P Commands

This chapter describes the Cisco Nexus 1000V commands that begin with the letter P.

packet vlan

To identify a packet VLAN, use the **packet vlan** command. To remove the packet vlan, use the **no** form of this command.

packet vlan {*vlan-number*}

no packet vlan {*vlan-number*}

Syntax Description

vlan-number	Specifies the packet VLAN ID. The range of values is 1 to 3967 and 4048 to 4093.

Defaults

None

Command Modes

SVS domain (config-svs-domain)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to create packet VLAN 261:

```
n1000v# configure terminal
n1000v(config)# svs-domain
n1000v(config-svs-domain)# packet vlan 261
n1000v(config-svs-domain)#
```

This example shows how to remove the packet VLAN 261:

```
n1000v# configure terminal
n1000v(config)# svs-domain
n1000v(config-svs-domain)# no packet vlan 261
n1000v(config-svs-domain)#
```

Related Commands

Command	Description
show running-config	Displays information about the running configuration on the switch.

password strength-check

To enable password-strength checking, use the **password strength-check** command. To disable the checking of password strength, use the **no** form of this command.

password strength-check

no password strength-check

Syntax Description

This command has no arguments or keywords.

Defaults

This feature is enabled by default.

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to enable the checking of password strength:

```
n1000v# config t
n1000v(config)# password strength-check
n1000v(config)#
```

This example shows how to disable the checking of password strength:

```
n1000v# config t
n1000v(config)# no password strength-check
n1000v(config)#
```

Related Commands

Command	Description
show password strength-check	Displays the configuration for checking password strength.
username	Creates a user account.
role name	Names a user role and places you in role configuration mode for that role.

permit (IPv4)

To create an IPv4 access control list (ACL) rule that permits traffic matching its conditions, use the **permit** command. To remove a rule, use the **no** form of this command.

General Syntax

[*sequence-number*] **permit** *protocol source destination* [**dscp** *dscp* | **precedence** *precedence*]

no permit *protocol source destination* [**dscp** *dscp* | **precedence** *precedence*]

no *sequence-number*

Internet Control Message Protocol

[*sequence-number*] **permit icmp** *source destination* [*icmp-message*] [**dscp** *dscp* | **precedence** *precedence*]

Internet Group Management Protocol

[*sequence-number*] **permit igmp** *source destination* [*igmp-message*] [**dscp** *dscp* | **precedence** *precedence*]

Internet Protocol v4

[*sequence-number*] **permit ip** *source destination* [**dscp** *dscp* | **precedence** *precedence*]

Transmission Control Protocol

[*sequence-number*] **permit tcp** *source* [*operator port* [*port*] | **portgroup** *portgroup*] *destination* [*operator port* [*port*] | **portgroup** *portgroup*] [**dscp** *dscp* | **precedence** *precedence*]

User Datagram Protocol

[*sequence-number*] **permit udp** *source* [*operator port* [*port*] | **portgroup** *portgroup*] *destination* [*operator port* [*port*] | **portgroup** *portgroup*] [**dscp** *dscp* | **precedence** *precedence*]

Syntax Description

sequence-number	(Optional) Sequence number of the **permit** command, which causes the device to insert the command in that numbered position in the access list. Sequence numbers maintain the order of rules within an ACL. A sequence number can be any integer between 1 and 4294967295. By default, the first rule in an ACL has a sequence number of 10. If you do not specify a sequence number, the device adds the rule to the end of the ACL and assigns a sequence number that is 10 greater than the sequence number of the preceding rule. Use the **resequence** command to reassign sequence numbers to rules.
protocol	Name or number of the protocol of packets that the rule matches. Valid numbers are from 0 to 255. Valid protocol names are the following keywords: • **icmp**—Specifies that the rule applies to ICMP traffic only. When you use this keyword, the *icmp-message* argument is available, in addition to the keywords that are available for all valid values of the *protocol* argument. • **igmp**—Specifies that the rule applies to IGMP traffic only. When you use this keyword, the *igmp-type* argument is available, in addition to the keywords that are available for all valid values of the *protocol* argument. • **ip**—Specifies that the rule applies to all IPv4 traffic. When you use this keyword, only the other keywords and arguments that apply to all IPv4 protocols are available. They include the following: – **dscp** – **precedence** • **tcp**—Specifies that the rule applies to TCP traffic only. When you use this keyword, the *flags* and *operator* arguments and the **portgroup** and **established** keywords are available, in addition to the keywords that are available for all valid values of the *protocol* argument. • **udp**—Specifies that the rule applies to UDP traffic only. When you use this keyword, the *operator* argument and the **portgroup** keyword are available, in addition to the keywords that are available for all valid values of the *protocol* argument.
source	Source IPv4 addresses that the rule matches. For details about the methods that you can use to specify this argument, see “Source and Destination” in the “Usage Guidelines” section.
destination	Destination IPv4 addresses that the rule matches. For details about the methods that you can use to specify this argument, see “Source and Destination” in the “Usage Guidelines” section.

dscp *dscp*	(Optional) Specifies that the rule matches only those packets with the specified 6-bit differentiated services value in the DSCP field of the IP header. The *dscp* argument can be one of the following numbers or keywords: • 0–63—The decimal equivalent of the 6 bits of the DSCP field. For example, if you specify 10, the rule matches only those packets that have the following bits in the DSCP field: 001010. • **af11**—Assured Forwarding (AF) class 1, low drop probability (001010) • **af12**—AF class 1, medium drop probability (001100) • **af13**—AF class 1, high drop probability (001110) • **af21**—AF class 2, low drop probability (010010) • **af22**—AF class 2, medium drop probability (010100) • **af23**—AF class 2, high drop probability (010110) • **af31**—AF class 3, low drop probability (011010) • **af32**—AF class 3, medium drop probability (011100) • **af33**—AF class 3, high drop probability (011110) • **af41**—AF class 4, low drop probability (100010) • **af42**—AF class 4, medium drop probability (100100) • **af43**—AF class 4, high drop probability (100110) • **cs1**—Class-selector (CS) 1, precedence 1 (001000) • **cs2**—CS2, precedence 2 (010000) • **cs3**—CS3, precedence 3 (011000) • **cs4**—CS4, precedence 4 (100000) • **cs5**—CS5, precedence 5 (101000) • **cs6**—CS6, precedence 6 (110000) • **cs7**—CS7, precedence 7 (111000) • **default**—Default DSCP value (000000) • **if**—Expedited Forwarding (101110)

precedence *precedence*	(Optional) Specifies that the rule matches only packets that have an IP Precedence field with the value specified by the *precedence* argument. The *precedence* argument can be a number or a keyword, as follows: • 0–7—Decimal equivalent of the 3 bits of the IP Precedence field. For example, if you specify 3, the rule matches only packets that have the following bits in the DSCP field: 011. • **critical**—Precedence 5 (101) • **flash**—Precedence 3 (011) • **flash-override**—Precedence 4 (100) • **immediate**—Precedence 2 (010) • **internet**—Precedence 6 (110) • **network**—Precedence 7 (111) • **priority**—Precedence 1 (001) • **routine**—Precedence 0 (000)
icmp-message	(ICMP only: Optional) ICMP message type that the rule matches. This argument can be an integer from 0 to 255 or one of the keywords listed under “ICMP Message Types” in the “Usage Guidelines” section.
igmp-message	(IGMP only: Optional) IGMP message type that the rule matches. The *igmp-message* argument can be the IGMP message number, which is an integer from 0 to 15. It can also be one of the following keywords: • **dvmrp**—Distance Vector Multicast Routing Protocol • **host-query**—Host query • **host-report**—Host report • **pim**—Protocol Independent Multicast • **trace**—Multicast trace

operator port [*port*]	(Optional; TCP and UDP only) Rule matches only packets that are from a source port or sent to a destination port that satisfies the conditions of the *operator* and *port* arguments. Whether these arguments apply to a source port or a destination port depends upon whether you specify them after the *source* argument or after the *destination* argument. The *port* argument can be the name or the number of a TCP or UDP port. Valid numbers are integers from 0 to 65535. For listings of valid port names, see "TCP Port Names" and "UDP Port Names" in the "Usage Guidelines" section. A second *port* argument is required only when the *operator* argument is a range. The *operator* argument must be one of the following keywords: • **eq**—Matches only if the port in the packet is equal to the *port* argument. • **gt**—Matches only if the port in the packet is greater than and not equal to the *port* argument. • **lt**—Matches only if the port in the packet is less than and not equal to the *port* argument. • **neq**—Matches only if the port in the packet is not equal to the *port* argument. • **range**—Requires two *port* arguments and matches only if the port in the packet is equal to or greater than the first *port* argument and equal to or less than the second *port* argument.
flags	(TCP only; Optional) TCP control bit flags that the rule matches. The value of the *flags* argument must be one or more of the following keywords: • **ack** • **fin** • **psh** • **rst** • **syn** • **urg**

Defaults

A newly created IPv4 ACL contains no rules.

If you do not specify a sequence number, the device assigns to the rule a sequence number that is 10 greater than the last rule in the ACL.

Command Modes

IPv4 ACL configuration (config-acl)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

When the device applies an IPv4 ACL to a packet, it evaluates the packet with every rule in the ACL. The device enforces the first rule that has conditions that are satisfied by the packet. When the conditions of more than one rule are satisfied, the device enforces the rule with the lowest sequence number.

Source and Destination

You can specify the *source* and *destination* arguments in one of several ways. In each rule, the method you use to specify one of these arguments does not affect how you specify the other. When you configure a rule, use the following methods to specify the *source* and *destination* arguments:

- Address and network wildcard—You can use an IPv4 address followed by a network wildcard to specify a host or a network as a source or destination. The syntax is as follows:

  ```
  IPv4-address network-wildcard
  ```

  The following example shows how to specify the *source* argument with the IPv4 address and network wildcard for the 192.168.67.0 subnet:

  ```
  n1000v(config-acl)# permit tcp 192.168.67.0 0.0.0.255 any
  ```

- Address and variable-length subnet mask—You can use an IPv4 address followed by a variable-length subnet mask (VLSM) to specify a host or a network as a source or destination. The syntax is as follows:

  ```
  IPv4-address/prefix-len
  ```

  The following example shows how to specify the *source* argument with the IPv4 address and VLSM for the 192.168.67.0 subnet:

  ```
  n1000v(config-acl)# permit udp 192.168.67.0/24 any
  ```

- Host address—You can use the **host** keyword and an IPv4 address to specify a host as a source or destination. The syntax is as follows:

  ```
  host IPv4-address
  ```

  This syntax is equivalent to *IPv4-address*/32 and *IPv4-address* 0.0.0.0.

  The following example shows how to specify the *source* argument with the **host** keyword and the 192.168.67.132 IPv4 address:

  ```
  n1000v(config-acl)# permit icmp host 192.168.67.132 any
  ```

- Any address—You can use the **any** keyword to specify that a source or destination is any IPv4 address. For examples of the use of the **any** keyword, see the examples in this section. Each example shows how to specify a source or destination by using the **any** keyword.

ICMP Message Types

The *icmp-message* argument can be the ICMP message number, which is an integer from 0 to 255. It can also be one of the following keywords:

- **administratively-prohibited**—Administratively prohibited
- **alternate-address**—Alternate address
- **conversion-error**—Datagram conversion
- **dod-host-prohibited**—Host prohibited
- **dod-net-prohibited**—Net prohibited
- **echo**—Echo (ping)
- **echo-reply**—Echo reply

- **general-parameter-problem**—Parameter problem
- **host-isolated**—Host isolated
- **host-precedence-unreachable**—Host unreachable for precedence
- **host-redirect**—Host redirect
- **host-tos-redirect**—Host redirect for ToS
- **host-tos-unreachable**—Host unreachable for ToS
- **host-unknown**—Host unknown
- **host-unreachable**—Host unreachable
- **information-reply**—Information replies
- **information-request**—Information requests
- **mask-reply**—Mask replies
- **mask-request**—Mask requests
- **mobile-redirect**—Mobile host redirect
- **net-redirect**—Network redirect
- **net-tos-redirect**—Net redirect for ToS
- **net-tos-unreachable**—Network unreachable for ToS
- **net-unreachable**—Net unreachable
- **network-unknown**—Network unknown
- **no-room-for-option**—Parameter required but no room
- **option-missing**—Parameter required but not present
- **packet-too-big**—Fragmentation needed and DF set
- **parameter-problem**—All parameter problems
- **port-unreachable**—Port unreachable
- **precedence-unreachable**—Precedence cutoff
- **protocol-unreachable**—Protocol unreachable
- **reassembly-timeout**—Reassembly timeout
- **redirect**—All redirects
- **router-advertisement**—Router discovery advertisements
- **router-solicitation**—Router discovery solicitations
- **source-quench**—Source quenches
- **source-route-failed**—Source route failed
- **time-exceeded**—All time exceeded messages
- **timestamp-reply**—Timestamp replies
- **timestamp-request**—Timestamp requests
- **traceroute**—Traceroute
- **ttl-exceeded**—TTL exceeded
- **unreachable**—All unreachables

TCP Port Names

When you specify the *protocol* argument as **tcp**, the *port* argument can be a TCP port number, which is an integer from 0 to 65535. It can also be one of the following keywords:

bgp—Border Gateway Protocol (179)

chargen—Character generator (19)

cmd—Remote commands (rcmd, 514)

daytime—Daytime (13)

discard—Discard (9)

domain—Domain Name Service (53)

drip—Dynamic Routing Information Protocol (3949)

echo—Echo (7)

exec—Exec (rsh, 512)

finger—Finger (79)

ftp—File Transfer Protocol (21)

ftp-data—FTP data connections (2)

gopher—Gopher (7)

hostname—NIC hostname server (11)

ident—Ident Protocol (113)

irc—Internet Relay Chat (194)

klogin—Kerberos login (543)

kshell—Kerberos shell (544)

login—Login (rlogin, 513)

lpd—Printer service (515)

nntp—Network News Transport Protocol (119)

pim-auto-rp—PIM Auto-RP (496)

pop2—Post Office Protocol v2 (19)

pop3—Post Office Protocol v3 (11)

smtp—Simple Mail Transport Protocol (25)

sunrpc—Sun Remote Procedure Call (111)

tacacs—TAC Access Control System (49)

talk—Talk (517)

telnet—Telnet (23)

time—Time (37)

uucp—UNIX-to-UNIX Copy Program (54)

whois—WHOIS/NICNAME (43)

www—World Wide Web (HTTP, 8)

UDP Port Names

When you specify the *protocol* argument as **udp**, the *port* argument can be a UDP port number, which is an integer from 0 to 65535. It can also be one of the following keywords:

biff—Biff (mail notification, comsat, 512)

bootpc—Bootstrap Protocol (BOOTP) client (68)

bootps—Bootstrap Protocol (BOOTP) server (67)

discard—Discard (9)

dnsix—DNSIX security protocol auditing (195)

domain—Domain Name Service (DNS, 53)

echo—Echo (7)

isakmp—Internet Security Association and Key Management Protocol (5)

mobile-ip—Mobile IP registration (434)

nameserver—IEN116 name service (obsolete, 42)

netbios-dgm—NetBIOS datagram service (138)

netbios-ns—NetBIOS name service (137)

netbios-ss—NetBIOS session service (139)

non500-isakmp—Internet Security Association and Key Management Protocol (45)

ntp—Network Time Protocol (123)

pim-auto-rp—PIM Auto-RP (496)

rip—Routing Information Protocol (router, in.routed, 52)

snmp—Simple Network Management Protocol (161)

snmptrap—SNMP Traps (162)

sunrpc—Sun Remote Procedure Call (111)

syslog—System Logger (514)

tacacs—TAC Access Control System (49)

talk—Talk (517)

tftp—Trivial File Transfer Protocol (69)

time—Time (37)

who—Who service (rwho, 513)

xdmcp—X Display Manager Control Protocol (177)

Examples

This example shows how to configure an IPv4 ACL named acl-lab-01 with rules permitting all TCP and UDP traffic from the 10.23.0.0 and 192.168.37.0 networks to the 10.176.0.0 network:

```
n1000v# config t
n1000v(config)# ip access-list acl-lab-01
n1000v(config-acl)# permit tcp 10.23.0.0/16 10.176.0.0/16
n1000v(config-acl)# permit udp 10.23.0.0/16 10.176.0.0/16
n1000v(config-acl)# permit tcp 192.168.37.0/16 10.176.0.0/16
n1000v(config-acl)# permit udp 192.168.37.0/16 10.176.0.0/16
```

Related Commands

Command	Description
deny (IPv4)	Configures a deny rule in an IPv4 ACL.
ip access-list	Configures an IPv4 ACL.
remark	Configures a remark in an ACL.
show ip access-list	Displays all IPv4 ACLs or one IPv4 ACL.
statistics per-entry	Enables collection of statistics for each entry in an ACL.

permit (MAC)

To create a MAC ACL rule that permits traffic matching its conditions, use the **permit** command. To remove a rule, use the **no** form of this command.

[*sequence-number*] **permit** *source destination* [*protocol*] [**cos** *cos-value*] [**vlan** *vlan-id*]

no permit *source destination* [*protocol*] [**cos** *cos-value*] [**vlan** *vlan-id*]

no *sequence-number*

Syntax Description

sequence-number	(Optional) Sequence number of the **permit** command, which causes the device to insert the command in that numbered position in the access list. Sequence numbers maintain the order of rules within an ACL. A sequence number can be any integer between 1 and 4294967295. By default, the first rule in an ACL has a sequence number of 10. If you do not specify a sequence number, the device adds the rule to the end of the ACL and assigns a sequence number that is 10 greater than the sequence number of the preceding rule. Use the **resequence** command to reassign sequence numbers to rules.
source	Source MAC addresses that the rule matches. For details about the methods that you can use to specify this argument, see “Source and Destination” in the “Usage Guidelines” section.
destination	Destination MAC addresses that the rule matches. For details about the methods that you can use to specify this argument, see “Source and Destination” in the “Usage Guidelines” section.
protocol	(Optional) Protocol number that the rule matches. Valid protocol numbers are 0x0 to 0xffff. For listings of valid protocol names, see “MAC Protocols” in the “Usage Guidelines” section.
cos *cos-value*	(Optional) Specifies that the rule matches only packets with an IEEE 802.1Q header that contains the Class of Service (CoS) value given in the *cos-value* argument. The *cos-value* argument can be an integer from 0 to 7.
vlan *vlan-id*	(Optional) Specifies that the rule matches only packets with an IEEE 802.1Q header that contains the VLAN ID given. The *vlan-id* argument can be an integer from 1 to 4094.

Defaults

None

Command Modes

MAC ACL configuration (config-acl)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

A newly created MAC ACL contains no rules.

If you do not specify a sequence number, the device assigns a sequence number that is 10 greater than the last rule in the ACL.

When the device applies a MAC ACL to a packet, it evaluates the packet with every rule in the ACL. The device enforces the first rule that has conditions that are satisfied by the packet. When the conditions of more than one rule are satisfied, the device enforces the rule with the lowest sequence number.

Source and Destination

You can specify the *source* and *destination* arguments in one of two ways. In each rule, the method you use to specify one of these arguments does not affect how you specify the other. When you configure a rule, use the following methods to specify the *source* and *destination* arguments:

- Address and mask—You can use a MAC address followed by a mask to specify a single address or a group of addresses. The syntax is as follows:

  ```
  MAC-address MAC-mask
  ```

  The following example specifies the *source* argument with the MAC address 00c0.4f03.0a72:

  ```
  n1000v(config-acl)# permit 00c0.4f03.0a72 0000.0000.0000 any
  ```

  The following example specifies the *destination* argument with a MAC address for all hosts with a MAC vendor code of 00603e:

  ```
  n1000v(config-acl)# permit any 0060.3e00.0000 0000.0000.0000
  ```

- Any address—You can use the **any** keyword to specify that a source or destination is any MAC address. For examples of the use of the **any** keyword, see the examples in this section. Each of the examples shows how to specify a source or destination by using the **any** keyword.

MAC Protocols

The *protocol* argument can be the MAC protocol number or a keyword. The protocol number is a four-byte hexadecimal number prefixed with 0x. Valid protocol numbers are from 0x0 to 0xffff. Valid keywords are the following:

- **aarp**—Appletalk ARP (0x80f3)
- **appletalk**—Appletalk (0x809b)
- **decnet-iv**—DECnet Phase IV (0x6003)
- **diagnostic**—DEC Diagnostic Protocol (0x6005)
- **etype-6000**—Ethertype 0x6000 (0x6000)
- **etype-8042**—Ethertype 0x8042 (0x8042)
- **ip**—Internet Protocol v4 (0x0800)
- **lat**—DEC LAT (0x6004)
- **lavc-sca**—DEC LAVC, SCA (0x6007)
- **mop-console**—DEC MOP Remote console (0x6002)
- **mop-dump**—DEC MOP dump (0x6001)

- **vines-echo**—VINES Echo (0x0baf)

Examples

This example shows how to configure a MAC ACL named mac-ip-filter with a rule that permits all IPv4 traffic between two groups of MAC addresses:

```
n1000v# config t
n1000v(config)# mac access-list mac-ip-filter
n1000v(config-mac-acl)# permit 00c0.4f00.0000 0000.00ff.ffff 0060.3e00.0000 0000.00ff.ffff
ip
```

Related Commands

Command	Description
deny (MAC)	Configures a deny rule in a MAC ACL.
mac access-list	Configures a MAC ACL.
remark	Configures a remark in an ACL.
statistics per-entry	Enables collection of statistics for each entry in an ACL.
show mac access-list	Displays all MAC ACLs or one MAC ACL.

permit interface

To specify the interfaces that users assigned to this role can access, use the **permit interface** command. To remove the policy restrictions, use the **no** form of this command.

permit interface *interface-list*

no permit interface *interface-list*

Syntax Description

interface-list	List of one or more interfaces that can be accessed by users with a specified role.

Defaults

None

Command Modes

Interface configuration (config-role-interface)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

Repeat this command to specify all interface lists that users assigned to this role are permitted to access.

Examples

This example shows how to specify ethernet 2/1-4 as interfaces that users assigned to this role can access:

```
n1000v# config t
n1000v(config)# role name network-observer
n1000v(config-role)# interface policy deny
n1000v(config-role-interface)# permit interface ethernet 2/1-4
n1000v(config-role-interface)#
```

This example shows how to remove the policy restrictions for ethernet 2/1-4:

```
n1000v# config t
n1000v(config)# role name network-observer
n1000v(config-role)# interface policy deny
n1000v(config-role-interface)# no permit interface ethernet 2/1-4
n1000v(config-role-interface)#
```

Related Commands

Command	Description
role name	Specifies a user role and enters role configuration mode for the named role.
interface policy deny	Enters the interface configuration mode and denies all interface access for the role.
show role	Displays the role configuration.

ping

To determine the network connectivity to another device using IPv4 addressing, use the **ping** command.

ping [*dest-ipv4-address* | *hostname* | **mulitcast** *multicast-group-address* **interface [ethernet** *slot/port* | **loopback** *number* | **mgmt0** | **port-channel** *channel-number* | **vethernet** *number*]] [**count** {*number* | **unlimited**}] [**df-bit**] [**interval** *seconds*] [**packet-size** *bytes*] [**source** *src-ipv4-address*] [**timeout** *seconds*] [**vrf** *vrf-name*]

Syntax Description

dest-ipv4-address	IPv4 address of destination device. The format is *A.B.C.D*.
hostname	Hostname of destination device. The hostname is case sensitive.
multicast	Multicast ping.
multicast-group-address	Multicast group address. The format is *A.B.C.D*.
interface	Specifies the interface to send the multicast packet.
ethernet *slot/port*	Specifies the slot and port number for the Ethernet interface.
loopback *number*	Specifies a virtual interface number from 0 to 1023.
mgmt0	Specifies the management interface.
port-channel *channel-number*	Specifies a port-channel interface in the range 1 to 4096.
vethernet *number*	Specifies a virtual Ethernet interface in the range 1 to 1048575.
count	(Optional) Specifies the number of transmissions to send.
number	Number of pings. The range is from 1 to 655350. The default is 5.
unlimited	Allows an unlimited number of pings.
df-bit	(Optional) Enables the do-not-fragment bit in the IPv4 header. The default is disabled.
interval *seconds*	(Optional) Specifies the interval in seconds between transmissions. The range is from 0 to 60. The default is 1 second.
packet-size *bytes*	(Optional) Specifies the packet size in bytes to transmit. The range is from 1 to 65468. The default is 56 bytes.
source *scr-ipv4-address*	(Optional) Specifies the source IPv4 address to use. The format is *A.B.C.D*. The default is the IPv4 address for the management interface of the device.
timeout *seconds*	(Optional) Specifies the nonresponse timeout interval in seconds. The range is from 1 to 60. The default is 2 seconds.
vrf *vrf-name*	(Optional) Specifies the virtual routing and forwarding (VRF) name. The default is the default VRF.

Defaults

For the default values, see the “Syntax Description” section for this command.

Command Modes

Any

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

To determine the network connectivity to another device using IPv6 addressing, use the **ping6** command.

Examples

This example shows how to determine connectivity to another device using IPv4 addressing:

```
n1000v# ping 172.28.231.246 vrf management
PING 172.28.231.246 (172.28.231.246): 56 data bytes
Request 0 timed out
64 bytes from 172.28.231.246: icmp_seq=1 ttl=63 time=0.799 ms
64 bytes from 172.28.231.246: icmp_seq=2 ttl=63 time=0.597 ms
64 bytes from 172.28.231.246: icmp_seq=3 ttl=63 time=0.711 ms
64 bytes from 172.28.231.246: icmp_seq=4 ttl=63 time=0.67 ms

--- 172.28.231.246 ping statistics ---
5 packets transmitted, 4 packets received, 20.00% packet loss
round-trip min/avg/max = 0.597/0.694/0.799 ms
```

Related Commands

Command	Description
ping6	Determines connectivity to another device using IPv6 addressing.

pinned-sgid

To pin control or packet VLAN traffic to a specific sub group, use the **pinning** command. To remove the configuration, use the **no** form of this command.

pinned-sgid {**control-vlan-pinned-sgid** | **packet-vlan-pinned-sgid**} *sub-group_id*

no pinned-sgid {**control-vlan-pinned-sgid** | **packet-vlan-pinned-sgid**} *sub-group_id*

Syntax Description

control-vlan-pinned-sgid	Specifies to pin control VLAN traffic to a specific sub group.
packet-vlan-pinned-sgid	Specifies to pin packet VLAN traffic to a specific sub group.
sub-group-id	ID number of the sub group. Range is from 0 to 31.

Defaults

None

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(2)	This command was introduced.

Examples

This example shows how to pin traffic on the control VLAN to a sub group 0:

```
n1000v# config t
n1000v(config)# port-profile SystemProfile1
n1000v(config-port-prof)# pinned-sgid control-vlan-pinned-sgid 3
n1000v(config-port-prof)# show port-profile SystemProfile1
port-profile SystemProfile1
  description:
  type: ethernet
  status: disabled
  capability l3control: no
  pinning control-vlan: 3
  pinning packet-vlan: -
  system vlans: 1
  port-group: SystemProfile1
  max ports: -
  inherit:
  config attributes:
    switchport mode trunk
    switchport trunk allowed vlan 1-5
    no shutdown
  evaluated config attributes:
    switchport mode trunk
```

```
    switchport trunk allowed vlan 1-5
    no shutdown
  assigned interfaces:
n1000v(config-port-prof)# copy running-config startup-config
```

This example shows how to pin traffic on the packet VLAN to sub group 0:

```
n1000v# config t
n1000v(config)# port-profile SystemProfile1
n1000v(config-port-prof)# pinned-sgid packet-vlan-pinned-sgid 0
n1000v(config-port-prof)# show port-profile name SystemProfile1
port-profile SystemProfile1
  description:
  type: ethernet
  status: disabled
  capability l3control: no
  pinning control-vlan: -
  pinning packet-vlan: 0
  system vlans: 1
  port-group:
  max ports: -
  inherit:
  config attributes:
    switchport mode access
    switchport access vlan 1
    switchport trunk native vlan 1
    no shutdown
  evaluated config attributes:
    switchport mode access
    switchport access vlan 1
    switchport trunk native vlan 1
    no shutdown
  assigned interfaces:
n1000v(config-port-prof)# copy running-config startup-config
```

Related Commands

Command	Description
show port-profile [**brief** | **expand-interface** | **usage**] [**name** *profile-name*]	Displays port profile information.
show running-config port-profile *profile-name*	Displays the running configuration of the specified port profile, including the pinning configuration.

pinning id

To pin vEthernet traffic to a specific sub-group, use the **pinning id** command. To remove the configuration, use the no form of this command.

pinning id *sub-group-id*

no pinning id

Syntax Description

sub-group-id	ID number of the sub group. Range is from 0 to 31.

Defaults

None

Command Modes

Interface configuration mode (config-if)
Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(2)	This command was introduced.

Examples

This example shows how to pin vEthernet interfaces to sub-group 3:

```
n1000v(config)# config t
n1000v(config)# interface vethernet 1
n1000v(config-if)# pinning id 0
n1000v(config-if)# show running-config interface vethernet 1
version 4.0(4)SV1(2)

interface Vethernet3
  service-policy type qos input policy1
  pinning id 0

n1000v(config-if)# exit
n1000v(config)# exit
n1000v# module vem 3 execute vemcmd show pinning
  LTL    IfIndex  PC_LTL  VSM_SGID  VEM_SGID  Eff_SGID
   48   1b040000     304         0         0         0

n1000v(config-if)# copy running-config startup-config
```

Related Commands

Command	Description
module vem *module_number* **execute vemcmd show pinning**	Displays the pinning configuration on the specified VEM.
show port-profile [**brief** | **expand-interface** | **usage**] [**name** *profile-name*]	Displays port profile information.
show running-config interface vethernet *interface-number*	Displays the running configuration of the specified vEthernet interface, including the pinning configuration.
show running-config port-profile *profile-name*	Displays the running configuration of the specified port profile, including the pinning configuration.

police

To control traffic rates, use the **police** command. To remove control, use the **no** form of this command.

police {{[**cir**] {*cir* [**bps**|**kbps**|**mbps**|**gbps**] | **percent** *cir-percent*} [[**bc**] {*committed-burst* [**bytes**|**kbytes**|**mbytes**|**ms**|**us**]}] [**pir** {*pir-* [**bps2**|**kbps2**|**mbps2**|**gbps2**] | **percent** *pir-percent*} [[**be**] {*extended-burst* [**bytes2**|**kbytes2**|**mbytes2**|**ms2**|**us2**]}]] [**conform** {**transmit** | **set-prec-transmit** {*precedence-number*} | **set-dscp-transmit** {*dscp-value* | *dscp-number*} | **set-cos-transmit** *cos-value* | **set-discard-class-transmit** *discard-class-value* | **set-qos-transmit** *qos-group-value*} [**exceed** {**drop1** | **set** *exc-from-field exc-to-field* **table cir-markdown-map**}] [**violate** {**drop2** | **set** *vio-from-field vio-to-field* **table2 pir-markdown-map**}]]}}

no police {{[**cir**] {*cir* [**bps**|**kbps**|**mbps**|**gbps**] | **percent** *cir-percent*} [[**bc**] {*committed-burst* [**bytes**|**kbytes**|**mbytes**|**ms**|**us**]}] [**pir** {*pir* [**bps2**|**kbps2**|**mbps2**|**gbps2**] | **percent** *pir-percent*} [[**be**] {*extended-burst* [**bytes2**|**kbytes2**|**mbytes2**|**ms2**|**us2**]}]] [**conform** {**transmit** | **set-prec-transmit** {*precedence-number*} | **set-dscp-transmit** {*dscp-value* | *dscp-number*} | **set-cos-transmit** *cos-value* | **set-discard-class-transmit** *discard-class-value* | **set-qos-transmit** *qos-group-value*} [**exceed** {**drop1** | **set** *exc-from-field exc-to-field* **table cir-markdown-map**}] [**violate** {**drop2** | **set** *vio-from-field vio-to-field* **table2 pir-markdown-map**}]]}}

Syntax Description

cir	(Optional) Specifies CIR (Committed Information Rate).
cir	Committed Information Rate in **bps** or **kbps** or **mbps** or **gbps**.
bps	(Optional) Specifies bits per second.
kbps	(Optional) Specifies kilobits per second.
mbps	(Optional) Specifies megabits per second.
gbps	(Optional) Specifies gigabits per second.
percent	Specifies CIR (Committed Information Rate) percentage.
cir-percent	CIR percentage.
bc	(Optional) Specifies BC (Burst Commit).
committed-burst	Packet burst.
bytes	(Optional) Specifies burst size in bytes.
kbytes	(Optional) Specifies burst size in kilobytes.
mbytes	(Optional) Specifies burst size in megabytes.
ms	(Optional) Specifies burst interval in milliseconds.
us	(Optional) Specifies burst interval in microseconds.
pir	(Optional) Specifies PIR (Peak Information Rate).
pir	Peak Information Rate in **bps** or **kbps** or **mbps** or **gbps**.
bps2	(Optional) Specifies bits per second.
kbps2	(Optional) Specifies kilobits per second.
mbps2	(Optional) Specifies megabits per second.
gbps2	(Optional) Specifies gigabits per second.
be	(Optional) Specifies extended burst.
extended-burst	Extended packet burst.

ms2	(Optional) Specifies burst interval in milliseconds.
us2	(Optional) Specifies burst interval in microseconds.
conform	(Optional) Specifies a conform action.
transmit	Specifies packet transmission.
set-prec-transmit	Specifies a precedence and transmits it.
precedence-number	Precedence number. The following are valid numbers: • 0—Routine precedence • 1—Priority precedence • i2—Immediate precedence • 3—Flash precedence • 4—Flash override precedence • 5—Critical precedence • 6—Internetwork control precedence • 7— Network control precedence
set-dscp-transmit	Specifies a DSCP (Differentiated Services Code Point) and transmits it.
dscp-number	DSCP number or code. The range of valid values is 1 to 63. You can also set DSCP to one of the following codes: • af11—AF11 dscp (001010) • af12—AF12 dscp (001100) • af13—AF13 dscp (001110) • af21—AF21 dscp (010010) • af22—AF22 dscp (010100) • af23—AF23 dscp (010110) • af31—AF31 dscp (011010) • af32—AF32 dscp (011100) • af33—AF33 dscp (011110) • af41—AF41 dscp (100010) • af42—AF42 dscp (100100) • af43—AF43 dscp (100110) • cs1—CS1(precedence 1) dscp (001000) • cs2—CS2(precedence 2) dscp (010000) • cs3—CS3(precedence 3) dscp (011000) • cs4—CS4(precedence 4) dscp (100000) • cs5—CS5(precedence 5) dscp (101000) • cs6—CS6(precedence 6) dscp (110000) • cs7—CS7(precedence 7) dscp (111000) • default—default dscp (000000) • ef—EF dscp (101110)

set-cos-transmit	Specifies a CoS number and transmits it.
cos-value	CoS group number. The range of valid values is 0 to 7.
set-discard-class-transmit	Specifies a discard class number and transmits it.
discard-class-value	The discard class number. The range of valid values is 0 to 63.
set-qos-transmit	Specifies a QoS group number and transmits it.
qos-group-value	QoS group number. The range of valid values is 0 to 126.
exceed	(Optional) Specifies an exceed action.
drop1	Specifies that packets are to be dropped.
set	Specifies a particular value in a table or markdown map.
exc-from-field	.
exc-to-field	.
table	.
cir-markdown-map	.
violate	(Optional) Specifies a violate action.
drop2	.Specifies that packets are to be dropped.
vio-from-field	.
vio-to-field	.
table2	.
pir-markdown-map	.

Defaults

None

Command Modes

Policy map configuration (config-pmap-c-qos)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to control traffic rates:

```
n1000v# configure terminal
n1000v(config)# policy-map pm10
n1000v(config-pmap-qos)# class class-default
n1000v(config-pmap-c-qos)# police 100000 bps 10000 bytes
n1000v(config-pmap-c-qos)#
```

Related Commands

Command	Description
show policy-map	Displays the policy map configuration for all policy maps or for a specified policy map.

policy-map

To create and configure QoS policy maps, use the **policy-map** command. To remove policy maps, use the **no** form of this command.

policy-map {*name* | **type qos** *name*}

no policy-map {*name* | **type qos** *name*}

Syntax Description

name	Policy map name. The range of valid values is 1 to 40.
type qos	Specifies the policy map type as QoS.

Defaults

The policy map does not exist.

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

When you create or configure a policy map, you automatically enter configure policy map mode.

Examples

This example shows how to create policy maps:

```
n1000v# configure terminal
n1000v(config)# policy-map pm20
n1000v(config-pmap-qos)#
```

This example shows how to remove policy maps:

```
n1000v# configure terminal
n1000v(config)# no policy-map pm20
n1000v(config)#
```

Related Commands

Command	Description
show policy-map	Displays policy map information.

policy-map type queuing

To create or modify a QoS class-based weighted fair queueing (CBWFQ) policy map for queueing packets, use the **policy-map type queuing** command. To put a policy map in its default state, use the **no** form of this command.

policy-map {[name | **type queuing** *name*] | **[match-first]** }

no policy-map {[name | **type queuing** *name*] | **[match-first]** }

Syntax Description

name	Policy-map name. Up to 40 alphanumeric characters.
match-first	Take the action for the first class that matches.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

The **policy-map type queueing** command is only supported for uplink ports.

Examples

This example shows how to create a type queueing policy map named my_policymap1:

```
n1000v# config t
n1000v(config)# policy-map type queuing my_policy1
n1000v(config-pmap-que)
```

This example shows how to remove the type queuing policy map named my_policymap1:

```
n1000v# config t
n1000v(config)# no policy-map type queuing my_policy1
```

Related Commands

Command	Description
show policy-map	Displays policy map information.
class type queuing	Assigns a class-based weighted fair queueing (CBWFQ) class to a specified policy map.
show policy-map type queuing	Displays all queuing policy-maps configured on the system.

port-binding

To configure port binding for a port-profile, use the **port-binding** command. To remove the configuration, use the **no** form of this command.

port-binding {static [auto [expand]] | dynamic [auto] | ephemeral}

no port-binding {static [auto [expand]] | dynamic [auto] | ephemeral}

Syntax Description

static	Specifies static port binding. Port is connected when VM is powered on and disconnected when powered off. Maximum port limits are enforced.
dynamic	Specifies dynamic port binding. Port is created when VM is powered on and destroyed when powered off. Maximum port limits are not enforced.
ephemeral	Specifies ephemeral port binding. Port is created when VM is powered on and destroyed when powered off. Max-port limits are not enforced.
auto	Dynamically adjusts the reserved ports at the vCenter Server.
expand	Dynamically increases the reserved ports at the vCenter Server.

Defaults

None

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1) SV1(4)	This command was introduced.

Usage Guidelines

Examples

This example shows how to add static port binding to the vEthernet port-profile named accessprof:

```
n1000v# config t
n1000v(config)# port-profile type accessprof
n1000v(config-port-prof)# port-binding static
n1000v(config-port-prof)#
```

This example shows how to remove static port binding from the vEthernet port-profile named accessprof:

```
n1000v# config t
n1000v(config)# port-profile type accessprof
n1000v(config-port-prof)# no port-binding static
n1000v(config-port-prof)#
```

Related Commands

Command	Description
show port-profile name	Displays the configuration for the named port profile.
port-profile	Creates a port profile.

port-channel load-balance ethernet

To set an algorithm for balancing load on the interfaces in channel-groups, use the **port-channel load-balance ethernet** command. To restore the default value, use the **no** form of this command.

port-channel load-balance ethernet *algorithm* [**module** *module*]

no port-channel load-balance ethernet [*algorithm* [**module** *module*]]

Syntax Description

algorithm	Specify a load-balancing method globally, or for a module:
dest-ip-port	Destination IP address and L4 port
dest-ip-port-vlan	Destination IP address, L4 port, and VLAN
destination-ip-vlan	Destination IP address and VLAN
destination-mac	Destination MAC address
destination-port	Destination L4 port
source-dest-ip-port	Source and destination IP address and L4 port
source-dest-ip-port -vlan	Source and destination IP address, L4 port, and VLAN
source-dest-ip-vlan	Source and destination IP address and VLAN
source-dest-mac	Source and destination MAC address
source-dest-port	Source and destination L4 port
source-ip-port	Source IP address
source-ip-port-vlan	Source IP address, L4, and VLAN
source-ip-vlan	Source IP address and VLAN
source-mac	Source MAC address (the default)
source-port	Source port
source-virtual-port-id	Source virtual port ID
vlan-only	VLAN only
module	(Optional) Specifies a module number (1 to 66) to load balance independently. If you do not specify a module, the specified algorithm is applied to all modules in the device.

Defaults

Source MAC address

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

If you do not specify a module, the algorithm is applied g lobally to all port channels.

If you specify a module, the algorigthm is applied to all port channels in the specified module.

The per module configuration takes precedence over the the algorithm configured globally.

If the traffic on a port channel is going only to a single MAC address and you balance on destination MAC address, the port channel always chooses the same link in that port channel. In this case, using source addresses or IP addresses might result in better load balancing.

Examples

This example shows how to specify source port as the global algorithm for balancing load on the interfaces in channel-groups:

```
n1000v(config)# port-channel load-balance ethernet src-port
n1000v(config)#
```

The following example shows how to configure the source IP load-balancing algorithm for port channels on module 5:

```
n1000v# config t
n1000v(config)# port-channel load-balance ethernet source-ip module 5
```

Related Commands

Command	Description
show port-channel load-balance	Displays information on port-channel load balancing.

port-profile

To create a port profile and enter port-profile configuration mode, use the **port-profile** command. To remove the port profile configuration, use the **no** form of this command.

port-profile word | type {Ethernet | vethernet} word | default {max-port <max-port-number> | port-binding {dynamic [auto] | static [auto] | ephemeral}}

no port-profile *profilename*

Syntax Description

type	(Optional) Specify interface of type ethernet or vethernet.
name	Specify the port profile name. The name can be up to 80 characters in length.
word	Name of the profile (Max Size 80)
default	Configure default settings.
type	Configure type of the profile.
max-ports	Configure default max-ports.
port-binding	Configure the default port-binding behavior of the port-profile.
dynamic	Port is connected when VM is powered on and disconnected when powered off. Max-port limits are enforced.
ephemeral	Port is created when VM is powered on and destroyed when powered off. Max-port limits are not enforced.
static	Port is always connected. Max-port limits are enforced.

Defaults

Default type is vethernet

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4) SV1(2)	Port profiles are not classified as uplink, but are, instead, configured as type Ethernet or type vEthernet.
4.0(4) SV1(1)	This command was introduced.

Usage Guidelines

The port profile name must be unique for each port profile on the Cisco Nexus 1000V.

The port profile type can be Ethernet or vEthernet. Once configured, the type cannot be changed.

Defining a port profile type as Ethernet allows the port profile to be used for physical (Ethernet) ports. In the vCenter Server, the corresponding port group can be selected and assigned to physical ports (PNICs).

If a port profile is configured as an Ethernet type, then it cannot be used to configure VMware virtual ports.

Examples

This example shows how to create an Ethernet type port profile with the name AccessProf:

```
n1000v# configure terminal
n1000v(config)# port-profile type ethernet AccessProf
n1000v(config-port-prof)
```

This example shows how to remove the port profile with the name AccessProf:

```
n1000v# configure terminal
n1000v(config)# no port-profile AccessProf
n1000v(config)
```

Related Commands

Command	Description
show port-profile	Displays the port profile configuration, including assigned roles.
show running-config port-profile [*profile-name*]	Displays the port profile configuration.
port-profile-role	Creates a port profile role for restricting access by users and groups.
vmware port-group [*pg_name*]	Designates a port profile as a VMware port group.
switchport mode {**access** | **trunk**}	Designates whether the interfaces in the port profile are to be used as access or trunking ports.

port-profile default port-binding

To configure a default port binding that will be automatically applied to all new vEthernet port profiles, use the **port-profile default port-binding** command.

To remove the default configuration, use the **no** form of this command.

port-profile default port-binding {**static** | **dynamic** | **ephemeral**}

no port-profile default port-binding [**static** | **dynamic** | **ephemeral**]

Syntax Description

static	Port is created when you assign the port to a port group and persists through the life of the adapter. Port is always connected. Max port limits are enforced.
dynamic	Port is connected when VM is powered on and disconnected when powered off. Max-port limits are enforced.
ephemeral	Port is created when VM is powered on and destroyed when powered off. Max-port limits are not enforced.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1) SV1(4)	This command was introduced.

Usage Guidelines

- Once a vEthernet port profile has been created as a port group on the vCenter Server, you are not allowed to change its port binding type.
- You are not allowed to configure max ports for vEthernet port profiles with ephemeral port binding.
- You are not allowed to configure port binding for Ethernet type port profiles. Port binding is only available for vEthernet port profiles.
- Manual configurations on an interface are purged when the system administrator changes its port profile if either port profile is configured with ephemeral port binding. This occurs regardless of your auto purge setting.

For more information about the svs auto-config-purge command, see the *Cisco Nexus 1000V Interface Configuration Guide, Release 4.2(1)SV1(4).*

Examples

This example shows how to configure ephemeral port binding type as the default for all new vEthernet port profiles created:

```
n1000v# config t
n1000v(config)# port-profile default port-binding ephemeral
n1000v(config)#
```

This example shows how to remove the the default port binding configuration:

```
n1000v# config t
n1000v(config)# no port-profile default port-binding
n1000v(config)#
```

Related Commands

Command	Description
port-profile	Creates a port profile.
show port-profile	Displays the port profile configuration, including roles assigned to them.
feature port-profile-role	Enables support for the restriction of port profile roles.
show port-profile-role	Displays the port profile role configuration, including role names, descriptions, assigned users, and assigned groups.
inherit port-profile	Adds the inherited configuration to the new port profile as a default configuration.
port-profile-role	Creates a port profile role.

port-profile-role

To create a port profile role for restricting access by users and groups, use the **port-profile-role** command. To remove a role, use the **no** form of this command.

port-profile-role *port-profile-role-name*

no port-profile-role *port-profile-role-name*

Syntax Description

port-profile-role-name	Specify the name of the port-profile role.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

You cannot remove a port profile role if it is currently assigned to a port profile. You must first remove the role from the port profile.

Examples

This example shows how to create the adminUser port profile role:

```
n1000v# config t
n1000v(config)# port-profile-role adminUser
n1000v(config-port-prof-role)#
```

This example shows how to remove the adminUser port profile role:

```
n1000v# config t
n1000v(config)# no port-profile-role adminUser
n1000v(config)#
```

This example shows the resulting error message if you try to remove adminUser port profile role when it is still assigned to a port profile:

```
n1000v(config)# no port-profile-role adminUser
ERROR: Cannot remove role because it is assigned to one or more port-profiles
n1000v(config)#
```

Related Commands

Command	Description
show port-profile-role	Displays the port profile role configuration, including role names, descriptions, assigned users, and assigned groups.
show port-profile-role users	Displays available users and groups.
show port-profile	Displays the port profile configuration, including roles assigned to them.
user	Assigns a user to a port profile role.
group	Assigns a group to a port profile role.
assign port-profile-role	Assigns a port profile role to a specific port profile.
feature port-profile-role	Enables support for the restriction of port profile roles.
port-profile	Creates a port profile.

port-security stop learning

To set the Drop on Source Miss (DSM) bit on the port so that it prevents the port from learning new MAC addresses, use the **port-security stop learning** command. To clear the DSM bit, use the **no** form of this command.

port-security stop learning

no port-security stop learning

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any

SupportedUserRoles

network-admin
network-operator

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to set the DSM bit on the port:

```
n1000v# port-security stop learning
n1000v#
```

This example shows how to clear the DSM bit on the port:

```
n1000v# no port-security stop learning
n1000v#
```

Related Commands

Command	Description
show port-security	Displays the secured MAC addresses in the system.
module vem execute	Remotely executes commands on the Virtual Ethernet Module (VEM) from the Cisco Nexus 1000V.
show cdp neighbors	Displays the configuration and capabilities of upstream devices.

private-vlan association

To configure an association between a primary and secondary private VLAN, use the **private-vlan association** command. To remove the association, use the **no** form of this command.

private-vlan association [{**add** | **remove**}] *secondary-vlan-ids*

no private-vlan association [*secondary-vlan-ids*]

Syntax Description

add	Adds a secondary VLAN to a private VLAN list.
remove	Removes a secondary VLAN from a private VLAN list.
secondary-vlan-ids	IDs of the secondary VLANs to be added or removed.

Defaults

None

Command Modes

VLAN (config-vlan)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

You must enable the private VLAN feature (**feature private-vlan** command) before the private VLAN commands are visible in the CLI for configuration.

Examples

This example shows how to associate primary VLAN 202 with secondary VLAN 303:

```
n1000v#configure t
n1000v(config)# vlan 202
n1000v(config-vlan)# private-vlan association add 303
n1000v(config-vlan)#
```

Related Commands

Command	Description
private-vlan primary	Designates the private VLAN as primary.
private-vlan {**community** | **isolated**}	Designates the private VLAN as community or isolated.
show vlan private-vlan	Displays the private VLAN configuration.

private-vlan { community | isolated}

To designate a VLAN as either a community or isolated private VLAN, use the **private-vlan** {**community | isolated**} command. To remove the configuration, use the **no** form of this command.

private-vlan {**community | isolated**}

no private-vlan {**community | isolated**}

Syntax Description

community	Designates the VLAN as a community private VLAN.
isolated	Designates the VLAN as an isolated private VLAN.

Defaults

None

Command Modes

VLAN (config-vlan)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

You must enable the private VLAN feature (**feature private-vlan** command) before the private VLAN commands are visible in the CLI for configuration.

Examples

This example shows how to configure VLAN 303 as a community private VLAN:

```
n1000v#configure t
n1000v(config)# vlan 303
n1000v(config-vlan)# private-vlan community
n1000v(config-vlan)#
```

Related Commands

Command	Description
private-vlan primary	Designates the private VLAN as primary.
private-vlan association	Configures an association between a primary VLAN and a secondary VLAN
show vlan private-vlan	Displays the private VLAN configuration.

private-vlan primary

To designate a private VLAN as a primary VLAN, use the **private-vlan primary** command. To remove the configuration, use the **no** form of this command.

private-vlan primary

no private-vlan primary

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

VLAN (config-vlan)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

You must enable the private VLAN feature (**feature private-vlan** command) before the private VLAN commands are visible in the CLI for configuration.

Examples

This example shows how to configure VLAN 202 as the primary VLAN in a private VLAN:

```
n1000v#configure t
n1000v(config)# vlan 202
n1000v(config-vlan)# private-vlan primary
n1000v(config-vlan)# show vlan private-vlan
Primary Secondary Type Ports
------- --------- --------------- ------------------------------------------
202 primary
n1000v(config-vlan)#
```

Related Commands

Command	Description
private-vlan {**community** | **isolated**}	Designates the private VLAN as community or isolated.
show vlan private-vlan	Displays the private VLAN configuration.
private-vlan association	Associates a primary and secondary private VLAN.

protocol vmware-vim

To enable the VMware VI SDK, use the **protocol vmware-vim** command. To disable the VMware VI SDK, use the **no** form of this command.

protocol vmware-vim

no protocol vmware-vim

Syntax Description

This command has no arguments or keywords.

Defaults

The VMware VI SDK is disabled.

Command Modes

SVS connection configuration (config-svs-conn)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

The VMware VI SDK is published by VMware and it allows clients to talk to VMware vCenter.

You must first create an SVS connection before you enable the VMware VI SDK.

Examples

This example shows how to enable the VMware VI SDK.:

```
n1000v# configure terminal
n1000v(config)# svs connection svs1
n1000v(config-svs-conn)# protocol vmware-vim
n1000v(config-svs-conn)#
```

Related Commands

Command	Description
show svs connection	Displays SVS connection information.

pwd

To view the current directory, use the **pwd** command.

pwd

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any

SupportedUserRoles

network-admin
network-operator

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to view the current directory:

```
n1000v# pwd
bootflash:
n1000v#
```