



SPAN Commands

This chapter contains the following sections:

- [monitor session destination](#), on page 2
- [monitor session source](#), on page 4
- [show monitor session](#), on page 6

monitor session destination

To create a new Switched Port Analyzer (SPAN) use the **monitor session destination** command in Global Configuration mode. To remove a destination session, use the **no** form of the command.

Syntax

monitor session *session_number* **destination** {**interface** *interface-id* [**network**]} | {**remote vlan** *vlan-id* **reflector-port** *interface-id*} **network**}

no monitor session *session_number* destination

Parameters

- **session_number**—Specify the session number identified with the SPAN. The range is 1 to 4.
- **interface** *interface-id*—Specify the destination interface for the SPAN, (Ethernet port).
- **network**—Specify that the destination port acts also as a network port.

Default Configuration

No SPAN sessions are configured.

Command Mode

Global Configuration mode

User Guidelines

Use the **monitor session** *session_number* **destination interface** *interface-id*, to create a SPAN, local flow mirror.

If the **network** keyword is not defined only mirrored traffic sent on a destination port and all input traffic is discard and a value of DOWN is advertised as its operational status to all applications running on it.

A destination port configured without the **network** keyword has the following limitations:

- 802.1x cannot be enabled on the port.

A port cannot be configured as destination port with the **network** keyword if one the following conditions is true:

- It belongs to the source VLAN
- It belongs to the remote VLAN

Please, do not add the destination port to the source.

A destination port with the **network** keyword cannot be configured on an edge port (a port having one of the **vlan-mapping** modes).

Mirrored traffic is sent to queue number 1 of the destination port.

Use the **no monitor session** *session_number* **destination** command to remove one destination session.

Example 1. The following example configures a SPAN session consisting from 3 source and one destination session. The first source session copies traffic for both directions from the source port gi1/0/2, the second source session copies bridges traffic from VLAN 100, and the third source session copies traffic for received on the source port gi1/0/3. The destination session defines port gi1/0/1 as the destination port.

```
switchxxxxxx(config)# monitor session 1 source interface gi1/0/2 both
switchxxxxxx(config)# monitor session 1 source vlan 100
switchxxxxxx(config)# monitor session 1 source interface gi1/0/3 rx
witchxxxxxx(config)# monitor session 1 destination interface gi1/0/1
```

monitor session source

To create a new Switched Port Analyzer (SPAN) source session, use the **monitor session source** command in Global Configuration mode. To remove a source session, use the **no** form of the command.

Syntax

```
monitor session session_number source {interface interface-id [both | rx | tx]} | {vlan vlan-id}
no monitor session [session_number] source [ {interface interface-id} | {vlan vlan-id} ]
```

Parameters

- **session_number**—Specify the session number identified with the SPAN or RSPAN session. The range is 1 to 4.
- **interface interface-id**—Specify the source interface for a SPAN or RSPAN session (Ethernet port).
- **both, rx, tx**—Specify the traffic direction to monitor. If you do not specify a traffic direction, the source interface sends both transmitted and received traffic.
- **vlan vlan-id**—Specify the SPAN source interface as a VLAN ID. In this case only a value of 1 is allowed for the *session_number* argument.

Default Configuration

No SPAN sessions are configured.

Command Mode

Global Configuration mode

User Guidelines

Use the **monitor session session_number source interface interface-id [both | rx | tx]** command, to create a SPAN or RSPAN start source session to monitor traffic that enters or leaves a source port.

Use the **monitor session session_number source vlan vlan-id** command, to create a SPAN or start RSPAN source session to monitor traffic that bridged into a source VLAN.

A SPAN session consists from up to 8 sources and one destination with the same session number.

Each **monitor session source** command defines one source port or VLAN. Different **monitor session source** commands must define different sources. A new command with the same session number and the same source overrides the previous defined one.

Up to 8 sources can be defined in one session.

If a packet is mirrored by both the port-based ingress mirroring mechanism, and one of the other ingress mirroring mechanisms, the selected session is the one with the higher session number.

All definitions of different source ports for the same source session must be of the same type: SPAN,

A source port cannot be a destination port.

A source port cannot be the a OOB port.

The source interface in a RSPAN source switch can not be a membership of the remote VLAN.

Use the **no monitor session** *session_number* **source** **{interface interface-id} | {vlan vlan-id}** | command to remove one source.

Use the **no monitor session** *session_number* **source** command to remove all sources ports of the given source session.

Example 1. The following example configures a SPAN session consisting from 3 source and one destination session. The first source session copies traffic for both directions from the source port gi1/0/2, the second source session copies bridges traffic from VLAN 100, and the third source session copies traffic for received on the source port gi1/0/3. The destination session defines port gi1/0/1 as the destination port.

```
switchxxxxxx(config)# monitor session 1 source interface gi1/0/2 both
switchxxxxxx(config)# monitor session 1 source vlan 100
switchxxxxxx(config)# monitor session 1 source interface gi1/0/3 rx
switchxxxxxx(config)# monitor session 1 destination interface gi1/0/1
```

show monitor session

To display information about Switched Port Analyzer (SPAN) and Remote SPAN (RSPAN) sessions on the switch, use the **show monitor** command in User EXEC mode.

Syntax

```
show monitor session [session_number]
```

Parameters

- *session_number*—Specify the session number identified with the SPAN or RSPAN session. The range is 1 to 4. If the argument is not defined information about all sessions are displayed.

Default Configuration

This command has no default settings.

Command Mode

User EXEC mode

User Guidelines

Use the **show monitor session** *session_number* command to display information about one session.

Use the **show monitor session** command to display information about all sessions

Example 1. The following example displays information about all SPAN sessions defined into the switch:

```
switchxxxxxx> show monitor session
Session 1
  Type: SPAN
  Source: gi1/0/2, rx only
  Source: VLAN 100
  Source: flow mirror, policy-map: alpha class-maps: ip-http,  ipv6-http
  Destination: gi1/0/1, network port
```

Field Definitions:

- **Type**—The type of the session.
- **Source**—A source of the session. The following options are supported:

Source: *interface-id*, *traffic-direction*(rx only,tx only, or both)

The Source is an interface.

Source: *vlan vlan-id*

The Source is a VLAN.

Source: flow mirror, policy-map: *policy-map-name*, class-maps: *class-map-name1*, *class-map-name2*

The Source is a flow mirror, only attached policy-names are displayed.

- **Destination**—A destination of the session. The following options are supported:

Destination: *interface-id*

The Destination is an interface, regular forwarding on the interface is not supported.

Destination: *interface-id*, network

The Destination is an interface, regular forwarding on the interface is supported.

show monitor session