12-Commands for Mirroring Configuration

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1.Commands for Mirroring Configuration

monitor session source interface

Command	**monitor session <*session*> source {interface <*interface-list*> | cpu} {rx| tx| both}** **no monitor session <*session*> source {interface <*interface-list*> | cpu}**

parameter

session	is the session number for the mirror. Currently only 1 is supported
interface-list	is the list of source interfaces of the mirror which can be separated by "-" and ";".
cpu	means the CPU on the board to be the source of the mirror for debugging. Datagram received by or sent by the CPU
rx	means to filter the datagram received by the interface
tx	for the datagram sent out
both	means both of income and outcome datagram

default	Default does not match any mirror source port
Mode	Global mode
Usage Guide	This command is used to configure the source interfaces for the mirror. It is not restricted the source interface of the mirror on the switch. The source can be one interface, or can be multiple interfaces. Both of the income and outcome datagram can be mirrored, or they can be mirrored selectively. If no [rx | tx | both] is specified, both are made to be the default. When multiple interfaces are mirrored, the direction of the mirror can be different, but they should be configured separately.
Example	Configure to mirror the datagram sent out by interface 1/0/1-4 and to mirror the datagram received by interface1/0/5。 Switch(config)#monitor session 1 source interface ethernet 1/0/1-4 tx Switch(config)#monitor session 1 source interface ethernet1/0/5 rx

monitor session source interface access-list

Command	**monitor session <*session*> source {interface <*interface-list*>} access-list <*num*> {rx|tx|both}** **no monitor session <*session*> source {interface <*interface-list*>} access-list <*num*>**

parameter	***session***	is the session number for the mirror. Currently only 1 is supported
	interface-list	is the list of source interfaces of the mirror which can be separated by '-' and ';'
	num	is the number of the access list
	rx	means to filter the datagram received by the interface
	tx	for the datagram sent out
	both	means both of income and outcome datagram

default Default not configured

Mode Global Mode

Usage Guide This command is used to configure the source interfaces for the mirror. It is not restricted the source interface of the mirror on the switch. The source can be one interface, or can be multiple interfaces. For flow mirror, only datagram received can be mirrored. The parameters can be rx, tx, both. The related access list should be prepared before this command is issued. For how to configure the access list, please refer to ACL configuration. The mirror can only be created after the destination interface of the corresponding session has been configured. In the moment, the command only IP ACL and MAC ACL

Example Configure the mirror interface 1/0/6 to filter with access list 120 in session 1.
Switch(config)#monitor session 1 source interface 1/0/6 access-list 120 rx

monitor session destination interface

Command **monitor session <*session*> destination interface <*interface-number*>**
no monitor session <*session*> destination interface <*interface-number*>

parameter	***session***	is the session number of the mirror, which is currently limited to 1-4
	interface-number	is the destination interface of the mirror.

default Default does not match mirror destination port

Mode Global mode

Usage Guide Only four destination mirror interface is supported on the switch. To be mentioned. The interface which is configured as the destination of the mirror should not be configured as the member of the interface trunk. And the maximum throughput of the interface is recommended to be larger than the total throughput of the interfaces to be mirrored. If the destination is removed, the mirror path configured will be removed at the same time. And if the destination interface is reconfigured, the interface, CPU mirror pathwill be recovered. To be mentioned, the flow mirror can only be recovered after the destination of the interface is re-configured.

Example	Configure interface 1/0/7 as the destination of the mirror. Switch(config)#monitor session 1 destination interface ethernet 1/0/7

show monitor

Command	**show monitor**
parameter	-
default	-
Mode	Admin Mode
Usage Guide	This command is used to display the source and destination ports for the configured mirror sessions. For port mirroring, CPU mirroring, and flow mirroring, the mirror mode of the source can be displayed.
Example	View configuration information for the current image. Switch#show monitor

mirror sample rate

Command	**monitor session <*session*> sample rate <num>** **no monitor session <*session*> sample rate**	
parameter	***session***	is mirror session value, and it supports 1 to 4 at moment
	num	is sampled value, and ranges from 0 to 65535
default	Default Unconfigured Sampling Rate	
Mode	Global Mode	
Usage Guide	It represents how many packets mirror to destination port and it ranges from 0 to 65535, such as, when rate value equals 100, the first, 101, 201 packets can mirror destination port, when rate value equal 0, it does not configure samping rate, the default is notconfigured samping rate.	
Example	The sampling rate for configuring mirror session 1 is 100. switch(config)#monitor session 1 sample rate 100	

2.Commands for RSPAN Configuration

remote-span

Command	**remote-span** **no remote-span**
parameter	-
default	Not configured
Mode	VLAN Configuration Mode
Usage Guide	This command is used to configure the existing VLAN as RSPAN VLAN. Dedicated RSPAN VLAN should be configured before RSPAN can function. When configuring RSPAN VLAN, it should be made sure that specialized VLAN, such as the default VLAN, dynamic VLAN, private VLAN, multicast VLAN, and layer 3 interface enabled VLAN, should not be configured as RSPAN VLAN. If any existing sessions are still working when RSPAN is disabled, these sessions will be still working regardless the configuration change. However, if any layer 3 interface is configure in the VLAN after RSPAN is disable, the existing RSPAN session will be stopped.
Example	RSPAN VLAN. VLAN 5 configured. Switch(Config-Vlan5)#remote-span

monitor session remote vlan

Command	**monitor session <*session*> remote vlan <*vid*>** **no monitor session <*session*> remote vlan**

parameter		
	session	session ID, range between 1~4
	vid	The id of RSPAN VLAN

default	Not configured
Mode	Global Mode
Usage Guide	To configure local mirror session to RSPAN. The VLAN id is the RSPAN VLAN. The mirrored data grams will be attached with RSPAN tags.
Example	Configure the remote vlan of mirror session 1 to 5. Switch(config)#monitor session 1 remote vlan 5

monitor session reflector-port

Command	**monitor session <*session*> reflector-port <*interface-number*>** **no monitor session <*session*> reflector-port <*interface-number*>**

parameter	***session***	Session ID, range between 1~4
	interface-number	Interface number

default

Not configured

Mode

Global Mode.

Usage Guide

This command configures the reflector port for the destination of mirror data grams, and disables the MAC learning function of the specified port. The configuration of reflector port is to change the mode of the local port from the destination port mode to be the reflector mode. Hence, the configuration of reflector port and the destination port are exclusive. The no command is used to restore the reflector port to normal port. The source port, in access or trunk mode, should not be added to RSPAN VLAN. When the reflector port is configured as springboard of CPU TX direction mirroring, it must be configured as TRUNK port and allows the RSPAN VLAN data passing, the Native VLAN should not be configured as RSPAN VLAN. After configured RSPAN, the vlan tag will be added on the packet of the egress mirror. It will cause the abort error frame on the reflection port, so the default MTU value of the switch should be modified.

Example

Configure port 1/0/5 as a reflection port.

```
Switch(config)#monitor session 1 reflector-port ethernet1/0/5
```