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

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

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

Syntax Description

type slot/port	(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.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

If you do not specify an interface, the system displays all the MAC addresses.

Examples

This example shows how to display the information on MAC addresses for the entire switch:

```
switch# show interface mac-address
```

Related Commands

Command	Description
mac-address-table static	Adds static entries to the MAC address table or configures a static MAC address with IGMP snooping disabled for that address.
show mac-address-table	Displays information on the MAC address table.

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
feature private-vlan	Enables private VLANs.
show interface switchport	Displays information about the ports, including those in private VLANs,
show vlan	Displays summary information for all VLANs.
show vlan private-vlan	Displays information for all private VLANs on the device.

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
switchport access vlan	Sets the access VLAN when the interface is in access mode.

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**]

Syntax Description

vlan-id	Number of the VLAN; the range of valid values is from 1 to 4094.
brief	(Optional) Summary information for the specified VLAN.
description	(Optional) Description of the specified VLAN.
private-vlan mapping	(Optional) Private VLAN mapping information, if any, for the specified VLAN.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
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.

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

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

Related Commands

Command	Description
show interface switchport	Displays information about the ports, including those in private VLANs.
show vlan	Displays summary information for all VLANs.
show vlan private-vlan	Displays summary information for all private VLANs.

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

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

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 IGMP snooping configuration of the switch:

```
switch# show ip igmp snooping
```

Related Commands

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

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

counters	Displays information about the LACP traffic statistics.
interface ethernet *slot/port*	Displays LACP information for a specific interface.
neighbor [**interface port-channel** *number*]	Displays information about the LACP neighbor. Optionally provide an EtherChannel number.
port-channel [**interface port-channel** *number*]	Displays information about an EtherChannel. Optionally provide an EtherChannel number.
system-identifier	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

Release	Modification
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

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*]

Syntax Description

vlan *vlan-id*	(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

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

Examples

This example shows how to display MAC address aging times:

```
switch# show mac-address-table aging-time
```

Related Commands

Command	Description
mac-address-table aging-time	Configures the aging time for entries in the MAC address table.
show mac-address-table	Displays information about the MAC address table.

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

address *EEEE.EEEE.EEEE*	(Optional) Displays a count of the MAC address table entries for a specific address.
dynamic	(Optional) Displays a count of the dynamic MAC addresses.
static	(Optional) Displays a count of the static MAC addresses.
interface *type slot/port* | **port-channel** *number*	(Optional) Specifies the interface. Use either the type of interface, the slot number, and the port number, or the EtherChannel number.
vlan *vlan-id*	(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

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

Examples

This example shows how to display the number of dynamic entries currently in the MAC address table:

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

Related Commands

Command	Description
show mac-address-table	Displays information about the MAC address table.

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

mac-move	Shows notification messages about MAC addresses that were moved.
threshold	Shows notification messages sent when the MAC address table threshold was exceeded.

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 MAC address move notifications:

```
switch# show mac-address-table notification mac-move
```

Related Commands

Command	Description
show mac-address-table	Displays information about the MAC address table.

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

address *mac-address*	(Optional) Displays information about a specific MAC address.
dynamic	(Optional) Displays information about the dynamic MAC address table entries only.
interface *type slot/port* | **port-channel** *number*	(Optional) Specifies the interface. Use either the type of interface, the slot number, and the port number, or the EtherChannel number.
multicast	(Optional) Displays information about the multicast MAC address table entries only.
static	(Optional) Displays information about the static MAC address table entries only.
vlan *vlan-id*	(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

Release	Modification
4.0(0)N1(1a)	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

This example shows how to display the information about the entries for the MAC address table:

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

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

```
switch# show mac address-table address 0018.bad8.3fbd
```

This example shows how to display the information about the dynamic entries for the MAC address table:

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

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

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**]

Syntax Description

session	(Optional) Number of the session; valid values are from 1 to 18.
all	(Optional) Displays all sessions.
brief	(Optional) Displays a brief summary of the information.
range *range*	(Optional) Displays a range of sessions; valid values are from 1 to 18.
status	(Optional) Displays the operational state of all sessions.

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 about SPAN session 1:

```
switch# show monitor session 1
```

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

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

Related Commands

Command	Description
monitor session	Displays the contents of the startup configuration file.

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
Port-channel resources
    768 total    29 used    739 free    3% used
switch#
```

Related Commands

Command	Description
port-channel load-balance ethernet	Configures the load-balancing algorithm for EtherChannels.

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
port-channel load-balance ethernet	Configures the load-balancing algorithm for EtherChannels.

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

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

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 aggregation state of all EtherChannel interfaces:

```
switch# show port-channel database
```

Related Commands

Command	Description
port-channel load-balance ethernet	Configures the load-balancing algorithm for EtherChannels.

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

forwarding-path interface port-channel	(Optional) Identifies the port in the EtherChannel interface that forwards the packet.
number	EtherChannel number for the load-balancing forwarding path that you want to display. The range is from 1 to 4096.
.	(Optional) Subinterface number separator. Use the EtherChannel number followed by a dot (.) indicator and the subinterface number. The format is *portchannel-number.subinterface-number*.
dst-ip	(Optional) Displays the load distribution on the destination IP address.
ipv4-addr	IPv4 address to specify a source or destination IP address. The format is *A.B.C.D*.
dst-ipv6	(Optional) Displays the load distribution on the destination IPv6 address.
ipv6-addr	IPv6 address to specify a source or destination IP address. The format is *A:B::C:D*.
dst-mac	(Optional) Displays the load distribution on the destination MAC address.
dst-mac-addr	Destination MAC address. The format is *AAAA:BBBB:CCCC*.
l4-dst-port	(Optional) Displays the load distribution on the destination port.
dst-port	Destination port number. The range is from 0 to 65535.
l4-src-port	(Optional) Displays the load distribution on the source port.
src-port	Source port number. The range is from 0 to 65535.
src-ip	(Optional) Displays the load distribution on the source IP address.
src-ipv6	(Optional) Displays the load distribution on the source IPv6 address.
src-mac	(Optional) Displays the load distribution on the source MAC address.
src-mac-addr	source MAC address. The format is *AA:BB:CC:DD:EE:FF*.

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 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 fileds used for IPv4 and IPv6 traffic.

Related Commands

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

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
channel-group (Ethernet)	Assigns and configures a physical interface to an EtherChannel.
interface port-channel	Creates an EtherChannel interface and enters interface configuration mode.

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*]]

Syntax Description

interface	(Optional) Displays traffic stattistics for a specified interface.
port-channel *number*	(Optional) Displays information for a specified EtherChannel. The range is from 1 to 4096.
.*subinterface-number*	(Optional) Subinterface number. Use the EtherChannel number followed by a dot (.) indicator and the subinterface number. The format is *portchannel-number***.***subinterface-number*.

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 traffic statistics for all EtherChannels:

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

Related Commands

Command	Description
port-channel load-balance ethernet	Configures the load-balancing algorithm for EtherChannels.

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
port-channel load-balance ethernet	Configures the load-balancing algorithm for EtherChannels.

show running-config

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

show running-config [**all**]

Syntax Description

all	(Optional) Displays the full operating information including default settings.

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 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
```

Related Commands

Command	Description
show startup-config	Displays the contents of the startup configuration file.

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**]

Syntax Description

all	(Optional) Displays current STP operating information including default settings.

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 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
```

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

Related Commands

Command	Description
show spanning-tree	Displays information about STP.

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*

Syntax Description

vlan-id	Number of VLAN or range of VLANs. Valid numbers are 1 to 4096.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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.

Examples

This example shows how to display the running configuration for VLAN 5:

```
switch# show running-config vlan 5
```

Related Commands

Command	Description
show vlan	Displays information about all the VLANs on the switch.

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**]

Syntax Description

blockedports	(Optional) Displays the alternate ports blocked by STP.
inconsistentports	(Optional) Displays the ports that are in an inconsistent STP state.
pathcost method	(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).

Command Default

None

Command Modes

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.

Examples

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
```

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: • Desg (designated) • Root • Altn (alternate) • Back (backup)
Sts	Current port STP state. Valid values are as follows: • BLK (blocking) • DIS (disabled) • LRN (learning) • FWD (forwarding)
Type	Status information. Valid values are as follows: • P2p/Shr—The interface is considered as a point-to-point (shared) interface by the spanning tree. • Edge—The port is configured as an STP edge port (either globally using the **default** command or directly on the interface) and no BPDU has been received. • Network—The port is configured as an STP network port (either globally using the **default** command or directly on the interface). • *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.

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

Related Commands

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

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

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**]

Syntax Description

brief	(Optional) Displays a brief summary of STP interface information.
detail	(Optional) Displays a detailed summary of STP interface information.

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 STP information on the STP-active interfaces:

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

Related Commands

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

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:

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

Related Commands

Command	Description
show spanning-tree	Displays information STP.
show spanning-tree active	Displays information about STP active interfaces only.
show spanning-tree brief	Displays brief summary information about STP.

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

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**]

Syntax Description

active	(Optional) Displays information about STP active interfaces only.

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 a brief summary of STP information:

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

Related Commands

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

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**]

Syntax Description

active	(Optional) Displays information about STP active interfaces only.

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 detailed information on the STP configuration:

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

Related Commands

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

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

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

Command Default

None

Command Modes

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.

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

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

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

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 3-27 for descriptions of the fields that are displayed in the output of **show spanning-tree** commands.

Related Commands

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

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

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

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 the root bridge:

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

Related Commands

Command	Description
show spanning-tree	Displays information STP.
show spanning-tree active	Displays information about STP active interfaces only.
show spanning-tree bridge	Displays bridge ID, timers, and protocol for the local bridge on the switch.

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

show spanning-tree summary

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

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

Syntax Description

totals	(Optional) Displays totals only of STP information.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

The display output for this command differs when you are running Rapid PVST+ or MST.

Examples

This example shows how to display a summary of STP information on the switch:

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

Related Commands

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

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

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

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

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 STP information on VLAN 1:

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

Related Commands

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

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

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
show running-config	Displays the contents of the currently running configuration file.

show vlan

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

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

Syntax Description

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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.

Note 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.

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
show interface switchport	Displays information about the ports, including those in private VLANs.
show vlan private-vlan	Displays private VLAN information.

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*}

Syntax Description

vlan-id	Specifies the VLAN or range of VLANs that you want to display.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

Use this command to display information and statistics on an individual VLAN or a range of VLANs, including private VLANs.

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

Examples

This example shows how to display information for the individual VLAN 5:

```
switch# show vlan id 5
```

Related Commands

Command	Description
show vlan	Displays information about VLANs on the switch.

show vlan private-vlan

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

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

Syntax Description

id *vlan-id*	(Optional) Displays private VLAN information for the specified VLAN.
type	(Optional) Displays the private VLAN type (primary, isolated, or community).

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 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
```

Related Commands

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