

MAC Access List Configuration Commands

level
one

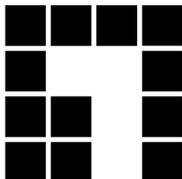


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Chapter 1 MAC Access List Configuration Commands

1.1 MAC Access List Configuration Commands

Mac access list configuration commands include:

- `mac access-list`
- `permit`
- `deny`
- `mac access-group`
- `show mac access-list`
- `show mac access-group`

1.1.1 `mac access-list`

Syntax

To add a MAC access list, use the **mac access-list** command. To delete a MAC access list, use the **no mac access-list** command.

[no] mac access-list *name*

Parameter

Parameter	Description
<i>name</i>	MAC access list name.

Default

None

Usage Guidelines

The command is used in global configuration mode.

Multiple entries configured in an access list must be compared with the same mask, otherwise the configuration will fail. At the same time, the same entry can only be configured once in an access list.

Example

The following example establishes MAC access list named `mac-acl`:

```
Switch(config)#mac access-list mac-acl
Switch(config-macl)#
```

1.1.2 permit

Syntax

To add a permit entry to the MAC access list, use the **permit** command. To delete a permit entry to the MAC access list, use the **no permit** command.

[no] permit {any | host *src-mac-addr* | *src-mac-addr* *src-mac-mask* } {any | host *dst-mac-addr* | *dst-mac-addr* *dst-mac-mask*}[**arp | **ip** [{**any** | *src-ip-addr* *src-ip-mask*} {**any** | *dst-ip-addr* *dst-ip-mask*}] | *ethertype* [**cos** *cos_value* | **location** *locat_num*]**

Parameter

Parameter	Description	Value range
any	Any value	-
host	Host	-
<i>src-mac-addr</i>	Source MAC address	AA:BB:CC:DD:EE:FF
<i>src-mac-mask</i>	Source MAC address mask	AA:BB:CC:DD:EE:FF
<i>dst-mac-addr</i>	Destination MAC address	AA:BB:CC:DD:EE:FF
<i>dst-mac-mask</i>	Destination MAC address mask	AA:BB:CC:DD:EE:FF
arp	Matched arp message	-
ip	Matched ip message	-
<i>src-ip-addr</i>	Source IP address	A.B.C.D
<i>src-ip-mask</i>	Source ip mask	A.B.C.D
<i>dst-ip-addr</i>	Destination IP address	A.B.C.D
<i>dst-ip-mask</i>	Destination IP mask	A.B.C.D
<i>ethertype</i>	Types of the matching Ethernet data packet.	0x0600-0xFFFF
<i>cos_value</i>	The cos priority of the message	0-7
<i>locat_num</i>	Location of inserting the entry	-

Default

Deny all.

Usage Guidelines

The command is used in MAC access list configuration mode

Example

The following example shows how to permit host whose source MAC address is 12:34:56:78:ab:cd:

```
Switch(config-macl)#permit host 12:34:56:78:ab:cd any 0x806
```

1.1.3 deny

Syntax

To add/ delete a deny entry to the MAC access list, use the following command.

```
[no] deny {any | host src-mac-addr | src-mac-addr src-mac-mask } {any | host
dst-mac-addr | dst-mac-addr dst-mac-mask}[ arp | ip [{any | src-ip-addr src-ip-mask}
{any | dst-ip-addr dst-ip-mask}] | ethertype [cos cos_value | location locat_num]
```

Parameter

Parameter	Description	Value range
any	Any value	-
host	Host	-
src-mac-addr	Source MAC address	AA:BB:CC:DD:EE:FF
src-mac-mask	Source MAC address mask	AA:BB:CC:DD:EE:FF
dst-mac-addr	Destination MAC address	AA:BB:CC:DD:EE:FF
dst-mac-mask	Destination MAC address mask	AA:BB:CC:DD:EE:FF
arp	Matched arp message	-
ip	Matched ip message	—
src-ip-addr	Source IP address	A.B.C.D
src-ip-mask	Source IP mask	A.B.C.D
dst-ip-addr	Destination IP address	A.B.C.D
dst-ip-mask	Destination IP mask	A.B.C.D
ethertype	Types of the matching Ethernet data packet.	0x0600-0xFFFF
cos_value	The cos priority of the message	0-7
locat_num	Location of inserting the entry	-

Default

Deny all.

Usage Guidelines

The command is used in MAC access list configuration mode

Example

The following example shows how to deny host whose source MAC address is 12:34:56:78:ab:cd:

```
Switch(config-macl)#deny host 12:34:56:78:ab:cd any 0x806
```

1.1.4 mac access-group

Syntax

Apply the configured MAC access list in interface configuration mode or global configuration mode, or delete the MAC access list applied in interface configuration mode or global configuration mode.

Global configuration mode:

```
mac access-group name { [egress] | vlan {word | add word | remove word}}
```

```
[stat-packet | stat-byte]
```

```
[no] mac access-group name [ [egress] | vlan ]
```

Interface configuration mode:

```
[no] mac access-group name [egress] [stat-packet | stat-byte]
```

Parameter

Parameter	Description
<i>name</i>	Name of the MAC access list.
slot	The access list is applied on the online card.
egress	The access list is applied in the egress direction.
Vlan	The access list is applied to the inbound VLAN.
<i>Word</i>	VLAN range table
add	Add VLAN range table
remove	Remove VLAN range table
stat-packet	Statistics packets
stat-byte	Statistics bytes

Default

No MAC access list is applied.

Usage Guidelines

Use the command in layer-2 global or interface configuration mode. If the access list does not exist, an access list with no rule will be created.

Example

The following example shows how to configure MAC access list named macacl on interface g0/0/1:

```
Switch(config-g0/0/1)#mac access-group macacl
```

The following example shows how to configure the MAC access list named macacl in the global incoming direction.

```
Switch(config)#mac access-group macacl
```

1.1.5 show mac access-list

Syntax

To display all or specified mac access list, run the following command.

show mac access-list [*name*]

Parameters

Parameters	Description
<i>name</i>	Name of the mac access-list.

Default

None

Usage Guidelines

None

Example

The following example shows how to display MAC access-list:

```
Switch(config)#show mac access-list
mac access-list 1
index:1 permit host 0001.0001.0001 any
```

```
Switch(config)#
```

1.1.6 show mac access-group

Syntax

To display all or specified mac access list statistics information, run the following command.

show mac access-group *name* { **vlan** | **interface** *interface-name* } [**egress**]

Parameters

Parameters	Description
<i>name</i>	Name of mac access list
<i>Interface-name</i>	Interface

Default

None

Usage Guidelines

None

Example

The following example shows how to display MAC access list statistics information:

```
Switch(config)#show mac access-group 1
```

```
mac access-list 1
```

```
  permit host 00:01:00:01:00:01 any    statistics: 10 packets
```