

# **Configuring SPAN**

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## Information About SPAN

The Switched Port Analyzer (SPAN) feature (sometimes called port mirroring or port monitoring) selects network traffic for analysis by a network analyzer. The network analyzer can be a Cisco SwitchProbe, a Fibre Channel Analyzer, or other Remote Monitoring (RMON) probes.

### **SPAN Sources**

SPAN sources refer to the interfaces from which traffic can be monitored. The Cisco Nexus device supports Ethernet, Fibre Channel, virtual Fibre Channel, port channels, SAN port channels, VSANs and VLANs as SPAN sources. With VLANs or VSANs, all supported interfaces in the specified VLAN or VSAN are included as SPAN sources. You can choose the SPAN traffic in the ingress direction, the egress direction, or both directions for Ethernet, Fibre Channel, and virtual Fibre Channel source interfaces:

- Ingress source (Rx)—Traffic entering the device through this source port is copied to the SPAN destination port.
- Egress source (Tx)—Traffic exiting the device through this source port is copied to the SPAN destination port.



Note

Fibre Channel ports and VSAN ports cannot be configured as ingress source ports in a SPAN session.

### **Characteristics of Source Ports**

A source port, also called a monitored port, is a switched interface that you monitor for network traffic analysis. The switch supports any number of ingress source ports (up to the maximum number of available ports on the switch) and any number of source VLANs or VSANs.

A source port has these characteristics:

- Can be of Ethernet, Fibre Channel, virtual Fibre Channel, port channel, SAN port channel, VSAN or VLAN port type.
- Cannot be monitored in multiple SPAN sessions.
- Cannot be a destination port.
- Each source port can be configured with a direction (ingress, egress, or both) to monitor. For VLAN and VSAN sources, the monitored direction can only be ingress and applies to all physical ports in the group. The RX/TX option is not available for VLAN or VSAN SPAN sessions.
- Port Channel and SAN Port Channel interfaces can be configured as ingress or egress source ports.
- · Source ports can be in the same or different VLANs or VSANs.
- For VLAN or VSAN SPAN sources, all active ports in the source VLAN or VSAN are included as source ports.

## **SPAN Destinations**

SPAN destinations refer to the interfaces that monitors source ports. The Cisco Nexus Series device supports Ethernet and Fibre Channel interfaces as SPAN destinations.

Source SPAN	Dest SPAN
Ethernet	Ethernet
Fibre Channel	Fibre Channel
Fibre Channel	Ethernet (FCoE)
Virtual Fibre Channel	Fibre Channel
Virtual Fibre Channel	Ethernet (FCoE)

Starting with Cisco NX-OS Release 7.2(0)N1(1), HIF and virtual ethernet (Veth) ports as SPAN destination is supported.

## **Characteristics of Destination Ports**

Each local SPAN session must have a destination port (also called a monitoring port) that receives a copy of traffic from the source ports, VSANs, or VLANs. A destination port has these characteristics:

- Can be any physical port. Source Ethernet, FCoE, and Fibre Channel ports cannot be destination ports.
- Cannot be a source port.
- Cannot be a port channel or SAN port channel group.
- Does not participate in spanning tree while the SPAN session is active.
- Is excluded from the source list and is not monitored if it belongs to a source VLAN of any SPAN session.
- Receives copies of sent and received traffic for all monitored source ports.
- The FEX interface cannot be a span destination.

### Multiple SPAN Destinations

Local SPAN and SPAN-on-Drop sessions can support multiple destination ports. This allows traffic in a single local SPAN session or a SPAN-on-Drop session also to be monitored and send to multiple destinations.



Note Multiple destinations are not supported on ERSPAN, or SPAN-on-Latency sessions.

### **SPAN** on Drop

The SPAN-on-drop feature enables the spanning of packets which would normally be dropped due to unavailable buffer or queue space on ingress. Instead of dropping a packet when congestion occurs, the system

stores the packet in a separate SPAN-on-drop buffer and then sends the packet to the specified SPAN-on-drop destination port.

## **SPAN-on-Latency Sessions**

The SPAN-on-Latency feature allows the system to SPAN packets that exceed a pre-configured latency threshold.

For high-latency flows the system can be configured to send a copy to any pre-configured SPAN destination. This creates a data set for analytics that can be used to check which applications are impacted by increased latency in the network. This feature can also be used to identify traffic flows that experience congestion.

Packets exceeding the latency measurements, egressing out of the source port only will be spanned.



Note

SPAN copies can be transported to a local analyzer port, or remote analyzer using IPFIX/ERSPAN encapsulation. The SPAN copies can be truncated to save bandwidth.

### **Guidelines and Limitations for SPAN**

- SPAN is not supported on a management interface.
- Starting from Cisco NX-OS Release 7.3(0)N1(1), a host interface (HIF) port can be a destination port for local SPAN sessions. However, a HIF port cannot be a destination port for SPAN-on-Latency, SPAN-on-Drop and ERSPAN sessions.
- An interface cannot be added as a source interface in the same direction in more than one SPAN session.
- Some protocols such as LLDP, DCBX, LACP, CDP are offloaded to FEX CPU. Hence the parent switch never sees native frames for these protocols and uses MTS messaging to inform the parent CPU.

Moreover, since SPAN is done on the parent fabric interface, native packets for the protocols that are handled by FEX CPU are not seen in the SPAN.

SPAN traffic is rate-limited as follows on Cisco Nexus devices to prevent a negative impact to production traffic:

SPAN supports 16 active bi-directional SPAN sessions.

The following guidelines and limitations apply to SPAN session where multiple destinations are configured:

- Multiple destinations are supported for Local SPAN or SPAN-on-Drop sessions only. Multiple destinations
  are not supported on ERSPAN or SPAN-on-Latency sessions.
- The maximum number of unique destinations configured on all active sessions is 16. A single SPAN session can have a maximum of 16 destinations, and a SPAN-on-Drop session can have a maximum of 17 destinations, in which case no further SPAN sessions can be configured.
- You cannot use the same source interface in multiple SPAN or ERSPAN sessions.

• Connecting SPAN destination ports to a switch device is not supported.

The following guidelines and limitations apply to SPAN-on-Drop sessions:

- Only Ethernet source interfaces are supported (port channels not supported). Sources can be a part of a SPAN-on-Drop session and a local SPAN session simultaneously.
- At most one SPAN-on-Drop or SPAN-on-Drop ERSPAN session may be active at the same time.
- Directions on source interfaces are not supported.
- FEX interfaces are not supported as sources for SPAN-on-Drop sessions. However, fabric interfaces are supported. Setting all fabric interfaces associated with a FEX as sources allows SPAN-on-Drop sessions to be enabled on all FEX ports associated with that fabric interface.
- Multicast egress drops are not spanned. SPAN-on-Drop applies only to packets dropped in ingress due to a lack of buffer resources or when the Virtual Output Queueing (VOQ) size exceeds the preprogrammed threshold.
- ACL-based SPAN is not supported
- Configuring the maximum transmission unit (MTU) truncation size for packets is not supported for SPAN-on-Drop sessions.

The following guidelines and limitations apply to SPAN-on-Latency sessions:

- Although SPAN-on-Latency detection is performed on a per-port basis, the span pointer configuration is a global value.
- The maximum latency threshold value configuration is per 40 Gigabit port. Therefore, if there the system has 10 Gigabit ports, the latency threshold is shared by four 10 Gigabit ports.
- At most only one SPAN-on-Latency or SPAN-on-Latency ERSPAN session may be active at the same time.
- You must issue the **clear hardware profile latency monitor all** command when the switch is reloaded or when a module is powered on. Until you issue this command no packets are spanned.
- Even though fabric interfaces are supported as sources, FEX interfaces and Port Channel are not supported as sources.
- Span-on-Latency Source cannot be part of any other span session i.e. Local Span or Span-on-drop.
- ACL based SOL is not supported.
- Local SPAN/SPAN on Drop/SPAN on Latency is not aware of VPC.
- The following is the limitation for HIF and Virtual Ethernet (Veth) as SPAN destination:
  - Multi-destination SPAN is not supported. If HIF/VETH port is a destination, the monitor session must have single destination.
  - A SPAN destination port, which is part of an active SPAN session, receives flood traffic. You can prevent this behavior by using the unknown unicast flood block feature. To enable this feature, use the **switchport block unicast** command.

## **Creating or Deleting a SPAN Session**

You create a SPAN session by assigning a session number using the **monitor session** command. If the session already exists, any additional configuration information is added to the existing session.

#### Procedure

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	switch(config)# <b>monitor session</b> session-number	Enters the monitor configuration mode. New session configuration is added to the existing session configuration.

#### Example

The following example shows how to configure a SPAN monitor session:

```
switch# configure terminal
switch(config) # monitor session 2
switch(config) #
```

### **Configuring an Ethernet Destination Port**

You can configure an Ethernet interface as a SPAN destination port.



Note

The SPAN destination port can only be a physical port on the switch.

	Command or Action	Purpose	
Step 1	switch# configure terminal	Enters global configuration mode.	
Step 2	<pre>switch(config)# interface ethernet slot/port</pre>	Enters in Ethernet port.	nterface configuration mode for the tinterface with the specified slot and
		Note	If this is a QSFP+ GEM or a breakout port, the <i>port</i> syntax is <i>QSFP-module/port</i> .
		Note	To enable the <b>switchport monitor</b> command on virtual ethernet ports, you can use the <b>interface vethernet</b> <i>slot/port</i> command.

	Command or Action	Purpose	
Step 3	switch(config-if)# switchport monitor	Enters mo interface. the port is	onitor mode for the specified Ethernet Priority flow control is disabled when s configured as a SPAN destination.
Step 4	switch(config-if)# exit	Reverts to	global configuration mode.
Step 5	switch(config)# monitor session session-number	Enters mo specified	onitor configuration mode for the SPAN session.
Step 6	switch(config-monitor)# <b>destination interface</b> ethernet <i>slot/port</i>	Configure Note Note	es the Ethernet SPAN destination port. If this is a QSFP+ GEM or a breakout port, the <i>port</i> syntax is <i>QSFP-module/port</i> . To enable the virtual ethernet port as destination interface in the monitor configuration way can
			use the <b>destination interface</b> <b>vethernet</b> <i>slot/port</i> command.

#### Example

The following example shows how to configure an Ethernet SPAN destination port (HIF):

```
switch# configure terminal
switch(config)# interface ethernet100/1/24
switch(config-if)# switchport monitor
switch(config-if)# exit
switch(config)# monitor session 1
switch(config-monitor)# destination interface ethernet100/1/24
switch(config-monitor)#
```

The following example shows how to configure a virtual ethernet (VETH) SPAN destination port:

```
switch# configure terminal
switch(config)# interface vethernet10
switch(config-if)# switchport monitor
switch(config-if)# exit
switch(config)# monitor session 2
switch(config-monitor)# destination interface vethernet10
switch(config-monitor)#
```

## **Configuring MTU Truncation for Each SPAN Session**

To reduce the SPAN traffic bandwidth, you can configure the maximum bytes allowed for each replicated packet in a SPAN session. This value is called the maximum transmission unit (MTU) truncation size. Any SPAN packet larger than the configured size is truncated to the configured size.



Note MTU Truncation is not supported for SPAN-on-Drop sessions.

#### Procedure

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	switch(config) # monitor session session-number	Enters monitor configuration mode and specifies the SPAN session for which the MTU truncation size is to be configured.
Step 3	switch(config-monitor) # [no] mtu	Configures the MTU truncation size for packets in the specified SPAN session. The range is from 64 to 1518 bytes.
Step 4	(Optional) switch(config-monitor) # show monitor session session-number	Displays the status of SPAN sessions, including the configuration status of MTU truncation, the maximum bytes allowed for each packet per session, and the modules on which MTU truncation is and is not supported.
Step 5	(Optional) switch(config-monitor) # copy running-config startup-config	Copies the running configuration to the startup configuration.

#### Example

This example shows how to configure MTU truncation for a SPAN session:

```
switch# configure terminal
switch(config) # monitor session 3
switch(config-monitor) # mtu
switch(config-monitor) # copy running-config startup-config
switch(config-monitor) #
```

### **Configuring the Rate Limit for SPAN Traffic**

By configuring a rate limit for SPAN traffic to 1Gbps across the entire monitor session, you can avoid impacting the monitored production traffic.

On Nexus 5000 series switches:

- When spanning more than 1Gbps to a 1 Gb SPAN destination interface, SPAN source traffic will not drop.
- When spanning more than 6 Gbps (but less than 10Gbps) to a 10Gb SPAN destination interface, the SPAN traffic is limited to 1Gbps even though the destination/sniffer is capable of 10Gbps.

The **switchport monitor rate-limit** interface command is not applicable on the Nexus 5500 device. The rate limit for SPAN traffic takes place at the SPAN source port on a Nexus 5500 device to avoid impacting monitored production traffic:

- SPAN is rate-limited to 5 Gbps for every 8 ports (one ASIC).
- RX-SPAN is rate-limited to 0.71 Gbps per port when the RX-traffic on the port exceeds 5 Gbps.

#### Procedure

	Command or Action	Purpose	
Step 1	switch# configure terminal	Enters global configuration mode.	
Step 2	<pre>switch(config)# interface ethernet slot/port</pre>	Enters interface configuration mode for the specified Ethernet interface selected by the slo and port values.	
		<b>Note</b> If this is a QSFP+ GEM or a breakout port, the <i>port</i> syntax is <i>QSFP-module/port</i> .	
Step 3	switch(config-if)# switchport monitor rate-limit 1G	Specifies that the rate limit is 1 Gbps.	
Step 4	switch(config-if)# exit	Reverts to global configuration mode.	

#### Example

This example shows how to limit the bandwidth on Ethernet interface 1/2 to 1 Gbps:

```
switch(config)# interface ethernet 1/2
switch(config-if)# switchport monitor rate-limit 1G
switch(config-if)#
```

## **Configuring Source Ports**

A source port can be an Ethernet port, port channel, Fiber Channel ports, SAN port channel, VLAN, or a VSAN port. It cannot be a destination port.

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	<pre>switch(config) # monitor session session-number</pre>	Enters monitor configuration mode for the specified monitoring session.
Step 3	switch(config-monitor) # source interface type slot/port [rx   tx   both]	Adds an Ethernet SPAN source port and specifies the traffic direction in which to duplicate packets. You can enter a range of

Command or Action	Purpose	
	Ethernet, Fi Channel po direction to (Tx), or bot	bre Channel, or virtual Fibre rts. You can specify the traffic duplicate as ingress (Rx), egress h. By default, the direction is both.
	Note	If this is a QSFP+ GEM or a breakout port, the <i>port</i> syntax is <i>QSFP-module/port</i> .

#### Example

The following example shows how to configure a Fibre Channel SPAN source port:

```
switch# configure terminal
switch(config)# monitor session 2
switch(config-monitor)# source interface fc 2/1
switch(config-monitor)#
```

The following example shows how to configure a virtual Fibre Channel SPAN source port:

```
switch# configure terminal
switch(config)# monitor session 2
switch(config-monitor)# source interface vfc 129
switch(config-monitor)#
```

### **Configuring Source Port Channels, VSANs, or VLANs**

You can configure the source channels for a SPAN session. These ports can be port channels SAN port channels, VSANs and VLANs. The monitored direction can be ingress, egress, or both and applies to all physical ports in the group.

#### Procedure

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	<pre>switch(config) # monitor session session-number</pre>	Enters monitor configuration mode for the specified SPAN session.
Step 3	<pre>switch(config-monitor) # source {interface {port-channel   san-port-channel} channel-number [rx   tx   both]   vlan vlan-range   vsan vsan-range }</pre>	Configures port channel, SAN port channel, VLAN, or VSAN sources. For VLAN or VSAN sources, the monitored direction is implicit.

#### Example

The following example shows how to configure a port channel SPAN source:

```
switch# configure terminal
switch(config)# monitor session 2
switch(config-monitor)# source interface port-channel 1 rx
switch(config-monitor)# source interface port-channel 3 tx
switch(config-monitor)# source interface port-channel 5 both
switch(config-monitor)#
```

This example shows how to configure a SAN port channel SPAN source:

```
switch(config-monitor)#switch# configure terminal
switch(config)# monitor session 2
switch(config-monitor)# source interface san-port-channel 3 rx
switch(config-monitor)#
```

The following example shows how to configure a VLAN SPAN source:

```
switch# configure terminal
switch(config)# monitor session 2
switch(config-monitor)# source vlan 1
switch(config-monitor)#
```

switch(config-monitor)#This example shows how to configure a VSAN SPAN source:

switch(config-monitor)#switch# configure terminal switch(config)# monitor session 2 switch(config-monitor)# source vsan 1 switch(config-monitor)#

### **Configuring the Description of a SPAN Session**

For ease of reference, you can provide a descriptive name for a SPAN session.

#### Procedure

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	switch(config) # monitor session session-number	Enters monitor configuration mode for the specified SPAN session.
Step 3	switch(config-monitor) # <b>description</b> <i>description</i>	Creates a descriptive name for the SPAN session.

#### Example

The following example shows how to configure a SPAN session description:

```
switch# configure terminal
switch(config) # monitor session 2
switch(config-monitor) # description monitoring ports eth2/2-eth2/4
switch(config-monitor) #
```

### **Configuring a SPAN-on-Drop Session**

Use the monitor session command to configure a SPAN-on-Drop session. Each session is identified by a unique SPAN-on-Drop session number.

Note

There can only be one active SPAN-on-Drop or SPAN-on-Drop ERSPAN session at any time.



Note

You can configure more than one destination for a SPAN-on-Drop sessions.

#### Procedure

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	<pre>switch(config) # monitor session span-on-drop-session-number type span-on-drop</pre>	Enters SPAN-on-Drop monitor configuration mode for the specified SPAN-on-drop session.
Step 3	switch(config-span-on-drop) # <b>description</b> <i>description</i>	Creates descriptive name for the SPAN-on-Drop session.
Step 4	switch(config-span-on-drop)#source interface ethernet <i>slot/port</i> rx	Configures session sources. You can enter a range of Ethernet ports. SPAN-on-Drop sessions supports ingress traffic only.
Step 5	<pre>switch(config-span-on-drop) # destination interface ethernet slot/port</pre>	Configures the Ethernet SPAN-on-Drop destination port.
Step 6	(Optional) switch(config) # show monitor session session-number	Displays the status of SPAN-on-Drop sessions.
Step 7	(Optional) switch(config) # copy running-config startup-config	Copies the running configuration to the startup configuration.

#### Example

This example shows how to configure a SPAN-on-Drop session:

```
switch# configure terminal
switch(config) # monitor session 3 type span-on-drop
switch(config-span-on-drop) # description span-on-drop-session_3
switch(config-span-on-drop) # source interface ethernet 1/3
switch(config-span-on-drop) # destination interface ethernet 1/2
switch(config) # copy running-config startup-config
switch(config) #
```

## **Configuring a SPAN-on-Latency Session**

You can configure a maximum transmission unit (MTU) size for the SPAN traffic to reduce the amount of fabric or network bandwidth used in sending SPAN packets.

	Command or Action	Purpose		
Step 1	enable	Enables privileged EXEC mode. Enter your		
	Example:	password if prompted.		
	switch> enable			
Step 2	configure terminal	Enters global configuration mode.		
	Example:			
	<pre>switch# configure terminal switch(config)#</pre>			
Step 3	interface ethernet <i>slot/port</i>	Enters interface configuration mode.		
	Example:			
	<pre>switch(config)# interface ethernet 1/1</pre>			
Step 4	packet latency threshold threshold	Configures the latency threshold value on an		
	Example:	interface. Valid values are from 8 to		
	<pre>switch(config-if)# packet latency threshold 53000000</pre>	550670504 nano seconds.		
Step 5	<pre>monitor session session_number type span-on-latency</pre>	Defines a SPAN source session using the session ID and the session type, and places the command in SPAN monitor source session configuration mode.		
	Example:			
	<pre>switch(config)# monitor session 1 type span-on-latency</pre>	The session_number argument range is from 1 to 1024. The same session number cannot		
	<pre>switch(config-span-on-latency)#</pre>	be used more than once.		
		The session ID (configured by the		
		session type (configured by the		
		span-on-latency keyword) cannot be changed		
		type, use the no version of the command to		
		remove the session and then re-create the		
		session through the command with a new session ID or a new session type.		
Step 6	description description	Adds a description to the session configuration.		
	Example:			
	<pre>switch(config-span-on-latency)#</pre>			
	description SPAN-on-Latency-session			

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	Command or Action	Purpose	
Step 7	<pre>source interface ethernet slot/port Example: switch(config-span-on-latency)# source interface ethernet 1/3</pre>	Specifies the Ethernet interface to use as the source SPAN port.	
Step 8	<pre>destination interface ethernet slot/port Example: switch(config-span-on-latency)# destination interface ethernet 1/1</pre>	Specifies the Ethernet interface to use as the session destination port.	
Step 9	<pre>mtu mtu-value Example: switch(config-span-on-latency)# mtu 1500</pre>	Defines the MTU truncation size for SPAN packets. Valid values are from 64 to 1518. The default is no truncation enabled.	
Step 10	<pre>exit Example: switch(config-span-on-latency)# exit</pre>	Updates the configuration and exits SPAN-on-Latency session configuration mode.	
Step 11	<pre>(Optional) copy running-config startup-config Example: switch(config)# copy running-config startup-config</pre>	Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration.	

## **Activating a SPAN Session**

The default is to keep the session state shut. You can open a session that duplicates packets from sources to destinations.

#### Procedure

	Command or Action	Purpose	
Step 1	switch# configure terminal	Enters global configuration mode.	
Step 2	<pre>switch(config) # no monitor session {all   session-number} shut</pre>	Opens the specified SPAN session or all sessions.	

#### Example

The following example shows how to activate a SPAN session:

```
switch# configure terminal
switch(config) # no monitor session 3 shut
```

## **Suspending a SPAN Session**

By default, the session state is **shut**.



Note

The Cisco Nexus switch supports two active SPAN sessions. The Cisco Nexus 5548 Switch supports four active SPAN sessions. When you configure more than two SPAN sessions, the first two sessions are active. During startup, the order of active sessions is reversed; the last two sessions are active. For example, if you configured ten sessions 1 to 10 where 1 and 2 are active, after a reboot, sessions 9 and 10 will be active. To enable deterministic behavior, explicitly suspend the sessions 3 to 10 with the **monitor session** *session-number* **shut** command.

#### Procedure

	Command or Action	Purpose	
Step 1	switch# configure terminal	Enters global configuration mode.	
Step 2	<pre>switch(config) # monitor session {all   session-number} shut</pre>	Suspends the specified SPAN session or all sessions.	

#### Example

The following example shows how to suspend a SPAN session:

```
switch# configure terminal
switch(config) # monitor session 3 shut
switch(config) #
```

## **Troubleshooting SPAN session issues**

If a SPAN session is down, do the following:

- Check if one of the destination port is operational by performing the following:
  - Use the **show running interface** *interface* command and check if the switchport monitor is configured.
  - Use the **show interface** *interface* command and check if the destination interface shows the status as "admin up".
- Use the **show interface** *interface* command to check if one of the source port is operational and if the source interface shows the status as "admin up".
- If ACL filter is applied, check if the filter definition exists. Use the **show access-lists** *listname* command to check the configured access list with entries

### Troubleshooting SPAN session with large number of source ports issues

Problem Description	Solution	Recommendation
When a SPAN session is configured with maximum supported range of 128 source ports at one go, the configuration session may encounter "Service not responding" message.	Remove the ports and configure them in smaller ranges (example, 1 to 48) and then use the <b>shutdown</b> and <b>no shutdown</b> command on the session.	Configure the individual ports in small ranges (example, 1 to 48).
After using the shutdown and then no shutdown on a range of SPAN session configured with maximum of ports (example, 128), some sessions do not come up.	Remove some ports from the specific SPAN session. Add the removed ports back to the same SPAN session and then use the <b>no shutdown</b> command.	Use the <b>shutdown</b> command on each port.
After creating a SPAN session with 128 source ports, the <b>no shutdown</b> command displays a "Service not responding" message.	Use the <b>no shutdown</b> command repeatedly to bring up the SPAN session.	

Table 1: Troubleshooting SPAN session with large number of source ports

# **Displaying SPAN Information**

	Command or Action	Purpose	
Step 1	switch# show monitor [session {all	Displays the SPAN configuration.	
	<pre>session-number   range session-range } [brief]]</pre>		

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#### Example

The following example shows how to display SPAN session information:

switch# SESSION 	show monitor STATE	REASON	DESCRIPTION
2	up	The session is up	
3	down	Session suspended	
4	down	No hardware resource	

The following example shows how to display SPAN session details:

switch# show monit	:01	r session 2
session 2		
type	:	local
state	:	up
acl-name	:	acl1
source intf	:	
rx	:	fc3/1
tx	:	fc3/1
both	:	fc3/1
source VLANs	:	
rx	:	
source VSANs	:	
rx	:	1
destination ports	:	Eth3/1

## **Configuration Example for SPAN-on-Latency Session**

This example shows how to configure an SPAN-on-Latency session:

```
switch# configure terminal
switch(config) # interface ethernet 1/1
switch(config-if) # packet latency threshold 530000000
switch(config) # monitor session 11 type span-on-latency
switch(config-span-on-latency) # description span-on-latency-session_11
switch(config-span-on-latency) # source interface ethernet 1/3
switch(config-span-on-latency) # destination interface ethernet 1/1
switch(config-span-on-latency) # mtu 1500
switch(config) # copy running-config startup-config
switch(config) #
```

Configuration Example for SPAN-on-Latency Session