M Commands

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

mac access-list

To create a MAC ACL, use the **mac access-list** command. To remove the MAC ACL, use the **no** form of this command.

mac access-list *name*

no mac access-list *name*

Syntax Description

name	List name. The range of valid values is 1 to 64.

Defaults

The MAC ACL does not exist.

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 create a MAC ACL:

```
n1000v# configure terminal
n1000v(config)# mac access-list aL1
n1000v(config)#
```

Related Commands

Command	Description
show access-list	Displays access list information.

mac address-table aging-time

To configure the aging time for entries in the Layer 2 table, use the **mac address-table aging-time** command. To return to the default settings, use the **no** form of this command.

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

no mac address-table aging-time [**vlan** *vlan-id*]

Syntax Description

seconds	Aging time for MAC table entries for Layer 2. The range is from 120 to 918000 seconds. The default is 1800 seconds. Entering 0 disables the aging time.
vlan *vlan-id*	(Optional) Specifies the VLAN to apply the changed aging time.

Defaults

1800 seconds

Command Modes

Global Configuration (config)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

Enter **0** seconds to disable the aging process.

The age value may be rounded off to the nearest multiple of 5 seconds. If the system rounds the value to a different value from that specified by the user (from the rounding process), the system returns an informational message.

When you use this command in the global configuration mode, the age values of all VLANs for which a configuration has not been specified are modified and those VLANs with specifically modified aging times are not modified. When you use the **no** form of this command without the VLAN parameter, only those VLANs that have not been specifically configured for the aging time reset to the default value. Those VLANs with specifically modified aging times are not modified.

When you use this command and specify a VLAN, the aging time for only the specified VLAN is modified. When you use the **no** form of this command and specify a VLAN, the aging time for the VLAN is returned to the current *global* configuration for the aging time, which may or may not be the default value of 300 seconds depending if the global configuration of the device for aging time has been changed.

Aging time is counted from the last time that the switch detected the MAC address.

Examples

This example shows how to change the length of time an entry remains in the MAC address table to 500 seconds for the entire device:

```
n1000v(config)# mac address-table aging-time 500
n1000v(config)#
```

Related Commands

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

mac address-table static

To configure a static entry for the Layer 2 MAC address table, use the **mac address-table static** command. To delete the static entry, use the **no** form of this command.

mac address-table static *mac-address* **vlan** *vlan-id* {[**drop** | **interface** {*type slot/port* | **port-channel** *number*]}

no mac address-table static {**address** *mac_addr*} {**vlan** *vlan-id*}

Syntax Description

mac-address	Specifies the MAC address to add to the table. Use the format XXXX.XXXX.XXXX.
vlan *vlan-id*	Specifies the VLAN to apply static MAC address; valid values are from 1 to 4094.
drop	Drops all traffic that is received from and going to the configured MAC address in the specified VLAN.
type slot/port	(Optional) Specifies the interface. Use the type of interface, the slot number, and the port number.
port-channel *number*	(Optional) Specifies the interface. Use the port-channel number.

Defaults

None

Command Modes

Global Configuration (config)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

You cannot apply the **mac address-table static** *mac-address* **vlan** *vlan-id* **drop** command to a multicast MAC address.

The output interface specified cannot be a VLAN interface or a Switched Virtual Interface (SVI).

Use the **no** form to remove entries that are profiled by the combination of specified entry information.

Examples

This example shows how to add a static entry to the MAC address table:

```
n1000v(config)# mac address-table static 0050.3e8d.6400 vlan 3 interface ethernet 2/1
n1000v(config)#
```

Related Commands

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

mac port access-group

To enable access control for port groups, use the **mac port access-group** command. To disable access control for port groups, use the **no** form of this command.

mac port access-group *name* {**in** | **out**}

no mac port access-group *name* {**in** | **out**}

Syntax Description

name	Group name. The range of valid values is 1 to 64.
in	Specifies inbound traffic.
out	Specifies outbound traffic.

Defaults

Access control for packets is not specified.

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Examples

This example shows how to enable access control for port groups:

```
n1000v# configure terminal
n1000v(config)# port-profile 1
n1000v(config-port-prof)# mac port access-group groupOne in
n1000v(config-port-prof)#
```

Related Commands

Command	Description
show mac	Displays MAC information.

match (ACL)

To define ACL matching criteria, use the **match** command. To remove matching criteria, use the **no** form of this command.

match {{**access-group name** *name*} | {[**not**] **cos** *cos-list*} | {[**not**] **dscp** {*dscp-list* | *dscp-enum*}**+**} | {[**not**] **precedence** {*precedence-list* | *prec-enum*}**+**} | {[**not**] **discard-class** *discard-class-list*} | {[**not**] **qos-group** *qos-group-list*} | {[**not**] **class-map** *cmap-name*} | {[**not**] **packet length** *len-list*} | {[**not**] **ip rtp** *port-list*}}

no match {{**access-group name** *acl-name*} | {[**not**] **cos** *cos-list*} | {[**not**] **dscp** {*dscp-list* | *dscp-enum*}**+**} | {[**not**] **precedence** {*precedence-list* | *prec-enum*}**+**} | {[**not**] **discard-class** *discard-class-list*} | {[**not**] **qos-group** *qos-group-list*} | {[**not**] **class-map** *cmap-name*} | {[**not**] **packet length** *len-list*} | {[**not**] **ip rtp** *port-list*}}

Syntax Description

access-group	Specifies the access group.
name	Specifies the ACL name.
name	ACL name. The range of valid values is 1 to 64.
not	(Optional) Negates the match result.
cos	IEEE 802.1Q CoS (Class of Service).
cos-list	List of CoS values. The range of valid values is 0 to 7.
dscp	DSCP in IP(v4) and IPv6 packets.
dscp-list	List of DSCP values.
dscp-enum	.
precedence	Precedence in IP(v4) and IPv6 packets.
precedence-list	List of precedence values.
prec-enum	.
discard-class *discard-class-list*	Discard class + List of discard-class values.
qos-group *qos-group-list*	Qos-group + List of qos-group values.
class-map *cmap-name*	Class map + Match class-map name.
packet	Packet.
length	Length of IP datagram.
len-list	list of IP packet length.
ip	IP.
rtp	Real Time Protocol.
port-list	UDP port list that are using RTP.

Defaults

None

Command Modes Class map configuration (config-cmap-qos

SupportedUserRoles network-admin

Command History

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

Usage Guidelines

Examples This example shows how to configure a class-map match criteria:

```
n1000v(config)# class-map cl_map1
n1000v(config-cmap-qos)# match access-group name ac_gr1
n1000v(config-cmap-qos)#
```

This example shows how to remove the class-map match criteria:

```
n1000v(config)# class-map cl_map1
n1000v(config-cmap-qos)# no match access-group name ac_gr1
n1000v(config-cmap-qos)#
```

Related Commands

Command	Description
show class map	Displays class map information.

match ip (NetFlow)

To define IP matching criteria for a NetFlow flow record, use the **match ip** command. To remove the matching criteria, use the **no** form of this command.

match ip {**protocol** | **tos**}

no match ip {**protocol** | **tos**}

Syntax Description

protocol	Protocol.
tos	Type of service.

Defaults

None

Command Modes

Flow Record Configuration (config-flow-record)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

Examples

This example shows how to configure IP matching criteria for a NetFlow flow record and then display the result:

```
n1000v# config t
n1000v(config)# flow record RecordTest
n1000v(config-flow-record)# match ip protocol
n1000v(config-flow-record)# show flow record
Flow record RecordTest:
    No. of users: 0
    Template ID: 0
    Fields:
        match ip protocol
        match interface input
        match interface output
        match flow direction
doc-n1000v(config-flow-record)#
```

This example shows how to remove the IP matching criteria for a NetFlow flow record a and then display the result:

```
n1000v# config t
n1000v(config)# flow record RecordTest
```

```
n1000v(config-flow-record)# no match ip protocol
n1000v(config-flow-record)# show flow record
Flow record RecordTest:
    No. of users: 0
    Template ID: 0
    Fields:
        match interface input
        match interface output
        match flow direction
doc-n1000v(config-flow-record)#
```

Related Commands

Command	Description
show flow record [*name*]	Displays a NetFlow flow record configuration.
match ipv4	Defines IPv4 matching criteria for a NetFlow flow record
match transport	Defines transport matching criteria for a NetFlow flow record

match ipv4 (NetFlow)

To define IPv4 matching criteria for a NetFlow flow record, use the **match ipv4** command. To remove the matching criteria, use the **no** form of this command.

match ipv4 {**source** | **destination**} **address**

no match ipv4 {**source** | **destination**} **address**

Syntax Description

source	Source Address.
destination	Destination Address.
address	Address.

Defaults

None

Command Modes

Flow Record Configuration (config-flow-record)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

Examples

This example shows how to configure IPv4 matching criteria for a NetFlow flow record and then display the result:

```
n1000v# config t
n1000v(config)# flow record RecordTest
n1000v(config-flow-record)# match ipv4 destination address
n1000v(config-flow-record)# show flow record
Flow record RecordTest:
    Description: Ipv4flow
    No. of users: 0
    Template ID: 0
    Fields:
        match ipv4 destination address
        match interface input
        match interface output
        match flow direction
        collect counter packets
n1000v(config-flow-record)#
```

This example shows how to remove the IPv4 matching criteria for a NetFlow flow record a and then display the result:

```
n1000v# config t
n1000v(config)# flow record RecordTest
n1000v(config-flow-record)# no match ipv4 destination address
n1000v(config-flow-record)# show flow record
Flow record RecordTest:
    No. of users: 0
    Template ID: 0
    Fields:
        match interface input
        match interface output
        match flow direction
doc-n1000v(config-flow-record)#
```

Related Commands

Command	Description
show flow record [*name*]	Displays a NetFlow flow record configuration.
match ip	Defines IP matching criteria for a NetFlow flow record
match transport	Defines transport matching criteria for a NetFlow flow record

match transport (NetFlow)

To define transport matching criteria for a NetFlow flow record, use the **match transport** command. To remove the matching criteria, use the **no** form of this command.

match transport {**destination-port** | **source-port**}

no match transport {**destination-port** | **source-port**}

Syntax Description

destination-port	Transport destination port.
source-port	Transport source port.

Defaults

None

Command Modes

Flow Record Configuration (config-flow-record)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

Examples

This example shows how to configure transport matching criteria for a NetFlow flow record and then display the result:

```
n1000v# config t
n1000v(config)# flow record RecordTest
n1000v(config-flow-record)# match transport destination-port
n1000v(config-flow-record)# show flow record
Flow record RecordTest:
    Description: Ipv4flow
    No. of users: 0
    Template ID: 0
    Fields:
        match ipv4 destination-port
        match interface input
        match interface output
        match flow direction
        collect counter packets
n1000v(config-flow-record)#
```

This example shows how to remove the transport matching criteria for a NetFlow flow record a and then display the result:

```
n1000v# config t
n1000v(config)# flow record RecordTest
n1000v(config-flow-record)# no match transport destination-port
n1000v(config-flow-record)# show flow record
Flow record RecordTest:
    No. of users: 0
    Template ID: 0
    Fields:
        match interface input
        match interface output
        match flow direction
doc-n1000v(config-flow-record)#
```

Related Commands

Command	Description
show flow record [*name*]	Displays a NetFlow flow record configuration.
match ip	Defines IP matching criteria for a NetFlow flow record
match ipv4	Defines IPv4 matching criteria for a NetFlow flow record

media

To specify the media type of a VLAN as Ethernet, use the **media** command. To remove the type, use the **no** form of this command.

media ethernet

no media

Syntax Description

ethernet	Specifies Ethernet media type.

Defaults

None

Command Modes

VLAN configuration (config-vlan)

SupportedUserRoles

network-admin

Command History

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

Examples

This example shows how to configure media type:

```
n1000v# configure terminal
n1000v(config)# media ethernet
n1000v(config)#
```

Related Commands

Command	Description
show vlan	Displays VLAN information.

mkdir

To create a new directory, use the **mkdir** command.

mkdir {bootflash: | debug: | volatile:}

Syntax Description

bootflash:	Specifies bootflash as the directory name.
debug:	Specifies debug as the directory name.
volatile:	Specifies volatile as the directory name.

Defaults

None

Command Modes

EXEC

SupportedUserRoles

network-admin

Command History

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

Examples

This example shows how to create the bootflash: directory:

```
n1000v# mkdir bootflash:
```

Related Commands

Command	Description
cd	Changes the current working directory.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

module vem

To execute commands on the VEM module, use the **module vem** command.

module vem *module-number* **execute** *line* [*line*]

Syntax Description

module-number	Specifies the module number. The range is 3 to 66.
execute	Specifies the command to execute on the VEM.
line	The name of the command to be remotely executed.

Defaults

None

Command Modes

EXEC

SupportedUserRoles

network-admin

Command History

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

Examples

This example shows how to execute the **show port-profile** command remotely on the VEM module:

```
n1000v# module vem 3 execute vemcmd show
```

Related Commands

Command	Description
show module vem	Displays Virtual Ethernet Module information.

monitor session

To enter the Monitor Configuration mode for configuring an Ethernet switch port analyzer (SPAN) session for analyzing traffic between ports, use the monitor session command.

To disable monitoring a SPAN session(s), use the no form of this command.

monitor session {*session-number* [**shut | type erspan-source**] **| all shut**}

no monitor session {*session-number* [**shut | type erspan-source**] **| all shut**}

Syntax Description

session-number	Specifies the session number for monitoring a switched port. SPAN sessions are numbered from 1 to 64.
shut	(Optional) Shuts the selected session.
type	(Optional) Specifies a session type.
erspan-source	(Optional) Creates an erspan source session
all	Specify all sessions for monitoring a switched port.

Defaults

None

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 enter the Monitor Configuration mode for configuring SPAN session number 2 for analyzing traffic between ports:

```
n1000v# configuration t
n1000v(config)# monitor session 2
n1000v(config-monitor)#
```

This example shows how to remove the configuration for SPAN session 2 for analyzing traffic between ports:

```
n1000v# configuration t
n1000v(config)# no monitor session 2
n1000v(config)#
```

Related Commands

Command	Description
show monitor	Displays Ethernet SPAN information.

move

To move a file from one directory to another, use the **move** command.

move [*filesystem*:[*//module/*][*directory/*] | *directory/*]*source-filename*
{{*filesystem*:[*//module/*][*directory/*] | *directory/*}[*destination-filename*] | *target-filename*}

Syntax Description

filesystem:	(Optional) Name of a file system. The name is case sensitive.
//module/	(Optional) Identifier for a supervisor module. Valid values are **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**. The identifiers are case sensitive.
directory/	(Optional) Name of a directory. The name is case sensitive.
source-filename	Name of the file to move. The name is case sensitive.
destination-filename	(Optional) Name of the destination file. The name is alphanumeric, case sensitive, and has a maximum of 64 characters.

Defaults

The default name for the destination file is the same as the source filename.

Command Modes

any

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

You can make a copy of a file by using the **copy** command.

Tip You can rename a file by moving it within the same directory.

Examples

This example shows how to move a file to another directory:

```
n1000v# move file1 my_files:file2
```

This example shows how to move a file to another file system:

```
n1000v# move file1 slot0:
```

This example shows how to move a file to another supervisor module:

```
n1000v# move file1 bootflash://sup-remote/file1.bak
```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Makes a copy of a file.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

mtu

To configure the maximum transmission unit (MTU) size for an interface, use the **mtu** command. To remove the configured MTU size from the interface, use the **no** form of this command.

mtu *size*

no mtu *size*

Syntax Description

size	Specifies the MTU size. The range is 1500 to 9000.

Defaults

1500 Bytes

Command Modes

Interface Configuration (config-if)

SupportedUserRoles

network-admin

Command History

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

Examples

This example shows how to set the MTU size to 2000:

```
n1000v# configure terminal
n1000v(config)# configure interface port-channel 2
n1000v(config-if)# mtu 2000
```

Related Commands

Command	Description
show interface	Displays information about the interface, which includes MTU size.