

Port Additional Characteristic Configuration Commands



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Chapter 1 Port Security Commands

1.1 MAC access list configuration commands

MAC access list configuration commands include

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

1.1.1 `mac access-list`

description

[no] mac access-list *name*

To add a MAC access list, use the `mac access list` command. To delete a MAC access list, use the `no` form of this command

parameter

parameter	description
<i>name</i>	MAC access list name.

default

none

instruction

In the global configuration mode, the masks of the entries configured in access list must be the same, or the configuration will be disabled. Meanwhile, the same entry in a access list can be configured only once.

example

The following example permits host whose source MAC address is 1234.5678.abcd:

```
Switch-config_# mac access-list mac-acl  
Switch-config-macl#
```

1.1.2 `permit`

description

[no] permit {**any** | **host** *src-mac-addr*} {**any** | **host** *dst-mac-addr*}[*ethertype*]

To add a permit entry to the MAC access list, use the `permit` command. To delete a permit entry from the MAC access list, use the `no` form of this command

parameter

parameter	description	Value range
any	Any value	—
host	Host	—
src-mac-addr	Source MAC address	H.H.H
dst-mac-addr	Destination MAC address	H.H.H
<i>ethertype</i>	Types of the matching ethernet data packet.	0-0xFFFF

default

deny all

instruction

MAC access list configuration mode

example

The following example permits host whose source MAC address is 1234.5678.abcd:
Switch-config-macl#permit host 1234.5678.abcd any 0x806

1.1.3 deny**description**

[no] deny {any | host *src-mac-addr*} {any | host *dst-mac-addr*}[*ethertype*]

To add a deny entry to the MAC access list, use the deny command. To delete a deny entry from the MAC access list, use the no form of this command.

parameter

parameter	description	Value range
any	Any value	—
host	Host	—
src-mac-addr	Source MAC address	H.H.H
dst-mac-addr	Destination MAC address	H.H.H
<i>ethertype</i>	Types of the matching Ethernet data packet.	0-0xFFFF

default

deny all

instruction

MAC access list configuration mode

example

The following example denies host whose source MAC address is 1234.5678.abcd:

```
Switch-config-macl#deny host 1234.5678.abcd any 0x806
```

1.1.4 mac access-group**description**

[no] mac access-group *name*

To apply the configured MAC access list in global configuration mode, use the mac access-group command. Use the no form of this comand to delete the mac access-list

parameter

parameter	description
<i>name</i>	Name of the MAC access list

default

No MAC access list is applied

instruction

configure the command in layer-2 configuration mode

example

The following example configures MAC access list named macacl:。

```
Switch_config_g0/1#mac access-group macacl
```

Chapter 2 Port Block Commands

2.1 Port block

description

[no] switchport block {*unicast* | *multicast* | *broadcast*}

Configure the port without forwarding packets with specified types

parameter

parameter	description
<i>unicast</i>	Port does not forward the unknown unicast frame
<i>multicast</i>	Port does not forward the multicast frame
<i>broadcast</i>	Port does not forward broadcast frame

default

forward all packets

instruction

configure the command in layer-2 configuration mode

example

Configure the g0/1 port without forwarding the unknown unicast frame

```
Switch(config)# interface GigaEthernet0/1
```

```
Switch(config-g0/1)# switchport block unicast
```

Chapter 3 Port Protection

3.1 Port protected

description

[no] switchport protected

To configure isolation function of swithport, use the switchport protected command

parameter

none

default

swithport is not isolated

instruction

configure the command in layer-2 configuration mode

example

Configure the /1 port without forwarding unknown unicast frame

```
Switch(config)# interface GigaEthernet0/1
```

```
Switch(config-g0/1)# switchport protected
```

Chapter 4 Storm Control

description

storm-control {**broadcast** | **multicast** | **unicast**} **threshold** *count*

no storm-control {**broadcast** | **multicast** | **unicast**} **threshold** *count*

Configure the storm control function of the switchport, use the storm-control command

parameter

parameter	description
broadcast multicast unicast	Define the storm control of broadcast multicast and unicast
threshold <i>count</i>	Define the traffic percentage of the switchport storm control. Count defines the traffic threshold of storm

default

none

isntructionom

configure the command in layer-2 port configuration mode

example

Configure the /1 port with the storm-control percentage of unknown unicast frame as 20

```
Switch(config)# interface GigaEthernet0/1
```

```
Switch(config-g0/1)# storm-control unicast threshold 20
```


Chapter 5 Port Rate-limit

5.1 Port rate-limit

description

[no] switchport rate-limit *band* { ingress|egress }

To configure the traffic rate-limit of switchport, use the switchport rate-limit command

parameter

parameter	description
<i>Band</i>	Traffic rate, gigabit port 1-1000Mbps, step length is 8Mbps.
ingress	Affect on the entrance
egress	Affect on the exit

default

none

instruction

layer-2 port configuration mode

example

configure the traffic income rate limit on g0/1 port as 1M

```
Switch(config)# interface GigaEthernet0/1
```

```
Switch(config-if)# switchport rate-limit 1 ingress
```

Chapter 6 Port Period Detection

6.1 Keepalive

description

[no] keepalive *period*

To configure the switchport period detection function, use the keepalive command

parameter

parameter	description
<i>period</i>	Period detection interval<0-32767> the default is 12 seconds

default

enabled

instruction

layer-2 port configuration mode

example

Enable the switchport period detection on the /1 port and set the interval as 12 seconds

```
Switch(config)# interface GigaEthernet0/1
```

```
Switch(config-if)# keepalive
```