MAC address table.
<b>Command</b>	<b>Description</b>						
<b>mac-address-table static</b>	Adds static entries to the MAC address table or configures a static MAC address with IGMP snooping disabled for that address.						
<b>show mac-address-table</b>	Displays information on the MAC address table.						

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## 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: <i>portchannel-number.subinterface-number</i>
<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.

<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th><th>Modification</th></tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td><td>This command was introduced.</td></tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				
<b>Examples</b>	<p>This example shows how to display the configuration information of a specified EtherChannel interface:</p> <pre>switch# show interface port-channel 21</pre>				
<b>Related Commands</b>	<table border="1"> <thead> <tr> <th>Command</th><th>Description</th></tr> </thead> <tbody> <tr> <td><b>interface port-channel</b></td><td>Configures an EtherChannel interface.</td></tr> </tbody> </table>	Command	Description	<b>interface port-channel</b>	Configures an EtherChannel interface.
Command	Description				
<b>interface port-channel</b>	Configures an EtherChannel interface.				

---

 show interface private-vlan mapping

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show interface private-vlan mapping

To display information about private VLAN mapping for primary VLAN interfaces, use the **show interface private-vlan mapping** command.

**show interface private-vlan mapping**

---

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

---

**Command Default** None

---

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

---

**Usage Guidelines** Before you can configure private VLANs, you must enable them by using the **feature private-vlan** command. The commands for configuring private VLANs are not visible until you enable private VLANs.

This command displays the mapping information between the primary and secondary VLANs that allows both VLANs to share the VLAN interface of the primary VLAN.

---

**Examples** This example shows how to display information about primary and secondary private VLAN mapping:

```
switch# show interface private-vlan mapping
```

Related Commands	Command	Description
	<b>feature private-vlan</b>	Enables private VLANs.
	<b>show interface switchport</b>	Displays information about the ports, including those in private VLANs.
	<b>show vlan</b>	Displays summary information for all VLANs.
	<b>show vlan private-vlan</b>	Displays information for all private VLANs on the device.

**Send comments to nx5000-docfeedback@cisco.com**

## show interface switchport

To display information about all the switch port interfaces, use the **show interface switchport** command.

**show interface switchport**

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

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display information for all Ethernet interfaces:

```
switch# show interface switchport
```

Related Commands	Command	Description
	<b>switchport access vlan</b>	Sets the access VLAN when the interface is in access mode.

**show interface vlan*****Send comments to nx5000-docfeedback@cisco.com***

## show interface vlan

To display brief descriptive information about specified VLANs, use the **show interface vlan** command.

**show interface vlan *vlan-id* [brief | description | private-vlan mapping]**

<b>Syntax Description</b>	<table border="1"> <tr> <td><b><i>vlan-id</i></b></td><td>Number of the VLAN; the range of valid values is from 1 to 4094.</td></tr> <tr> <td><b>brief</b></td><td>(Optional) Summary information for the specified VLAN.</td></tr> <tr> <td><b>description</b></td><td>(Optional) Description of the specified VLAN.</td></tr> <tr> <td><b>private-vlan mapping</b></td><td>(Optional) Private VLAN mapping information, if any, for the specified VLAN.</td></tr> </table>	<b><i>vlan-id</i></b>	Number of the VLAN; the range of valid values is from 1 to 4094.	<b>brief</b>	(Optional) Summary information for the specified VLAN.	<b>description</b>	(Optional) Description of the specified VLAN.	<b>private-vlan mapping</b>	(Optional) Private VLAN mapping information, if any, for the specified VLAN.
<b><i>vlan-id</i></b>	Number of the VLAN; the range of valid values is from 1 to 4094.								
<b>brief</b>	(Optional) Summary information for the specified VLAN.								
<b>description</b>	(Optional) Description of the specified VLAN.								
<b>private-vlan mapping</b>	(Optional) Private VLAN mapping information, if any, for the specified VLAN.								

**Command Default** None

**Command Modes** EXEC mode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

**Usage Guidelines** You must enable interface VLANs by using the **feature interface-vlan** or the **svi enable** command. The commands for configuring interface VLANs are not visible until you enable this feature.

This command displays descriptive information for the specified VLAN, including private VLANs.

The switch displays output for the **show interface vlan *vlan-id* private-vlan mapping** command only when you specify a primary private VLAN. If you specify a secondary private VLAN, the output is blank.

**Examples** This example shows how to display information about the specified VLAN:

```
switch# show interface vlan 5
```

This example shows how to display a brief description for the specified VLAN:

```
switch# show interface vlan 5 brief
```

This example shows how to display the description for a specified VLAN:

```
switch# show interface vlan 5 description
```

This example shows how to display the private VLAN mapping information, if any, for the VLAN:

```
switch# show interface vlan 5 private-vlan mapping
```

When you specify a primary VLAN, the switch displays all secondary VLANs mapped to that primary VLAN.

**Send comments to nx5000-docfeedback@cisco.com**

This example shows how to display the status of the VLAN:

```
switch# show interface vlan 5 status
```

Related Commands	Command	Description
	<b>show interface switchport</b>	Displays information about the ports, including those in private VLANs.
	<b>show vlan</b>	Displays summary information for all VLANs.
	<b>show vlan private-vlan</b>	Displays summary information for all private VLANs.

■ show ip igmp snooping

**Send comments to nx5000-docfeedback@cisco.com**

## show ip igmp snooping

To display the Internet Group Management Protocol (IGMP) snooping configuration of the switch, use the **show ip igmp snooping** command.

```
show ip igmp snooping [explicit-tracking vlan vlan-id | groups [detail | vlan vlan-id] | mrouter [vlan vlan-id] | querier [vlan vlan-id] | vlan vlan-id]
```

Syntax Description	<b>explicit-tracking</b> (Optional) Displays information about the explicit host-tracking status for IGMPv3 hosts. If you provide this keyword, you must specify a VLAN.
<b>vlan vlan-id</b>	(Optional) Specifies a VLAN. Valid values are 1 to 4094.
<b>groups</b>	(Optional) Displays information for IGMP group address.
<b>detail</b>	(Optional) Displays detailed information for the group.
<b>mrouter</b>	(Optional) Displays information about dynamically detected multicast routers.
<b>querier</b>	(Optional) Displays information about the snooping querier if defined.

<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				

<b>Examples</b>	This example shows how to display the IGMP snooping configuration of the switch: <pre>switch# show ip igmp snooping</pre>
-----------------	--

Related Commands	Command	Description
	<b>ip igmp snooping (EXEC)</b>	Globally enables IGMP snooping. IGMP snooping must be globally enabled in order to be enabled on a VLAN.
	<b>ip igmp snooping (VLAN)</b>	Enables IGMP snooping on the VLAN interface.

**Send comments to nx5000-docfeedback@cisco.com**

## show lacp

To display Link Aggregation Control Protocol (LACP) information, use the **show lacp** command.

```
show lacp { counters | interface ethernet slot/port | neighbor [interface port-channel number] |
            port-channel [interface port-channel number] | system-identifier }
```

### Syntax Description

<b>counters</b>	Displays information about the LACP traffic statistics.
<b>interface ethernet</b> <i>slot/port</i>	Displays LACP information for a specific interface.
<b>neighbor</b> [interface <b>port-channel</b> <i>number</i> ]	Displays information about the LACP neighbor. Optionally provide an EtherChannel number.
<b>port-channel</b> [interface <b>port-channel</b> <i>number</i> ]	Displays information about an EtherChannel. Optionally provide an EtherChannel number.
<b>system-identifier</b>	Displays the LACP system identification. It is a combination of the port priority and the MAC address of the device

### Command Default

None

### Command Modes

EXEC mode

### Command History

	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

### Usage Guidelines

Use the **show lacp** command to troubleshoot problems related to LACP in a network.

### Examples

This example shows how to display the LACP system identification:

```
switch# show lacp system-identifier
```

---

 show mac-address-table aging-time

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show mac-address-table aging-time

To display information about the time-out values for the MAC address table, use the **show mac-address-table aging-time** command.

**show mac-address-table aging-time [vlan *vlan-id*]**

<b>Syntax Description</b>	<b>vlan <i>vlan-id</i></b> (Optional) Displays information for a specific VLAN; the range of valid values is from 1 to 4094.						
<b>Command Default</b>	None						
<b>Command Modes</b>	EXEC mode						
<b>Command History</b>	<table border="1"> <thead> <tr> <th><b>Release</b></th> <th><b>Modification</b></th> </tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	<b>Release</b>	<b>Modification</b>	4.0(0)N1(1a)	This command was introduced.		
<b>Release</b>	<b>Modification</b>						
4.0(0)N1(1a)	This command was introduced.						
<b>Examples</b>	<p>This example shows how to display MAC address aging times:</p> <pre>switch# show mac-address-table aging-time</pre>						
<b>Related Commands</b>	<table border="1"> <thead> <tr> <th><b>Command</b></th> <th><b>Description</b></th> </tr> </thead> <tbody> <tr> <td><b>mac-address-table aging-time</b></td> <td>Configures the aging time for entries in the MAC address table.</td> </tr> <tr> <td><b>show mac-address-table</b></td> <td>Displays information about the MAC address table.</td> </tr> </tbody> </table>	<b>Command</b>	<b>Description</b>	<b>mac-address-table aging-time</b>	Configures the aging time for entries in the MAC address table.	<b>show mac-address-table</b>	Displays information about the MAC address table.
<b>Command</b>	<b>Description</b>						
<b>mac-address-table aging-time</b>	Configures the aging time for entries in the MAC address table.						
<b>show mac-address-table</b>	Displays information about the MAC address table.						

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show mac-address-table count

To display the number of entries currently in the MAC address table, use the **show mac-address-table count** command.

```
show mac-address-table count [address EEEE.EEEE.EEEE] [dynamic | static] [interface {type
slot/port | port-channel number}] [vlan vlan-id]
```

Syntax Description	<b>address EEEE.EEEE.EEEE</b> (Optional) Displays a count of the MAC address table entries for a specific address. <b>dynamic</b> (Optional) Displays a count of the dynamic MAC addresses. <b>static</b> (Optional) Displays a count of the static MAC addresses. <b>interface type slot/port   port-channel number</b> (Optional) Specifies the interface. Use either the type of interface, the slot number, and the port number, or the EtherChannel number. <b>vlan vlan-id</b> (Optional) Displays information for a specific VLAN; the range of valid values is from 1 to 4094.
--------------------	--

<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				

<b>Examples</b>	This example shows how to display the number of dynamic entries currently in the MAC address table:  switch# <b>show mac-address-table count dynamic</b>
-----------------	--

Related Commands	Command	Description
	<b>show mac-address-table</b>	Displays information about the MAC address table.

---

 show mac-address-table notification

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show mac-address-table notification

To display notifications about the MAC address table, use the **show mac-address-table notification** command.

**show mac-address-table notification {mac-move | threshold}**

Syntax Description	<b>mac-move</b> Shows notification messages about MAC addresses that were moved. <b>threshold</b> Shows notification messages sent when the MAC address table threshold was exceeded.
--------------------	--

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display MAC address move notifications:
	switch# <b>show mac-address-table notification mac-move</b>

Related Commands	Command	Description
	<b>show mac-address-table</b>	Displays information about the MAC address table.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show mac-address-table

To display the information about the MAC address table, use the **show mac-address-table** command.

```
show mac-address-table [address mac-address] [dynamic | multicast | static] [interface {type
slot/port | port-channel number}] [vlan vlan-id]
```

Syntax Description	<b>address mac-address</b> (Optional) Displays information about a specific MAC address. <b>dynamic</b> (Optional) Displays information about the dynamic MAC address table entries only. <b>interface type slot/port   port-channel number</b> (Optional) Specifies the interface. Use either the type of interface, the slot number, and the port number, or the EtherChannel number. <b>multicast</b> (Optional) Displays information about the multicast MAC address table entries only. <b>static</b> (Optional) Displays information about the static MAC address table entries only. <b>vlan vlan-id</b> (Optional) Displays information for a specific VLAN; the range of valid values is from 1 to 4094.	
Command Default	None	
Command Modes	EXEC mode	
Command History	<b>Release</b> 4.0(0)N1(1a)	<b>Modification</b> This command was introduced.
Usage Guidelines	The switch maintains static MAC address entries that are saved in its startup configuration across reboots and flushes the dynamic entries.	
Examples	<p>This example shows how to display the information about the entries for the MAC address table:</p> <pre>switch# show mac address-table</pre> <p>This example shows how to display the information about the entries for the MAC address table for a specific MAC address:</p> <pre>switch# show mac address-table address 0018.bad8.3fb0</pre> <p>This example shows how to display the information about the dynamic entries for the MAC address table:</p> <pre>switch# show mac address-table dynamic</pre>	

■ **show mac-address-table**

**Send comments to nx5000-docfeedback@cisco.com**

This example shows how to display the information about the MAC address table for a specific interface:

```
switch# show mac address-table interface ethernet 1/3
```

This example shows how to display the static entries in the MAC address table:

```
switch# show mac address-table static
```

This example shows how to display the entries in the MAC address table for a specific VLAN:

```
switch# show mac address-table vlan 5
```

#### Related Commands

Command	Description
<b>mac address-table static</b>	Adds static entries to the MAC address table or configures a static MAC address with IGMP snooping disabled for that address.
<b>show mac-address-table aging-time</b>	Displays information about the time-out values for the MAC address table.
<b>show mac-address-table count</b>	Displays the number of entries currently in the MAC address table.
<b>show mac-address-table notifications</b>	Displays information about notifications about the MAC address table.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show monitor session

To display information about the SPAN sessions, use the **show monitor session** command.

**show monitor session [session | all [brief] | range range [brief] | status]**

<b>Syntax Description</b>	<table border="0"> <tr> <td><b>session</b></td><td>(Optional) Number of the session; valid values are from 1 to 18.</td></tr> <tr> <td><b>all</b></td><td>(Optional) Displays all sessions.</td></tr> <tr> <td><b>brief</b></td><td>(Optional) Displays a brief summary of the information.</td></tr> <tr> <td><b>range range</b></td><td>(Optional) Displays a range of sessions; valid values are from 1 to 18.</td></tr> <tr> <td><b>status</b></td><td>(Optional) Displays the operational state of all sessions.</td></tr> </table>	<b>session</b>	(Optional) Number of the session; valid values are from 1 to 18.	<b>all</b>	(Optional) Displays all sessions.	<b>brief</b>	(Optional) Displays a brief summary of the information.	<b>range range</b>	(Optional) Displays a range of sessions; valid values are from 1 to 18.	<b>status</b>	(Optional) Displays the operational state of all sessions.
<b>session</b>	(Optional) Number of the session; valid values are from 1 to 18.										
<b>all</b>	(Optional) Displays all sessions.										
<b>brief</b>	(Optional) Displays a brief summary of the information.										
<b>range range</b>	(Optional) Displays a range of sessions; valid values are from 1 to 18.										
<b>status</b>	(Optional) Displays the operational state of all sessions.										

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display information about SPAN session 1:
	switch# <b>show monitor session 1</b>

This example shows how to display a range of SPAN sessions:

```
switch# show monitor session range 1-4
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>monitor session</b>	Displays the contents of the startup configuration file.

■ show port-channel capacity

**Send comments to nx5000-docfeedback@cisco.com**

## show port-channel capacity

To display the total number of EtherChannel interfaces and the number of free or used EtherChannel interfaces, use the **show port-channel capacity** command.

**show port-channel capacity**

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

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display the EtherChannel capacity:

```
switch# show port-channel capacity
```

Related Commands	Command	Description
	<b>port-channel</b>	Configures the load-balancing algorithm for EtherChannels.
	<b>load-balance ethernet</b>	
	<b>show tech-support</b>	Displays Cisco Technical Support information about EtherChannels.
	<b>port-channel</b>	

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show port-channel compatibility-parameters

To display the parameters that must be the same among the member ports in order to join an EtherChannel interface, use the **show port-channel compatibility-parameters** command.

**show port-channel compatibility-parameters**

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

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display the EtherChannel interface parameters:

```
switch# show port-channel compatibility-parameters
```

Related Commands	Command	Description
	<b>port-channel</b>	Configures the load-balancing algorithm for EtherChannels.
	<b>load-balance ethernet</b>	
	<b>show tech-support</b>	Displays Cisco Technical Support information about EtherChannels.
	<b>port-channel</b>	

■ show port-channel database

**Send comments to nx5000-docfeedback@cisco.com**

## show port-channel database

To display the aggregation state for one or more EtherChannel interfaces, use the **show port-channel database** command.

**show port-channel database [interface port-channel number[.subinterface-number]]**

Syntax Description	<b>interface</b> (Optional) Displays information for an EtherChannel interface. <b>port-channel number</b> (Optional) Displays aggregation information for a specific EtherChannel interface. The <i>number</i> range is from 1 to 4096. <b>.subinterface-number</b> (Optional) Subinterface number. Use the EtherChannel number followed by a dot (.) indicator and the subinterface number. The format is <i>portchannel-number.subinterface-number</i> .
--------------------	---

<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				

<b>Examples</b>	This example shows how to display the aggregation state of all EtherChannel interfaces:  switch# <b>show port-channel database</b>
-----------------	--

Related Commands	Command	Description
	<b>port-channel</b>	Configures the load-balancing algorithm for EtherChannels.
	<b>load-balance ethernet</b>	
	<b>show tech-support port-channel</b>	Displays Cisco Technical Support information about EtherChannels.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show port-channel load-balance

To display information about EtherChannel load balancing, use the **show port-channel load-balance** command.

```
show port-channel load-balance [forwarding-path interface port-channel number [dst-ip
    ipv4-addr] [dst-ipv6 ipv6-addr] [dst-mac dst-mac-addr] [l4-dst-port dst-port] [l4-src-port
    src-port] [src-ip ipv4-addr] [src-ipv6 ipv6-addr] [src-mac src-mac-addr]]]
```

Syntax Description					
<b>forwarding-path</b>	(Optional) Identifies the port in the EtherChannel interface that forwards the packet.				
<b>interface</b>	EtherChannel number for the load-balancing forwarding path that you want to display. The range is from 1 to 4096.				
<b>port-channel</b>	.				
	(Optional) Subinterface number separator. Use the EtherChannel number followed by a dot (.) indicator and the subinterface number. The format is <i>portchannel-number.subinterface-number</i> .				
<b>dst-ip</b>	(Optional) Displays the load distribution on the destination IP address.				
<b>ipv4-addr</b>	IPv4 address to specify a source or destination IP address. The format is <i>A.B.C.D</i> .				
<b>dst-ipv6</b>	(Optional) Displays the load distribution on the destination IPv6 address.				
<b>ipv6-addr</b>	IPv6 address to specify a source or destination IP address. The format is <i>A:B::C:D</i> .				
<b>dst-mac</b>	(Optional) Displays the load distribution on the destination MAC address.				
<b>dst-mac-addr</b>	Destination MAC address. The format is <i>AAAA:BBBB:CCCC</i> .				
<b>l4-dst-port</b>	(Optional) Displays the load distribution on the destination port.				
<b>dst-port</b>	Destination port number. The range is from 0 to 65535.				
<b>l4-src-port</b>	(Optional) Displays the load distribution on the source port.				
<b>src-port</b>	Source port number. The range is from 0 to 65535.				
<b>src-ip</b>	(Optional) Displays the load distribution on the source IP address.				
<b>src-ipv6</b>	(Optional) Displays the load distribution on the source IPv6 address.				
<b>src-mac</b>	(Optional) Displays the load distribution on the source MAC address.				
<b>src-mac-addr</b>	source MAC address. The format is <i>AA:BB:CC:DD:EE:FF</i> .				
<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th><th>Modification</th></tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td><td>This command was introduced.</td></tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				

■ **show port-channel load-balance**

**Send comments to nx5000-docfeedback@cisco.com**

## Examples

This example shows how to display the port channel load balance information:

```
switch# show port-channel load-balance
Port Channel Load-Balancing Configuration:
System: source-dest-ip

Port Channel Load-Balancing Addresses Used Per-Protocol:
Non-IP: source-dest-mac
IP: source-dest-ip source-dest-mac

switch#
```

Table 3-1 describes the fields shown in the display:

**Table 3-1 show port-channel load-balance Field Descriptions**

Field	Description
System	The load-balancing method configured on the switch.
Non-IP	The field that will be used to calculate the hash value for non-IP traffic.
IP	The fields used for IPv4 and IPv6 traffic.

## Related Commands

Command	Description
<b>port-channel load-balance ethernet</b>	Configures the load-balancing method among the interfaces in the channel-group bundle.

**Send comments to nx5000-docfeedback@cisco.com**

## show port-channel summary

To display summary information about EtherChannels, use the **show port-channel summary** command.

**show port-channel summary**

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

**Command Default** None

**Command Modes** Global configuration mode  
EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Usage Guidelines** Before you use this command, you must configure an EtherChannel group using the **interface port-channel** command.

**Examples** This example shows how to display summary information about EtherChannels:  

```
switch# show port-channel summary
```

Related Commands	Command	Description
	<b>channel-group</b> (Ethernet)	Assigns and configures a physical interface to an EtherChannel.
	<b>interface port-channel</b>	Creates an EtherChannel interface and enters interface configuration mode.

■ show port-channel traffic

**Send comments to nx5000-docfeedback@cisco.com**

## show port-channel traffic

To display the traffic statistics for EtherChannels, use the **show port-channel traffic** command.

**show port-channel traffic [interface port-channel number[.subinterface-number]]**

<b>Syntax Description</b>	<b>interface</b> (Optional) Displays traffic statistics for a specified interface. <b>port-channel number</b> (Optional) Displays information for a specified EtherChannel. The range is from 1 to 4096. <b>.subinterface-number</b> (Optional) Subinterface number. Use the EtherChannel number followed by a dot (.) indicator and the subinterface number. The format is <i>portchannel-number.subinterface-number</i> .
---------------------------	---

**Command Default** None

**Command Modes** EXEC mode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display the traffic statistics for all EtherChannels:

```
switch# show port-channel traffic
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>port-channel load-balance ethernet</b>	Configures the load-balancing algorithm for EtherChannels.
	<b>show tech-support port-channel</b>	Displays Cisco Technical Support information about EtherChannels.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show port-channel usage

To display the range of used and unused EtherChannel numbers, use the **show port-channel usage** command.

**show port-channel usage**

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

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display the EtherChannel usage information:

```
switch# show port-channel usage
```

Related Commands	Command	Description
	<b>port-channel</b>	Configures the load-balancing algorithm for EtherChannels.
	<b>load-balance ethernet</b>	
	<b>show tech-support</b>	Displays Cisco Technical Support information about EtherChannels.
	<b>port-channel</b>	

**■ show running-config*****Send comments to nx5000-docfeedback@cisco.com***

## show running-config

To display the contents of the currently running configuration file, use the **show running-config** command.

**show running-config [all]**

<b>Syntax Description</b>	<b>all</b>	(Optional) Displays the full operating information including default settings.
---------------------------	------------	--

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display information on the running configuration:
-----------------	---

```
switch# show running-config
```

This example shows how to display detailed information on the running configuration:
--

```
switch# show running-config all
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show startup-config</b>	Displays the contents of the startup configuration file.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show running-config spanning-tree

To display the running configuration for the Spanning Tree Protocol (STP), use the **show running-config spanning-tree** command.

**show running-config spanning-tree [all]**

<b>Syntax Description</b>	<b>all</b>	(Optional) Displays current STP operating information including default settings.
---------------------------	------------	---

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display information on the running STP configuration:
-----------------	---

```
switch# show running-config spanning-tree
```

This example shows how to display detailed information on the running STP configuration:

```
switch# show running-config spanning-tree all
```



Display output differs slightly depending on whether you are running Rapid PVST+ or MST.

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show spanning-tree</b>	Displays information about STP.

■ **show running-config vlan**

**Send comments to nx5000-docfeedback@cisco.com**

## show running-config vlan

To display the running configuration for a specified VLAN, use the **show running-config vlan** command.

**show running-config vlan *vlan-id***

<b>Syntax Description</b>	<i>vlan-id</i>	Number of VLAN or range of VLANs. Valid numbers are 1 to 4096.
<b>Command Default</b>	None	
<b>Command Modes</b>	EXEC mode	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.
<b>Usage Guidelines</b>	This command provides information on the specified VLAN, including private VLANs. The display varies with your configuration. If you have configured the VLAN name, shutdown status, or suspended status, these are also displayed.	
<b>Examples</b>	This example shows how to display the running configuration for VLAN 5: <pre>switch# show running-config vlan 5</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show vlan</b>	Displays information about all the VLANs on the switch.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show spanning-tree

To display information about the Spanning Tree Protocol (STP), use the **show spanning-tree** command.

**show spanning-tree [blockedports | inconsistentports | pathcost method]**

<b>Syntax Description</b>	<b>blockedports</b> (Optional) Displays the alternate ports blocked by STP. <b>inconsistentports</b> (Optional) Displays the ports that are in an inconsistent STP state. <b>pathcost method</b> (Optional) Displays whether short or long path cost method is used. The method differs for Rapid PVST+ (configurable, default is short) and MST (nonconfigurable, operational value is always long).
---------------------------	---

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Usage Guidelines</b>	The STP port type displays only when you have configured the port as either an STP edge port or an STP network port. If you have not configured the STP port type, no port type displays.
-------------------------	---

<b>Examples</b>	This example shows how to display spanning tree information:
-----------------	--

```
switch# show spanning-tree
```

This example shows how to display the blocked ports in spanning tree:

```
switch(config)# show spanning-tree blockedports
```

This example shows how to determine if any ports are in any STP-inconsistent state:

```
switch# show spanning-tree inconsistentports
```

This example shows how to display the path cost method:

```
switch(config)# show spanning-tree pathcost method
```

■ **show spanning-tree**

**Send comments to nx5000-docfeedback@cisco.com**

Table 3-2 describes the fields that are displayed in the output of **show spanning-tree** commands.

**Table 3-2 show spanning-tree Command Output Fields**

Field	Definition
Role	Current port STP role. Valid values are as follows: <ul style="list-style-type: none"> <li>• Desg (designated)</li> <li>• Root</li> <li>• Altn (alternate)</li> <li>• Back (backup)</li> </ul>
Sts	Current port STP state. Valid values are as follows: <ul style="list-style-type: none"> <li>• BLK (blocking)</li> <li>• DIS (disabled)</li> <li>• LRN (learning)</li> <li>• FWD (forwarding)</li> </ul>
Type	Status information. Valid values are as follows: <ul style="list-style-type: none"> <li>• P2p/Shr—The interface is considered as a point-to-point (shared) interface by the spanning tree.</li> <li>• Edge—The port is configured as an STP edge port (either globally using the <b>default</b> command or directly on the interface) and no BPDU has been received.</li> <li>• Network—The port is configured as an STP network port (either globally using the <b>default</b> command or directly on the interface).</li> <li>• *ROOT_Inc, *LOOP_Inc, *PVID_Inc, *BA_Inc, and *TYPE_Inc—The port is in a broken state (BKN*) for an inconsistency. The broken states are Root inconsistent, Loopguard inconsistent, PVID inconsistent, Bridge Assurance inconsistent, or Type inconsistent.</li> </ul>



**Note** Display output differs slightly depending on whether you are running Rapid PVST+ or MST.

#### Related Commands

Command	Description
<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
<b>show spanning-tree brief</b>	Displays brief summary information about STP.
<b>show spanning-tree detail</b>	Displays detailed information about STP.
<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.

***Send comments to nx5000-docfeedback@cisco.com***

Command	Description
<b>show spanning-tree mst</b>	Displays information about MST STP.
<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
<b>show spanning-tree summary</b>	Displays summary information about STP.
<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

■ show spanning-tree active

**Send comments to nx5000-docfeedback@cisco.com**

## show spanning-tree active

To display STP information on STP-active interfaces only, use the **show spanning-tree active** command.

**show spanning-tree active [brief | detail]**

<b>Syntax Description</b>	<b>brief</b> (Optional) Displays a brief summary of STP interface information. <b>detail</b> (Optional) Displays a detailed summary of STP interface information.
---------------------------	--

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display STP information on the STP-active interfaces:
-----------------	---

```
switch# show spanning-tree active
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show spanning-tree</b>	Displays information STP.
	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
	<b>show spanning-tree brief</b>	Displays brief summary information about STP.
	<b>show spanning-tree detail</b>	Displays detailed information about STP.
	<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
	<b>show spanning-tree mst</b>	Displays information about MST STP.
	<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
	<b>show spanning-tree summary</b>	Displays summary information about STP.
	<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show spanning-tree bridge

To display status and configuration of the local bridge, use the **show spanning-tree bridge** command.

**show spanning-tree bridge [address | brief | detail | forward-time | hello-time | id | max-age | priority [system-id] | protocol]**

Syntax Description	address (Optional) Displays the MAC address for the STP local bridge.
brief	(Optional) Displays a brief summary of the status and configuration for the STP bridge.
detail	(Optional) Displays a detailed summary of the status and configuration for the STP bridge.
forward-time	(Optional) Displays the STP forward delay interval for the bridge.
hello-time	(Optional) Displays the STP hello time for the bridge.
id	(Optional) Displays the STP bridge identifier for the bridge.
max-age	(Optional) Displays the STP maximum-aging time for the bridge.
priority	(Optional) Displays the bridge priority for this bridge.
system-id	(Optional) Displays the bridge priority with the system ID extension for this bridge.
protocol	(Optional) Displays whether the Rapid PVST+ or MST protocol is active.

Command Default	None
-----------------	------

Command Modes	EXEC mode
---------------	-----------

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

Examples	This example shows display STP information for the bridge:
	<pre>switch# show spanning-tree bridge</pre>

Related Commands	Command	Description
	<b>show spanning-tree</b>	Displays information STP.
	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
	<b>show spanning-tree brief</b>	Displays brief summary information about STP.

■ show spanning-tree bridge

**Send comments to nx5000-docfeedback@cisco.com**

Command	Description
<b>show spanning-tree detail</b>	Displays detailed information about STP.
<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
<b>show spanning-tree mst</b>	Displays information about MST STP.
<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
<b>show spanning-tree summary</b>	Displays summary information about STP.
<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

**Send comments to nx5000-docfeedback@cisco.com**

## show spanning-tree brief

To display a brief summary of the STP status and configuration on the switch, use the **show spanning-tree brief** command.

**show spanning-tree brief [active]**

<b>Syntax Description</b>	<b>active</b>	(Optional) Displays information about STP active interfaces only.
<b>Command Default</b>	None	
<b>Command Modes</b>	EXEC mode	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.
<b>Examples</b>	This example shows how to display a brief summary of STP information:	
	<pre>switch(config)# show spanning-tree brief</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show spanning-tree</b>	Displays information STP.
	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
	<b>show spanning-tree detail</b>	Displays detailed information about STP.
	<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
	<b>show spanning-tree mst</b>	Displays information about MST STP.
	<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
	<b>show spanning-tree summary</b>	Displays summary information about STP.
	<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

■ show spanning-tree detail

**Send comments to nx5000-docfeedback@cisco.com**

## show spanning-tree detail

To display detailed information on the STP status and configuration on the switch, use the **show spanning-tree detail** command.

**show spanning-tree detail [active]**

<b>Syntax Description</b>	<b>active</b>	(Optional) Displays information about STP active interfaces only.
---------------------------	---------------	---

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display detailed information on the STP configuration:
-----------------	--

```
switch(config)# show spanning-tree detail
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show spanning-tree</b>	Displays information STP.
	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
	<b>show spanning-tree brief</b>	Displays brief summary information about STP.
	<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
	<b>show spanning-tree mst</b>	Displays information about MST STP.
	<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
	<b>show spanning-tree summary</b>	Displays summary information about STP.
	<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show spanning-tree interface

To display information on the STP interface status and configuration of specified interfaces, use the **show spanning-tree interface** command.

```
show spanning-tree interface {interface slot/port | port-channel number} [active | brief | detail]
| brief | active | cost | detail | active | edge | inconsistency | priority | rootcost | state]
```

Syntax Description	<b>interface</b> <i>type slot/port</i>   <b>port-channel</b> <i>number</i>	Specifies the interface. Use either the type of interface and its slot and port number, or the EtherChannel number.
<b>active</b>	(Optional)	Displays information about STP active interfaces only on the specified interfaces.
<b>brief</b>	(Optional)	Displays brief summary of STP information on the specified interfaces.
<b>detail</b>	(Optional)	Displays detailed STP information about the specified interfaces.
<b>cost</b>	(Optional)	Displays the STP path cost for the specified interfaces.
<b>edge</b>	(Optional)	Displays the STP-type edge port information for the specified interfaces.
<b>inconsistency</b>	(Optional)	Displays the port STP inconsistency state for the specified interfaces.
<b>priority</b>	(Optional)	Displays the STP port priority for the specified interfaces.
<b>rootcost</b>	(Optional)	Displays the path cost to the root for specified interfaces.
<b>state</b>		Current port STP state.

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Usage Guidelines** The STP port type displays only when you have configured the port as either an STP edge port or an STP network port. If you have not configured the STP port type, no port type displays.

If you specify an interface that is not running STP, the switch returns an error message.

When you are running MST, this command displays the PVST simulation setting.



**Note** If you are running MST, use the **show spanning-tree mst** command to show more detail on the specified interfaces.

■ **show spanning-tree interface**

**Send comments to nx5000-docfeedback@cisco.com**

## Examples

This example shows how to display STP information on a specified interface:

```
switch(config)# show spanning-tree interface ethernet 1/3
```

This example shows how to display detailed STP information on a specified interface:

```
switch(config)# show spanning-tree interface ethernet 1/3 detail
```

## Related Commands

Command	Description
<b>show spanning-tree</b>	Displays information about STP.
<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
<b>show spanning-tree brief</b>	Displays brief summary information about STP.
<b>show spanning-tree detail</b>	Displays detailed information about STP.
<b>show spanning-tree mst</b>	Displays information about MST STP.
<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
<b>show spanning-tree summary</b>	Displays summary information about STP.
<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show spanning-tree mst

To display information on MST status and configuration, use the **show spanning-tree mst** command.

```
show spanning-tree mst [instance-id [detail | interface {interface slot/port | port-channel number} [detail]]]
show spanning-tree mst [configuration [digest]]
show spanning-tree mst [detail | interface {interface slot/port | port-channel number} } [detail]]
```

Syntax Description	<i>instance-id</i> (Optional) The MST instance range that you want to display. For example, 0 to 3, 5, 7 to 9.  <b>detail</b> (Optional) Displays detailed MST information.  <i>interface slot/port   port-channel number</i> (Optional) Specifies the interface. Use either the type of interface and its slot and port number, or the EtherChannel number.  <b>configuration</b> (Optional) Displays current MST regional information including the VLAN-to-instance mapping of all VLANs.  <b>digest</b> (Optional) Displays information about the MD5 digest.
--------------------	---

Command Default	None
-----------------	------

Command Modes	EXEC mode
---------------	-----------

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

Usage Guidelines	If the switch is not running in STP MST mode when you enter this command, it returns the following message:
------------------	---

ERROR: Switch is not in mst mode

Examples	This example shows how to display STP information about MST instance information for the VLAN ports that are currently active:
----------	--

```
switch# show spanning-tree mst
```

This example shows how to display STP information about a specific MST instance:

```
switch) # show spanning-tree mst 0
```

This example shows how to display detailed STP information about the MST protocol:

```
switch) # show spanning-tree mst detail
```

■ show spanning-tree mst

**Send comments to nx5000-docfeedback@cisco.com**

This example shows how to display STP information about specified MST interfaces:

```
switch) # show spanning-tree mst interface ethernet 8/2
```

This example shows how to display information about the MST configuration:

```
switch) # show spanning-tree mst configuration
```

This example shows how to display the MD5 digest included in the current MST configuration:

```
switch) # show spanning-tree mst configuration digest
```

See [Table 3-2 on page 3-28](#) for descriptions of the fields that are displayed in the output of **show spanning-tree** commands.

Related Commands	Command	Description
	<b>show spanning-tree</b>	Displays information STP.
	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
	<b>show spanning-tree brief</b>	Displays brief summary information about STP.
	<b>show spanning-tree detail</b>	Displays detailed information about STP.
	<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
	<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
	<b>show spanning-tree summary</b>	Displays summary information about STP.
	<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

**Send comments to [nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)**

## show spanning-tree root

To display the status and configuration of the root bridge, use the **show spanning-tree root** command.

```
show spanning-tree root [address | brief | cost | detail | forward-time | hello-time | id | max-age
| port | priority [system-id]]
```

Syntax Description	
<b>address</b>	(Optional) Displays the MAC address for the STP root bridge.
<b>brief</b>	(Optional) Displays a brief summary of the status and configuration for the root bridge.
<b>cost</b>	(Optional) Displays path cost from the root to this bridge.
<b>detail</b>	(Optional) Displays detailed information on the status and configuration for the root bridge.
<b>forward-time</b>	(Optional) Displays the STP forward delay interval for the root bridge.
<b>hello-time</b>	(Optional) Displays the STP hello time for the root bridge.
<b>id</b>	(Optional) Displays the STP bridge identifier for the root bridge.
<b>max-age</b>	(Optional) Displays the STP maximum-aging time for the root bridge.
<b>port</b>	(Optional) Displays which port is the root port.
<b>priority</b>	(Optional) Displays the bridge priority for the root bridge.
<b>system-id</b>	(Optional) Displays the bridge identifier with the system ID extension for the root bridge.

Command Default	None				
Command Modes	EXEC mode				
<hr/>					
Command History	<table border="1"> <thead> <tr> <th>Release</th><th>Modification</th></tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td><td>This command was introduced.</td></tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				

Examples	<p>This example shows how to display information for the root bridge:</p> <pre>switch(config)# show spanning-tree root</pre>								
Related Commands	<table border="1"> <thead> <tr> <th>Command</th><th>Description</th></tr> </thead> <tbody> <tr> <td><b>show spanning-tree</b></td><td>Displays information STP.</td></tr> <tr> <td><b>show spanning-tree active</b></td><td>Displays information about STP active interfaces only.</td></tr> <tr> <td><b>show spanning-tree bridge</b></td><td>Displays bridge ID, timers, and protocol for the local bridge on the switch.</td></tr> </tbody> </table>	Command	Description	<b>show spanning-tree</b>	Displays information STP.	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
Command	Description								
<b>show spanning-tree</b>	Displays information STP.								
<b>show spanning-tree active</b>	Displays information about STP active interfaces only.								
<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.								

■ show spanning-tree root

***Send comments to nx5000-docfeedback@cisco.com***

Command	Description
<b>show spanning-tree brief</b>	Displays a brief summary of STP information.
<b>show spanning-tree detail</b>	Displays detailed information about STP.
<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
<b>show spanning-tree mst</b>	Displays information about MST STP.
<b>show spanning-tree summary</b>	Displays summary information about STP.
<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.

**Send comments to nx5000-docfeedback@cisco.com**

## show spanning-tree summary

To display summary STP information on the switch, use the **show spanning-tree summary** command.

**show spanning-tree summary [totals]**

<b>Syntax Description</b>	<b>totals</b> (Optional) Displays totals only of STP information.																		
<b>Command Default</b>	None																		
<b>Command Modes</b>	EXEC mode																		
<b>Command History</b>	<table border="1"> <thead> <tr> <th><b>Release</b></th><th><b>Modification</b></th></tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td><td>This command was introduced.</td></tr> </tbody> </table>	<b>Release</b>	<b>Modification</b>	4.0(0)N1(1a)	This command was introduced.														
<b>Release</b>	<b>Modification</b>																		
4.0(0)N1(1a)	This command was introduced.																		
<b>Usage Guidelines</b>	The display output for this command differs when you are running Rapid PVST+ or MST.																		
<b>Examples</b>	<p>This example shows how to display a summary of STP information on the switch:</p> <pre>switch(config)# show spanning-tree summary</pre>																		
<b>Related Commands</b>	<table border="1"> <thead> <tr> <th><b>Command</b></th><th><b>Description</b></th></tr> </thead> <tbody> <tr> <td><b>show spanning-tree</b></td><td>Displays information STP.</td></tr> <tr> <td><b>show spanning-tree active</b></td><td>Displays information about STP active interfaces only.</td></tr> <tr> <td><b>show spanning-tree bridge</b></td><td>Displays bridge ID, timers, and protocol for the local bridge on the switch.</td></tr> <tr> <td><b>show spanning-tree detail</b></td><td>Displays detailed information about STP.</td></tr> <tr> <td><b>show spanning-tree interface</b></td><td>Displays STP interface status and configuration of specified interfaces.</td></tr> <tr> <td><b>show spanning-tree mst</b></td><td>Displays information about MST STP.</td></tr> <tr> <td><b>show spanning-tree root</b></td><td>Displays status and configuration of the root bridge for the STP instance to which this switch belongs.</td></tr> <tr> <td><b>show spanning-tree vlan</b></td><td>Displays STP information for specified VLANs.</td></tr> </tbody> </table>	<b>Command</b>	<b>Description</b>	<b>show spanning-tree</b>	Displays information STP.	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.	<b>show spanning-tree detail</b>	Displays detailed information about STP.	<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.	<b>show spanning-tree mst</b>	Displays information about MST STP.	<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.	<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.
<b>Command</b>	<b>Description</b>																		
<b>show spanning-tree</b>	Displays information STP.																		
<b>show spanning-tree active</b>	Displays information about STP active interfaces only.																		
<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.																		
<b>show spanning-tree detail</b>	Displays detailed information about STP.																		
<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.																		
<b>show spanning-tree mst</b>	Displays information about MST STP.																		
<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.																		
<b>show spanning-tree vlan</b>	Displays STP information for specified VLANs.																		

■ show spanning-tree vlan

**Send comments to nx5000-docfeedback@cisco.com**

## show spanning-tree vlan

To display STP information for specified VLANs, use the **show spanning-tree vlan** command.

```
show spanning-tree vlan {vlan-id} [active [brief | detail]]
show spanning-tree vlan {vlan-id} [blockedports]
show spanning-tree vlan {vlan-id} [bridge [address] | brief | detail | forward-time | hello-time |
    id | max-age | priority [system-id] | protocol]
show spanning-tree vlan {vlan-id} [brief [active]]
show spanning-tree vlan {vlan-id} [detail [active]]
show spanning-tree vlan {vlan-id} [inconsistentports]
show spanning-tree vlan {vlan-id} [interface {interface slot/port | port-channel number} [active
    [brief | detail]] | brief [active] | cost | detail [active] | edge | inconsistency | priority | rootcost
    | state]]
show spanning-tree vlan {vlan-id} [root [address | brief | cost | detail | forward-time | hello-time
    | id | max-age | port | priority [system-id]]]
show spanning-tree vlan {vlan-id} [summary]
```

Syntax Description	
<b><i>vlan-id</i></b>	Specifies the VLAN or range of VLANs that you want to display.
<b>active</b>	(Optional) Displays information about STP VLANs and active ports.
<b>brief</b>	(Optional) Displays brief summary of STP information for the specified VLANs.
<b>detail</b>	(Optional) Displays detailed STP information for the specified VLANs.
<b>blockedports</b>	(Optional) Displays the STP alternate ports in the blocked state for the specified VLANs.
<b>bridge</b>	(Optional) Displays the status and configuration of the bridge for the specified VLANs.
<b>address</b>	(Optional) Displays the MAC address for the specified STP bridge for the specified VLANs.
<b>forward-time</b>	(Optional) Displays the STP forward delay interval for the bridge for the specified VLANs.
<b>hello-time</b>	(Optional) Displays the STP hello time for the bridge for the specified VLANs.
<b>id</b>	(Optional) Displays the STP bridge identifier for the specified VLANs.
<b>max-age</b>	(Optional) Displays the STP maximum-aging time for the specified VLANs.
<b>priority</b>	(Optional) Displays the STP priority for the specified VLANs.
<b>system-id</b>	(Optional) Displays the bridge identification with the system ID added for the specified VLANs.
<b>protocol</b>	(Optional) Displays which STP protocol is active on the switch.

**Send comments to nx5000-docfeedback@cisco.com**

<b>inconsistentports</b>	((Optional) Displays the ports that are in an inconsistent STP state for specified VLANs.)
<i>interface slot/port   port-channel number</i>	((Optional) Specifies the interface. Use either the type of interface and its slot and port number, or the EtherChannel number.)
<b>cost</b>	((Optional) Displays the STP path cost for the specified VLANs.)
<b>edge</b>	((Optional) Displays the STP-type edge port information for the specified interface for the specified VLANs.)
<b>inconsistency</b>	((Optional) Displays the STP port inconsistency state for the specified interface for the specified VLANs.)
<b>priority</b>	((Optional) Displays the STP priority for the specified VLANs.)
<b>rootcost</b>	((Optional) Displays the path cost to the root for specified interfaces for the specified VLANs.)
<b>state</b>	Current port STP state. Valid values are blocking, disabled, learning, and forwarding.
<b>port</b>	((Optional) Displays information about the root port for the specified VLANs.)
<b>summary</b>	((Optional) Displays summary STP information on the specified VLANs.)

**Command Default** None

**Command Modes** EXEC mode

**Command History**

<b>Release</b>	<b>Modification</b>
4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display STP information on VLAN 1:

```
switch# show spanning-tree vlan 1
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show spanning-tree</b>	Displays information STP.
	<b>show spanning-tree active</b>	Displays information about STP active interfaces only.
	<b>show spanning-tree bridge</b>	Displays bridge ID, timers, and protocol for the local bridge on the switch.
	<b>show spanning-tree brief</b>	Displays brief summary information about STP.
	<b>show spanning-tree detail</b>	Displays detailed information about STP.

■ show spanning-tree vlan

**Send comments to nx5000-docfeedback@cisco.com**

Command	Description
<b>show spanning-tree interface</b>	Displays STP interface status and configuration of specified interfaces.
<b>show spanning-tree mst</b>	Displays information about MST STP.
<b>show spanning-tree root</b>	Displays status and configuration of the root bridge for the STP instance to which this switch belongs.
<b>show spanning-tree summary</b>	Displays summary information about STP.

**Send comments to nx5000-docfeedback@cisco.com**

## show startup-config

To display the contents of the currently running configuration file, use the **show startup-config** command.

**show startup-config**

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

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Examples** This example shows how to display information from the startup configuration file:

```
switch# show startup-config
```

Related Commands	Command	Description
	<b>show running-config</b>	Displays the contents of the currently running configuration file.

**how tech-support port-channel*****Send comments to nx5000-docfeedback@cisco.com***

## how tech-support port-channel

To display troubleshooting information about EtherChannel interfaces, use the **show tech-support port-channel** command.

**show tech-support port-channel**

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

**Command Default** None

**Command Modes** EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

**Usage Guidelines** The output from the **show tech-support port-channel** command is very long. To better manage this output, you can redirect the output to a file.

**Examples** This example shows how to display Cisco technical support information for EtherChannel interfaces:

```
switch# show tech-support port-channel
```

Related Commands	Command	Description
	<b>port-channel</b>	Configures the load-balancing method among the interfaces in the channel-group bundle.
	<b>load-balance ethernet</b>	
	<b>show port-channel</b>	Displays information on EtherChannel load balancing.
	<b>load-balance</b>	

**Send comments to nx5000-docfeedback@cisco.com**

## show vlan

To display VLAN information, use the **show vlan** command.

**show vlan [brief | name {name} | summary]**

<b>Syntax Description</b>	<b>brief</b> (Optional) Displays only a single line for each VLAN, naming the VLAN, status, and ports. <b>name name</b> (Optional) Displays information about a single VLAN that is identified by VLAN name. <b>summary</b> (Optional) Displays the number of existing VLANs on the switch.
---------------------------	---

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Usage Guidelines</b>	This command displays information for all VLANs, including private VLANs, on the switch. Each access port can belong to only one VLAN. Trunk ports can be on multiple VLANs.
-------------------------	--



Although a port can be associated with a VLAN as an access VLAN, a native VLAN, or one of the trunk allowed ports, only access VLANs are shown under Ports in the display.

If you shut down a VLAN using the **state suspend** or the **state active** command, these values appear in the Status field:

- suspended—VLAN is suspended.
- active—VLAN is active.

If you shut down a VLAN using the **shutdown** command, these values appear in the Status field:

- act/lshut—VLAN status is active but shut down locally.
- sus/lshut—VLAN status is suspended but shut down locally.

If a VLAN is shut down internally, these values appear in the Status field:

- act/ishut—VLAN status is active but shut down internally.
- sus/ishut—VLAN status is suspended but shut down internally.

If a VLAN is shut down locally and internally, the value that is displayed in the Status field is act/ishut or sus/ishut. If a VLAN is shut down locally only, the value that is displayed in the Status field is act/lshut or sus/lshut.

**■ show vlan*****Send comments to nx5000-docfeedback@cisco.com*****Examples**

This example shows how to display information for all VLANs on the switch:

```
switch# show vlan
```

This example shows how to display the VLAN name, status, and associated ports only:

```
switch# show vlan brief
```

This example shows how to display the VLAN information for a specific VLAN by name:

```
switch# show vlan name test
```

This example shows how to display information about the number of VLANs configured on the switch:

```
switch# show vlan summary
```

**Related Commands**

Command	Description
<b>show interface</b>	Displays information about the ports, including those in private VLANs.
<b>switchport</b>	
<b>show vlan private-vlan</b>	Displays private VLAN information.

**Send comments to nx5000-docfeedback@cisco.com**

## show vlan id

To display information and statistics for an individual VLAN or a range of VLANs, use the **show vlan id** command.

**show vlan id {vlan-id}**

<b>Syntax Description</b>	<i>vlan-id</i>	Specifies the VLAN or range of VLANs that you want to display.
---------------------------	----------------	--

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Usage Guidelines</b>	Use this command to display information and statistics on an individual VLAN or a range of VLANs, including private VLANs.
-------------------------	--



You can also display information about individual VLANs using the **show vlan name** command.

<b>Examples</b>	This example shows how to display information for the individual VLAN 5:
	switch# <b>show vlan id 5</b>

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show vlan</b>	Displays information about VLANs on the switch.

■ **show vlan private-vlan**

**Send comments to nx5000-docfeedback@cisco.com**

## show vlan private-vlan

To display private VLAN information, use the **show vlan private-vlan** command.

**show vlan [id {vlan-id}] private-vlan [type]**

<b>Syntax Description</b>	<b>id</b> <i>vlan-id</i> (Optional) Displays private VLAN information for the specified VLAN. <b>type</b> (Optional) Displays the private VLAN type (primary, isolated, or community).
---------------------------	---

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

<b>Command Modes</b>	EXEC mode
----------------------	-----------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

<b>Examples</b>	This example shows how to display information on all private VLANs on the switch:
-----------------	---

```
switch(config)# show vlan private-vlan
```

This example shows how to display information for a specific private VLAN:
--

```
switch(config)# show vlan id 42 private-vlan
```

This example shows how to display information on the types of all private VLANs on the switch:
--

```
switch(config)# show vlan private-vlan type
```

This example shows how to display information on the type for the specified private VLAN:
---

```
switch(config)# show vlan id 42 private-vlan type
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show interface private-vlan mapping</b>	Displays information about the private VLAN mapping between the primary and secondary VLANs so that both VLANs share the same primary VLAN interface.
	<b>show interface switchport</b>	Displays information about the ports, including those in private VLANs.
	<b>show vlan</b>	Displays information about all the VLANs on the switch.