



M Commands

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

mac access-list

To create a MAC access control list (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	<i>name</i>	MAC ACL name. The name is case-sensitive, alphanumeric, and has a maximum of 64 characters.
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Defaults	The MAC ACL does not exist.
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Command Modes	Global configuration (config)
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Supported User Roles	network-admin
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Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Examples This example shows how to create a MAC ACL:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
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	<i>seconds</i>	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	(Optional) Specifies the VLAN to apply the changed aging time.
	<i>vlan-id</i>	VLAN identification number. The range is from 1 to 4094.

Defaults 1800 seconds

Command Modes Global configuration (config)

Supported User Roles network-admin

Command History	Release	Modification
	5.2(1)SK1(1.1)	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 the aging time has been changed.

The 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# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# mac address-table aging-time 500
```

Related Commands

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

mac address-table static

To add a static entry to 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* {**interface** {*interface-name*}+ | **drop**} [**auto-learn**]

no mac address-table static *mac-address* **vlan** *vlan-id*

Syntax Description		
<i>mac-address</i>	Static MAC address to add to the table in one of the following formats:	<ul style="list-style-type: none"> • X.X.X • XX-XX-XX-XX-XX-XX • XX:XX:XX:XX:XX:XX • XXXX.XXXX.XXXX
vlan	Specifies a VLAN for the static MAC address.	
<i>vlan-id</i>	VLAN identification number. The range is from 1 to 4094.	
interface	(Optional) Specifies one of the following interfaces for the static MAC address:	
<i>interface-name</i>	<ul style="list-style-type: none"> • ethernet <i>slot/port</i> • vethernet <i>number</i> 	
drop	Indicates that all traffic destined for the specified MAC address and VLAN should be dropped.	
auto-learn	(Optional) Allows you to move this MAC address.	

Defaults None

Command Modes Global configuration (config)

Supported User Roles network-admin

Command History	Release	Modification
	5.2(1)SK1(1.1)	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# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
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 the MAC address table.

mac auto-static-learn

To toggle the auto-mac-learning state on a vEthernet interface, use the **mac auto-static-learn** command. To disable the auto-mac-learning state, use the **no** form of this command.

mac auto-static-learn

[no] mac auto-static-learn

Syntax Description This command has no arguments or keywords.

Defaults By default, the auto-mac-learning state is enabled.

Command Modes Interface configuration (config-if)
Port profile configuration (config-port-profile)

Supported User Roles network-admin

Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines Follow these guidelines:

- This command is needed on the vEthernet interfaces that are used for Microsoft Network Load Balancing setups in unicast mode.
- This configuration is not supported on the ports configured with Unknown Unicast Flood Blocking (UUFB).

Examples This example shows how to configure the auto-mac-learning state on veth1:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# int veth 1
n1000v(config-if)# no mac auto-static-learn
n1000v(config-if)#
```

Related Commands	Command	Description
	mac address-table static	Adds a static MAC address in the Layer 2 MAC address table and saves it in the running configuration.

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	
<i>name</i>	Group name. The name is case-sensitive, alphanumeric, and can have a maximum of 64 characters.
in	Specifies inbound traffic.
out	Specifies outbound traffic.

Defaults	None
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Command Modes	Port profile configuration (config-port-prof)
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Supported User Roles	network-admin
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Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Examples	<p>This example shows how to enable access control for port groups:</p> <pre>n1000v# configure terminal Enter configuration commands, one per line. End with CNTL/Z. n1000v(config)# port-profile 1 n1000v(config-port-prof)# mac port access-group groupOne in n1000v(config-port-prof)#</pre>
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Related Commands	Command	Description
	show mac	Displays MAC 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	Specifies the protocol.
	tos	Specifies the type of service.
Defaults	None	
Command Modes	Flow record configuration (config-flow-record)	
Supported User Roles	network-admin	
Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

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

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
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# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# flow record RecordTest
n1000v(config-flow-record)# no match ip protocol
n1000v(config-flow-record)# show flow record
```

match ip (NetFlow)

```
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
match ipv4	Defines IPv4 matching criteria for a NetFlow flow record.
match transport	Defines transport matching criteria for a NetFlow flow record.
show flow record	Displays a NetFlow flow record configuration.

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	Specifies the source address.
	destination	Specifies the destination address.
	address	Specifies the address.

Defaults	None
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Command Modes	Flow record configuration (config-flow-record)
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Supported User Roles	network-admin
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Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Examples	<p>This example shows how to configure IPv4 matching criteria for a NetFlow flow record and then display the result:</p>
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```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
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 and then display the result:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
```

match ipv4 (NetFlow)

```
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
match ip	Defines IP matching criteria for a NetFlow flow record.
match transport	Defines transport matching criteria for a NetFlow flow record.
show flow record	Displays a NetFlow flow record configuration.

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	Specifies the transport destination port.
	source-port	Specifies the transport source port.
Defaults	None	
Command Modes	Flow Record configuration (config-flow-record)	
Supported User Roles	network-admin	
Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Examples	<p>This example shows how to configure transport matching criteria for a NetFlow flow record and then display the result:</p> <pre>n1000v# configure terminal Enter configuration commands, one per line. End with CNTL/Z. 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)#</pre>
	<p>This example shows how to remove the transport matching criteria for a NetFlow flow record a and then display the result:</p> <pre>n1000v# configure terminal Enter configuration commands, one per line. End with CNTL/Z. n1000v(config)# flow record RecordTest</pre>

```

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
match ip	Defines IP matching criteria for a NetFlow flow record.
match ipv4	Defines IPv4 matching criteria for a NetFlow flow record.
show flow record	Displays a NetFlow flow record configuration.

max-ports

To specify the maximum number of ports for a port profile, use the **max-ports** command. To remove the maximum ports configuration, use the **no** form of this command.

max-ports *number*

no max-ports *number*

Syntax Description	<i>number</i>	Number of ports for a port profile. The range is from 1 to 1024.
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Defaults	32 ports
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Command Modes	Port profile configuration (config-port-prof)
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Supported User Roles	network-admin
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Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Examples	This example shows how to set the maximum number of ports in the testprofile port profile:
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```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# port-profile testprofile
n1000v(config-port-prof)# max-ports 100
n1000v(config-port-prof)#
```

This example shows how to remove the maximum ports configuration from the testprofile port profile:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# port-profile testprofile
n1000v(config-port-prof)# no max-ports 100
n1000v(config-port-prof)#
```

Related Commands	Command	Description
	port-profile	Creates a port profile.
	show port-profile name	Displays configuration information about a particular port profile.

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

Any

Supported User Roles

network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	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 enter commands on the Virtual Ethernet Module (VEM) remotely from the Cisco Nexus 1000V, use the **module vem** command.

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

Syntax Description	
<i>module-number</i>	Specifies the module number. The range is from 3 to 66.
execute	Specifies the command to execute on the VEM.
<i>line</i>	Command to be sent to the VEM.

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Defaults	None
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Command Modes	EXEC
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Supported User Roles	network-admin
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Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Examples This example shows how to display the VEM port profile configuration remotely from the Cisco Nexus 1000V:

```
n1000v# module vem 3 execute vemcmd show port-profile
```

This example shows how to display the VEM configuration remotely from the Cisco Nexus 1000V:

```
n1000v# module vem 3 execute vemcmd show 12 342
Bridge domain 8 brtmax 4096, brtcnt 6, timeout 300
VLAN 342, swbd 342, ""
Flags: S - Secure D - Drop
Type MAC Address LTL timeout Flags Secure
Dynamic 00:15:5d:e1:25:03 305 22
Dynamic 00:15:5d:e1:25:01 305 7
Dynamic 00:15:5d:e1:25:00 305 9
Dynamic 00:15:5d:e1:25:05 305 12
Dynamic 24:b6:57:63:60:43 305 7
Dynamic 00:1b:21:c2:46:f0 305 108
n1000v#
```

Related Commands	Command	Description
	show module vem	Displays VEM 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

<i>filesystem:</i>	(Optional) File system name. The name is case-sensitive and can be up to 28 characters.
<i>//module/</i>	(Optional) Supervisor module ID; values are sup-active , sup-local , sup-remote , or sup-standby . The identifiers are alphanumeric, case-sensitive, and can be up to 28 characters.
<i>directory/</i>	(Optional) Directory name. The name is alphanumeric, case-sensitive and can be up to 28 characters.
<i>source-filename</i>	File to move name. The name is alphanumeric, case-sensitive and can be up to 28 characters.
<i>destination-filename</i>	(Optional) Destination filename. The name is alphanumeric, case-sensitive and can be up to 28 characters.

Defaults

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

Command Modes

Any

Supported User Roles

network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	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.

 move