# M Commands

This chapter describes the Cisco NX-OS security commands that begin with M.

# mac access-list

To create a Media Access Control (MAC) access control list (ACL) or to enter MAC access list configuration mode for a specific ACL, use the **mac access-list** command. To remove a MAC ACL, use the **no** form of this command.

**mac access-list** *access-list-name*

**no mac access-list** *access-list-name*

## Syntax Description

| | |
|---|---|
| *access-list-name* | Name of the MAC ACL, which can be up to 64 alphanumeric, case-sensitive characters long. |

## Command Default

No MAC ACLs are defined by default.

## Command Modes

Global configuration mode

## Command History

| Release | Modification |
|---|---|
| 5.2(1)N1(1) | This command was introduced. |

## Usage Guidelines

Use MAC ACLs to filter non-IP traffic.

When you use the **mac access-list** command, the switch enters MAC access list configuration mode, where you can use the MAC **deny** and **permit** commands to configure rules for the ACL. If the ACL specified does not exist, the switch creates it when you enter this command.

Use the **mac access-group** command to apply the ACL to an interface.

Every MAC ACL has the following implicit rule as its last rule:

```
deny any any protocol
```

This implicit rule ensures that the switch denies the unmatched traffic, regardless of the protocol specified in the Layer 2 header of the traffic.

## Examples

This example shows how to enter MAC access list configuration mode for a MAC ACL named mac-acl-01:

```
switch(config)# mac access-list mac-acl-01
switch(config-acl)#
```

## Related Commands

| Command | Description |
|---|---|
| **deny (MAC)** | Configures a deny rule in a MAC ACL. |
| **mac access-group** | Applies a MAC ACL to an interface. |

| Command | Description |
|---|---|
| **permit (MAC)** | Configures a permit rule in a MAC ACL. |
| **show mac access-lists** | Displays all MAC ACLs or a specific MAC ACL. |

# mac port access-group

To apply a MAC access control list (ACL) to an interface, use the **mac port access-group** command. To remove a MAC ACL from an interface, use the **no** form of this command.

**mac port access-group** *access-list-name*

**no mac port access-group** *access-list-name*

## Syntax Description

| | |
|---|---|
| *access-list-name* | Name of the MAC ACL, which can be up to 64 alphanumeric, case-sensitive characters long. |

## Command Default

None

## Command Modes

Interface configuration mode
Virtual Ethernet interface configuration mode

## Command History

| Release | Modification |
|---|---|
| 5.2(1)N1(1) | This command was introduced. |

## Usage Guidelines

By default, no MAC ACLs are applied to an interface.

MAC ACLs apply to non-IP traffic.

You can use the **mac port access-group** command to apply a MAC ACL as a port ACL to the following interface types:

- Layer 2 interfaces
- Layer 2 EtherChannel interfaces
- Virtual Ethernet interfaces

You can also apply a MAC ACL as a VLAN ACL. For more information, see the **match** command.

The switch applies MAC ACLs only to inbound traffic. When the switch applies a MAC ACL, the switch checks packets against the rules in the ACL. If the first matching rule permits the packet, the switch continues to process the packet. If the first matching rule denies the packet, the switch drops the packet and returns an ICMP host-unreachable message.

If you delete the specified ACL from the switch without removing the ACL from an interface, the deleted ACL does not affect traffic on the interface.

## Examples

This example shows how to apply a MAC ACL named mac-acl-01 to Ethernet interface 1/2:

```
switch(config)# interface ethernet 1/2
switch(config-if)# mac port access-group mac-acl-01
switch(config-if)#
```

This example shows how to remove a MAC ACL named mac-acl-01 from Ethernet interface 1/2:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no mac port access-group mac-acl-01
switch(config-if)#
```

This example shows how to apply a MAC ACL named mac-acl-03 to a specific virtual Ethernet interface:

```
switch# configure terminal
switch(config)# interface vethernet 1
switch(config-if)# mac port access-group mac-acl-03
switch(config-if)#
```

## Related Commands

| Command | Description |
|---|---|
| **interface vethernet** | Configures a virtual Ethernet interface. |
| **mac access-list** | Configures a MAC ACL. |
| **show access-lists** | Displays all ACLs. |
| **show mac access-lists** | Shows either a specific MAC ACL or all MAC ACLs. |
| **show running-config interface** | Shows the running configuration of all interfaces or of a specific interface. |

# match

To specify an access control list (ACL) for traffic filtering in a VLAN access map, use the **match** command. To remove a **match** command from a VLAN access map, use the **no** form of this command.

**match** {**ip** | **ipv6** | **mac**} **address** *access-list-name*

**no match** {**ip** | **ipv6** | **mac**} **address** *access-list-name*

## Syntax Description

| | |
|---|---|
| **ip** | Specifies an IPv4 ACL. |
| **ipv6** | Specifies an IPv6 ACL |
| **mac** | Specifies a MAC ACL. |
| **address** *access-list-name* | Specifies the IPv4, IPv6, or MAC address and the access list name. The name can be up to 64 alphanumeric, case-sensitive characters long. |

## Command Default

By default, the switch classifies traffic and applies IPv4 ACLs to IPv4 traffic and MAC ACLs to all other traffic.

## Command Modes

VLAN access-map configuration mode

## Command History

| Release | Modification |
|---|---|
| 5.2(1)N1(1) | This command was introduced. |

## Usage Guidelines

You can specify only one **match** command per access map.

## Examples

This example shows how to create a VLAN access map named vlan-map-01, assign an IPv4 ACL named ip-acl-01 to the map, specify that the switch forwards packets matching the ACL, and enable statistics for traffic matching the map:

```
switch(config)# vlan access-map vlan-map-01
switch(config-access-map)# match ip address ip-acl-01
switch(config-access-map)# action forward
switch(config-access-map)# statistics
```

## Related Commands

| Command | Description |
|---|---|
| **action** | Specifies an action for traffic filtering in a VLAN access map. |
| **show vlan access-map** | Displays all VLAN access maps or a VLAN access map. |
| **show vlan filter** | Displays information about how a VLAN access map is applied. |
| **vlan access-map** | Configures a VLAN access map. |
| **vlan filter** | Applies a VLAN access map to one or more VLANs. |