1 sFlow Commands

Command	Function
sflow agent	Configure the sFlow Agent address.
sflow collector destination	Configure the sFlow Collector address.
sflow collector max-datagram-size	Configure the maximum size of an output sFlow packet.
sflow counter collector	Configure the ID of the sFlow Collector for sFlow counter sampling.
sflow counter interval	Configure the interval for sFlow counter sampling.
sflow enable	Enable the sFlow function on an interface.
sflow flow collector	Configure the ID of the sFlow Collector for sFlow flow sampling.
sflow flow max-header	Configure the maximum length of the packet header copied during sFlow flow sampling.
sflow sampling-rate	Configure the sFlow flow sampling rate.
sflow source	Configure the source address of output sFlow packets.
show sflow	Display the sFlow configurations.

1.1   sflow agent

Function

Run the **sflow agent** command to configure the sFlow Agent address.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

No sFlow Agent address is configured by default.

Syntax

sflow agent { **address** { *ipv4-address* | **ipv6** *ipv6-address* } | **interface** [**ipv6**] *interface-type interface-number* }

no sflow agent { **address** | **interface** }

default sflow agent { **address** | **interface** }

Parameter Description

address { *ipv4-address* | **ipv6** *ipv6-address* }: Configures an IP address as the sFlow Agent address.

Here, *ipv4-address* indicates the IPv4 address of the sFlow Agent. **ipv6** *ipv6-address* indicates the IPv6 address of the sFlow Agent.

interface [**ipv6**] *interface-type interface-number*: Configures an interface as the sFlow Agent address.

Here, *interface-type interface-number* indicates the type and number of an interface configured with the IPv4 address. **ipv6** *interface-type interface-number* indicates the type and number of an interface configured with the IPv6 address.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command is used to configure the **Agent ip address** field in an output packet. If the sFlow Agent address is not configured, the packet cannot be output. The address must be a host IP address. If it is set to a non-host IP address, for example, a multicast or broadcast address, a notification indicating the configuration error is displayed. It is recommended that the IP address of the sFlow Agent device be configured as the sFlow Agent address.

Examples

The following example sets the sFlow Agent address to 192.168.2.1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow agent address 192.168.2.1
```

Notifications

If an invalid address is configured, the following notification will be displayed:

```
invalid host address.
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.2   sflow collector destination

Function

Run the **sflow collector destination** command to configure the sFlow Collector address.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

No sFlow Collector address is configured by default.

Syntax

sflow collector *collector-id* **destination** { *ipv4-address* | **ipv**6 *ipv6-address* } *udp-port-number* [**vrf** *vrf-name*] [**description** *collector-description*]

no sflow collector *collector-id* **destination** { *ipv4-address* | **ipv6** *ipv6-ddress* } *udp-port-number* [**vrf** *vrf-name*] [**description** *collector-name*]

default sflow collector *collector-id* **destination** { *ipv4-address* | **ipv6** *ipv6-address* } *udp-port-number* [**vrf** *vrf-name*] [**description** *collector-description*]

Parameter Description

collector-id: ID of the sFlow Collector. The value range is from 1 to 2.

ipv4-address: IPv4 address of the sFlow Collector.

ipv6 *ipv6-address*: Specifies the IPv6 address of the sFlow Collector.

udp-port-number: Number of a UDP port. The value range is from 1 to 65535.

vrf *vrf-name*: Specifies the name of a VRF instance.

description *collector-description*: Specifies the description of the sFlow Collector.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

- The sFlow Agent address must be a valid address. That is, the sFlow Agent address cannot be a multicast or broadcast address. It is recommended that the IP address of the sFlow Agent device be used.

- The sFlow Collector intercepts sFlow packets on the configured port.

- When the **vrf** parameter is configured, the corresponding VRF instance must be configured. If you configure a VRF instance for an sFlow Collector address and later remove this VRF instance, the sFlow Collector address will be removed as well.

Examples

The following example sets the address of sFlow Collector 1 to 192.168.2.100, listen port to 6343, and VRF instance name to vpn1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow collector 1 destination 192.168.2.100 6343 vrf vpn1
```

Notifications

If an invalid address is configured, the following notification will be displayed:

```
invalid host address.
```

If the VPN is not configured, the following notification will be displayed:

```
vpn is not exist
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.3   sflow collector max-datagram-size

Function

Run the **sflow collector max-datagram-size** command to configure the maximum size of an output sFlow packet.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

By default, the maximum size of the output sFlow packet is **1400**.

Syntax

sflow collector *collector-id* **max-datagram-size** *datagram-size*

no sflow collector *collector-id* **max-datagram-size**

default sflow collector *collector-id* **max-datagram-size**

Parameter Description

collector-id: ID of the sFlow Collector. The value is 1 or 2.

max-datagram-size *datagram-size*: Specifies the maximum size of an output sFlow packet. The value range is from 200 to 9000.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example sets the maximum size of an output sFlow packet to 1000 bytes for sFlow Collector 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow collector 1 max-datagram-size 1000
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.4   sflow counter collector

Function

Run the **sflow counter collector** command to configure the ID of the sFlow Collector for sFlow counter sampling.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

By default, no ID of the sFlow Collector is configured for sFlow counter sampling.

Syntax

sflow counter collector *collector-id*

no sflow counter collector

default sflow counter collector

Parameter Description

collector-id: ID of the sFlow Collector. The value range is from 1 to 2.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

● You must configure an IP address for the sFlow Collector before the sFlow packets can be output.

Examples

The following example outputs the sFlow counter sampling packets on the port GigabitEthernet 0/1 to sFlow Collector 2.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# sflow counter collector 2
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.5   sflow counter interval

Function

Run the **sflow counter interval** command to configure the interval for sFlow counter sampling.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The default interval for sFlow flow sampling is **30** seconds.

Syntax

sflow counter interval *sampling-interval-time*

no sflow counter interval

default sflow counter interval

Parameter Description

sampling-interval-time: Sampling interval, in seconds. The value range is from 3 to 2147483647.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command is used to configure the global interval for sFlow counter sampling. This configuration applies to all interfaces.

Examples

The following example sets the global interval for sFlow counter sampling to 60s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow counter interval 60
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.6   sflow enable

Function

Run the **sflow enable** command to enable the sFlow function on an interface.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The sFlow function is disabled by default.

Syntax

sflow enable [{ **ingress** | **egress** }

no sflow enable [{ **ingress** | **egress** }

default sflow enable [{ **ingress** | **egress** }

Parameter Description

ingress: Specifies inbound direction.

egress: Specifies outbound direction.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

● This command can be configured on a physical or an aggregation port.

● If the direction is not specified, flow sampling is enabled in both the inbound and outbound directions.

● The counter sampling and flow sampling functions are enabled concurrently. Counter sampling is enabled when flow sampling is enabled in any direction of an interface.

● You must configure an IP address for the sFlow Collector before the sFlow packets can be output.

● The following configuration is not recommended because flow sample statistics may be inaccurate (for example, the configuration may not take effect, or statistics of an interface is displayed on another interface):

○ Flow sampling is enabled on an aggregation port and its member port.

Examples

The following example enables the sFlow function on the GigabitEthernet 0/1 port.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# sflow enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.7 sflow flow collector

Function

Run the **sflow flow collector** command to configure the ID of the sFlow Collector for sFlow flow sampling.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

By default, no ID of the sFlow Collector is configured for sFlow flow sampling.

Syntax

sflow flow collector *collector-id*

no sflow flow collector

default sflow flow collector

Parameter Description

collector-id: ID the sFlow Collector. The value range is from 1 to 2.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

-
- You must configure an IP address for the sFlow Collector before the sFlow packets can be output.

Examples

The following example outputs the sFlow flow sampling packets on the port GigabitEthernet 0/1 to sFlow Collector 2.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# sflow flow collector 2
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.8   sflow flow max-header

Function

Run the **sflow flow max-header** command to configure the maximum length of the packet header copied during sFlow flow sampling.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

By default, the maximum length of the packet header copied during sFlow flow sampling is **64**.

Syntax

sflow flow max-header *sampling-length*

no sflow flow max-**header**

default sflow flow max-**header**

Parameter Description

sampling-length: Maximum length of the packet header copied, in bytes. The value range is from 18 to 256.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command is used to configure the maximum number of bytes that can be copied from the header of the original packet. The copied content is recorded in the generated sample. The protocol requires byte alignment during packet encapsulation, that is, the actual length of a sent packet is a multiple of 4. Therefore, the length of a collected packet may exceed the configured length. For example, when the maximum length is set to any of 21, 22, 23, and 24, the actual output packet length is 24.

Examples

The following example sets the maximum length of the packet header copied during sFlow flow sampling to 128 bytes.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow flow max-header 128
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.9   sflow sampling-rate

Function

Run the **sflow sampling-rate** command to configure the sFlow flow sampling rate.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The default sFlow flow sampling rate is 65536.

Syntax

sflow sampling-rate *sampling-rate*

no sflow sampling-rate

default sflow sampling-rate

Parameter Description

sampling-rate: sFlow flow sampling rate, which indicates that a packet is sampled from every *sampling-rate* packets. The value is 65536.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command is used to configure the global flow sampling rate. This configuration applies to all interfaces.

Examples

The following example sets the sFlow flow sampling rate to **4096**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow sampling-rate 4096
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.10   sflow source

Function

Run the **sflow source** command to configure the source address of output sFlow packets.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

By default, the source address of output sFlow packets is the local device IP address which is used to ping the destination IP address.

Syntax

sflow source { **address** { *ipv4-address* | **ipv6** *ipv6-address* } | **interface** [**ipv6**] *interface-type interface-number* }

no sflow source { **address** | **interface** }

default sflow source { **address** | **interface** }

Parameter Description

address { *ipv4-address* | **ipv6** *ipv6-address* }: Configures an IP address as the sFlow source address.

Here, *ipv4-address* indicates the IPv4 address of the sFlow source, which is not configured by default. **ipv6** *ipv6-address* indicates the IPv6 address of the sFlow source, which is not configured by default.

interface [**ipv6**] *interface-type interface-number*: Configures an interface as the sFlow source address.

interface-type interface-number indicates the type and number of an interface configured with the IPv4 address. **ipv6** *interface-type interface-number* indicates the type and number of an interface configured with the IPv6 address.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

- This command is used to configure the source IP address of output packets.
- By default, the source address of output sFlow packets is the local device IP address which is used to ping the destination IP address.
- If the source interface is specified, the primary address (or the first global IPv6 address if any) of the interface is the source IP address of output packets.
- If the source interface is not specified, the default source address is used.

Examples

The following example sets the sFlow source address to 192.168.2.1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# sflow source address 192.168.2.1
```

Notifications

If an invalid address is configured, the following notification will be displayed:

```
invalid host address.
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.11   show sflow

Function

Run the **show sflow** command to display the sFlow configurations.

Syntax

show sflow

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the sFlow configurations.

```
Hostname> enable
Hostname# show sflow
sFlow datagram version 5
Global information:
Agent IP: 10.10.10.10
sflow counter interval:30
sflow flow max-header:64
```

```
sflow sampling-rate:8192
Collector information:
ID    IP                              Port Size VPN
1     192.168.2.100                   6343 1400
2     NULL                            0    1400
Port information
Interface                       CID  FID  Enable
TenGigabitEthernet 0/1          0    1    B
TenGigabitEthernet 0/2          0    1    N
```

Table 1-1Output Fields of the show sflow Command

Field	Description
sFlow datagram version	sFlow packet version. The value is 5, indicating that only sFlow packets of version 5 can be sent.
Agent IP	IP address of the sFlow Agent
sflow counter interval	Counter sampling interval
sflow flow max-header	Maximum number of bytes that can be copied from the header of the original packet
sflow sampling-rate	Flow sampling rate
ID	sFlow Collector ID
IP	IP address of the sFlow Collector that receives the sFlow packets
Port	Port ID of the sFlow Collector that receives the sFlow packets
Size	Maximum size of the data part in an output sFlow packet
VPN	VPN instance name of the sFlow Collector
Interface	sFlow-enabled interface
CID	ID of the sFlow Collector to which the sFlow Agent outputs sFlow packets after counter sampling
FID	ID of the sFlow Collector to which the sFlow Agent outputs sFlow packets after flow sampling
Enable	Status of the sFlow function ● **B**: sFlow is enabled in both directions. ● **E**: sFlow is enabled in the outbound direction. ● **I**: sFlow is enabled in the inbound direction. ● **N**: sFlow is disabled.

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A