

FSOS

sFlow Configuration

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1. sFlow Configuration

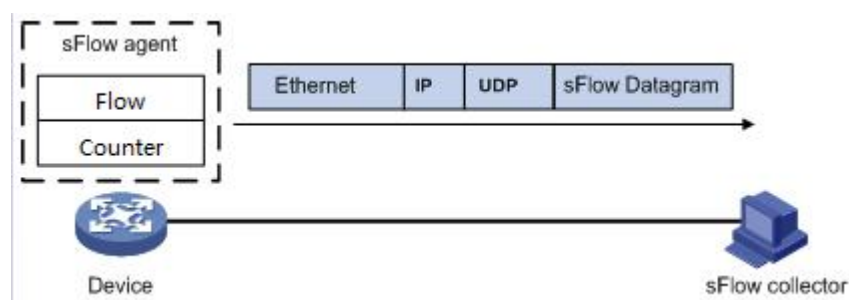
1.1 sFlow Overview

sFlow is a network traffic monitoring technology based on packet sampling, which is mainly used for statistical analysis of network traffic.

As shown in the figure, the sFlow system consists of the sFlow Agent embedded in the device and the remote sFlow Collector. The sFlow agent obtains the statistics and packet information of the interface through the sampling mechanism, encapsulates the information into sFlow packets. When the sFlow packet buffer is full or the sFlow packet sending timer (Timer interval is fixed to 1 second) expires, the sFlow packet is encapsulated in UDP packet and sent to the specified sFlow Collector. The sFlow Collector analyzes the sFlow packet and displays the analysis result. An sFlow Collector can monitor multiple sFlow Agents.

sFlow uses the following two sampling mechanisms:

- Flow Sampling: Packet-based stream sampling is used to obtain information about the contents of the packet.
- Counter Sampling: Time-based interface statistics sampling is used to obtain the interface statistics.



1.2 sFlow Configuration

1.2.1 Configure sflow agent IP

The IP address of the sFlow agent is the source IP address that the Switch communicates with the remote sFlow Collector. The IP address must be the IP address of the Switch itself. You can configure only one IP address for the sFlow agent on the device. The newly configured IP address overwrites the existing configuration.

Operation	Command	Remarks
Enter the global mode	configure terminal	
Configure the sflow agent IP	sflow agent ip <i>A.B.C.D</i>	
Delete the sflow agent IP	no sflow agent ip	

【For example】

For example:

! Configure the IP address of the sflow agent to 1.1.1.1

```
switch(config)#sflow agent ip 1.1.1.1
```

1.2.2 Configure sFlow Collector

sflow collector is used to monitor the traffic of the Switch device. The Switch must be configured with sflow collector ip and port number.

Operation	Command	Remarks
Enter global configuration mode	configure terminal	
Configure the sflow collector ip and port	sflow collector <i>id ip ip-address [port</i>	

number	<i>port-number]</i>	
Delete the sflow collector	no sflow agent ip	

【Parameter Description】

id: collector number (in the range of 1-10)

ip-address: the IP address of the collector

port-number: The port where the collector listens for sflow packets (6343 by default)

【For example】

For example:

! Configure the collector with the number 2, IP address 1.1.1.2 and port number 6345

```
switch (config)#sflow collector 2 ip 1.1.1.2 port 6345
```

1.2.3 Configure sflow sampling-rate

This command is used to configure the packet sampling rate for Flow sampling, that is, a packet is sampled in rate packets and the Flow sampling function is enabled. Flow Sampling uses the random sampling mode.

Operation	Command	Remarks
Enter global configuration mode	configure terminal	
Enter port configuration mode	interface ethernet device/slot/port	
Configure the sampling rate of the Flow packet	sflow sampling-rate <i>rate</i>	
Delete the sampling of the Flow packet	no sflow sampling-rate	

【For example】

For example:

! Configure the Flow sampling rate of port 2 to be one per 3000 packets

```
switch (config-if-ethernet-0/0/2)#sflow sampling-rate 3000
```

1.2.4 Configure sflow flow max-header

This command is used to configure the maximum number of bytes that can be copied from the head of the original packet when Flow sampling performs packet content copying. By default, the maximum number of bytes that can be copied is 128 bytes.

Operation	Command	Remarks
Enter global configuration mode	configure terminal	
Enter port configuration mode	interface ethernet device/slot/port	
Configure the content copy length of the Flow packets	sflow flow max-header <i>length</i>	
Restore the default	no sflow flow max-header	

【Parameter Description】

length: Maximum number of bytes allowed to be copied (in the range 18-512)

【For example】

For example:

! Configure the maximum number of bytes that can be copied to 200 for Flow sampling on port 2

```
switch (config-if-ethernet-0/0/2)#sflow flow max-header 200
```

1.2.5 Configure sflow flow collector

Flow sampling and sFlow Collector are bound by the collector number

Operation	Command	Remarks
Enter global configuration mode	configure terminal	
Enter port configuration mode	interface ethernet device/slot/port	
Configuration	sflow flow collector <i>id</i>	
Restore the default	no sflow flow collector	

1.2.6 Configure sflow counter interval

The Switch can also be sampled at regular intervals.

Operation	Command	Remarks
Enter global configuration mode	configure terminal	
Enter port configuration mode	interface ethernet device/slot/port	
Configure the counter sampling interval	sflow counter interval time	
Restore the default	no sflow counter interval	

1.2.7 Configure sflow counter collector

This command is used to configure the collector number of the counter sampling. The

no form of this command cancels this setting.

Operation	Command	Remarks
Enter global configuration mode	configure terminal	
Enter port configuration mode	interface ethernet device/slot/port	
Configure the Counter sampling number	sflow counter collector <i>id</i>	
Delete the Counter sample number	no sflow counter collector	

【For example】

For example:

! Set the collector number of the port counter sampling to 1

switch (config-if-ethernet-0/0/2)#sflow counter collector 1

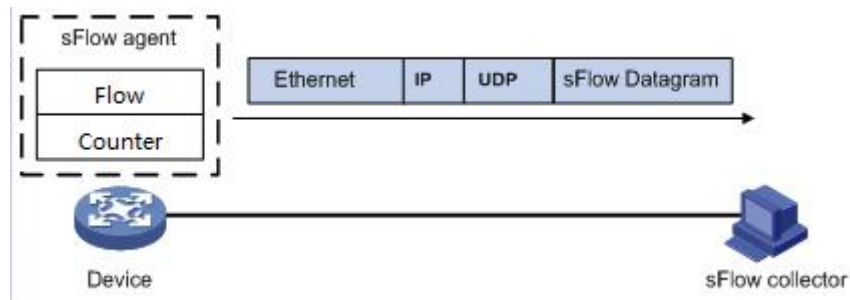
1.2.8 The Command of show sflow

This command is used to display the sflow configuration

Operation	Command	Remarks
Any mode	show sflow	

1.3 Example

Device ip = 192.168.2.1; PC as sflow collector, IP = 192.168.2.100



Configure the device ip
 switch(config)#interface vlan-interface 2
 Create vlan-interface successfully!

switch(config-if-vlanInterface-2)#ip address 192.168.2.1 255.255.255.0
 This ipaddress will be the primary ipaddress of this interface.
 Config ipaddress successfully

Set the sflow agent ip
 switch(config)#sflow agent ip 192.168.2.1

Configure sflow collector ip
 switch(config)#sflow collector 1 ip 192.168.2.100 port 6000
 Port configuration
 switch(config-if-ethernet-0/0/3)#sflow counter collector 1