Content

Chapter 1 Commands for Mirroring Configuration

1.1 monitor session source interface

Command: monitor session *<session>* source {interface *<interface-list>* | cpu [slot *<slotnum>*]} {rx| tx| both}

   no monitor session *<session>* source {interface *<interface-list>* | cpu [slot *<slotnum>*]}

Function: Specify the source interface for the mirror. The no form command will disable this configuration.

Parameters: *<session>* is the session number for the mirror. Currently only 1 to 4 is supported. ***<interface-list>*** is the list of source interfaces of the mirror which can be separated by "-" and ";". **cpu slot *<slotnum>*** specifies the CPU on the specified board to be the source of the mirror for debugging. Datagram received by or sent by the specified CPU. Currently the CPU mirror is only supported be configured in session 4. **rx** means to filter the datagram received by the interface, while **tx** for the datagram sent out, and **both** means both of income and outcome datagram.

Command 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

1.2 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>*

Function: Specify the access control for the source of the mirror. The no form command will disable this configuration.

Parameters: <*session*> is the session number for the mirror. Currently only 1 to 4 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, **and** both means both of income and outcome datagram.

Command 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.

Example: Configure the mirror interface 1/0/6 to filter with access list 120 in session 2.

Switch(config)#monitor session 2 source interface 1/0/6 access-list 120 rx

1.3 monitor session destination interface

Command: monitor session <*session*> destination interface <*interface-number*>

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

Function: Specify the destination interface of the mirror. The no form command will disable this configuration.

Parameters: <*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: None.

Command Mode: Global mode

Usage Guide: 4 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 of a session is removed, the mirror path configured in the session will be removed at the same time. And if the destination interface is reconfigured, the interface, CPU mirror path will 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

1.4 show monitor

Command: show monitor

Function: To display information about the source and destination ports of all the mirror sessions.

Command 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. For MAC mirroring, MAC mirror configuration will be displayed for the supported switch cards.

Example:

Switch#show monitor

Chapter 2 Commands for RSPAN Configuration

2.1 remote-span

Command: remote-span

      no remote-span

Function: To configure VLAN to RSPAN VLAN. The no form of this command will delete the RSPAN VLAN.

Parameter: None.

Command Mode: VLAN Configuration Mode.

Default: Not configured.

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:

Switch(Config-Vlan5)#remote-span

2.2 monitor session remote vlan

Command: monitor session *<session>* remote vlan *<vid>*

      no monitor session *<session>* remote vlan

Function: To configure local mirror session to RSPAN. The no form of this command will restore the RSPAN to local mirror.

Parameter: *<session>*: session ID, range between 1~4. ***<vid>*:** The id of RSPAN VLAN.

Command Mode: Global Mode.

Default: Not configured.

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:

Switch(config)#monitor session 1 remote vlan 5

2.3 monitor session reflector-port

Command: monitor session <*session*> reflector-port <*interface-number*>

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

Function: To configure reflector port, the no form of this command will delete the reflector port.

Parameter: <*session*>: Session ID, range between 1~4, **<*interface-number*>:** Interface number.

Command Mode: Global Mode.

Default: Not configured.

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:

Switch(config)#monitor session 1 reflector-port ethernet1/0/3