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Introduction

This document provides sFlow configuration examples.

Prerequisites

The configuration examples in this document were created and verified in a lab environment, and all the devices were started with the factory default configuration. When you are working on a live network, make sure you understand the potential impact of every command on your network.

This document assumes that you have basic knowledge of sFlow.

Restrictions and guidelines

When you configure sFlow, follow these restrictions and guidelines:

- You can specify only the random sampling mode (the default).
- For the remote sFlow collector to receive sFlow packets, the IP address of the sFlow collector specified on the sFlow agent must be the same with that of the remote sFlow collector.
- If the number of packets sampled by an interface is too much in a heavy traffic network, increase the flow sampling interval. If an interface samples insufficient packets in a light traffic network, decrease the flow sampling interval.
- If an interface collects data too frequently in a heavy traffic network, increase the counter sampling interval. If the sampling statistics is not accurate in a light traffic network, decrease the counter sampling interval.

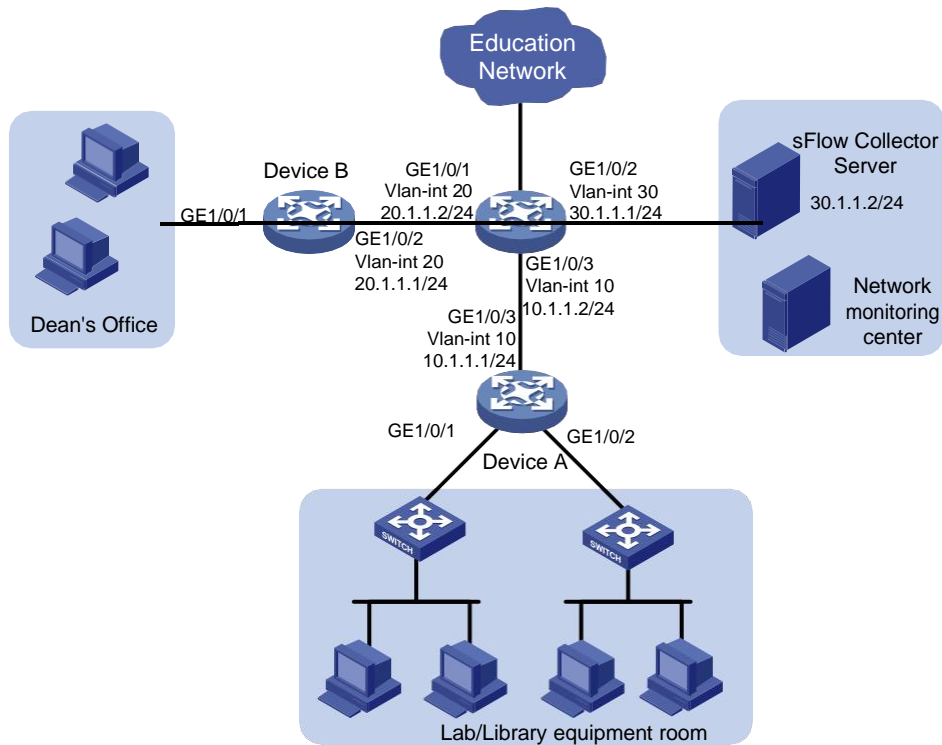
Example: Configuring sFlow

Network configuration

As shown in [Figure 1](#), perform the following tasks:

- Configure flow sampling to sample packets on Device A and Device B.
- Configure counter sampling to periodically collect the counter information on Device A and Device B.

Figure 1 Network diagram



Analysis

To obtain interface counter information and packet information, you must configure both flow sampling and counter sampling.

Applicable hardware and software versions

The following matrix shows the hardware and software versions to which this configuration example is applicable:

Hardware	Software version
SC 3570 switch series	Release 11xx
SC 5525 switch series	Release 63xx, Release 65xx, Release 6615Pxx, Release 6628Pxx
SC 5520 switch series	Release 63xx, Release 65xx, Release 6615Pxx, Release 6628Pxx
SC 3170 switch series	Release 11xx
SC 3130 switch series	Release 63xx

Procedures

Configuring Device A

Create VLAN 10. Assign GigabitEthernet 1/0/1 through GigabitEthernet 1/0/3 to VLAN 10.

```
<DeviceA> system-view
[DeviceA] vlan 10
```

```
[DeviceA-vlan10] port gigabitethernet 1/0/1 to gigabitethernet 1/0/3
[DeviceA-vlan10] quit
```

Assign an IP address to VLAN-interface 10.

```
[DeviceA] interface vlan-interface 10
[DeviceA-Vlan-interface10] ip address 10.1.1.1 255.255.255.0
[DeviceA-Vlan-interface10] quit
```

Assign IP addresses to other interfaces. (Details not shown.)

Assign an IP address to the sFlow agent.

```
[DeviceA] sflow agent ip 10.1.1.1
```

Specify the sFlow collector ID as 1, IP address as 30.1.1.2, and port number as 5000.

```
[DeviceA] sflow collector 1 ip 30.1.1.2 port 5000
```

Enable counter sampling and set the counter sampling interval to 120 seconds on GigabitEthernet 1/0/1.

```
[DeviceA] interface gigabitethernet 1/0/1
[DeviceA-GigabitEthernet1/0/1] sflow counter interval 120
```

```

# Specify sFlow collector 1 for counter sampling on GigabitEthernet 1/0/1.
[DeviceA-GigabitEthernet1/0/1] sflow counter collector 1
[DeviceA-GigabitEthernet1/0/1] quit

# Enable counter sampling and set the counter sampling interval to 120 seconds on GigabitEthernet 1/0/2.
[DeviceA] interface gigabitethernet 1/0/2
[DeviceA-GigabitEthernet1/0/2] sflow counter interval 120

# Specify sFlow collector 1 for counter sampling on GigabitEthernet 1/0/2.
[DeviceA-GigabitEthernet1/0/2] sflow counter collector 1
[DeviceA-GigabitEthernet1/0/2] quit

# Enable flow sampling and set the sampling interval to 10000 on GigabitEthernet 1/0/1.
[DeviceA] interface gigabitethernet 1/0/1
[DeviceA-GigabitEthernet1/0/1] sflow sampling-rate 10000

# Specify sFlow collector 1 for flow sampling on GigabitEthernet 1/0/1.
[DeviceA-GigabitEthernet1/0/1] sflow flow collector 1
[DeviceA-GigabitEthernet1/0/1] quit

# Enable flow sampling and set the sampling interval to 10000 on GigabitEthernet 1/0/2.
[DeviceA] interface gigabitethernet 1/0/2
[DeviceA-GigabitEthernet1/0/2] sflow sampling-rate 10000

# Specify sFlow collector 1 for flow sampling on GigabitEthernet 1/0/2.
[DeviceA-GigabitEthernet1/0/2] sflow flow collector 1
[DeviceA-GigabitEthernet1/0/2] quit

```

Configuring Device B

```

# Create VLAN 20. Assign GigabitEthernet 1/0/1 and GigabitEthernet 1/0/2 to VLAN 20.
<DeviceB> system-view
[DeviceB] vlan 20
[DeviceB-vlan20] port gigabitethernet 1/0/1 to gigabitethernet 1/0/2
[DeviceB-vlan20] quit

# Assign an IP address to VLAN-interface 20.
[DeviceB] interface vlan-interface 20
[DeviceB-Vlan-interface20] ip address 20.1.1.1 255.255.255.0
[DeviceB-Vlan-interface20] quit

# Assign an IP address to the sFlow agent.
[DeviceB] sflow agent ip 20.1.1.1

# Specify the sFlow collector ID as 1, IP address as 30.1.1.2, and port number as 5000.
[DeviceB] sflow collector 1 ip 30.1.1.2 port 5000

# Enable counter sampling and set the counter sampling interval to 30 seconds on GigabitEthernet 1/0/1.
[DeviceB] interface gigabitethernet 1/0/1
[DeviceB-GigabitEthernet1/0/1] sflow counter interval 30

# Specify sFlow collector 1 for counter sampling on GigabitEthernet 1/0/1.
[DeviceB-GigabitEthernet1/0/1] sflow counter collector 1

# Enable flow sampling and set the sampling interval to 20000 on GigabitEthernet 1/0/1.
[DeviceB-GigabitEthernet1/0/1] sflow sampling-rate 20000

```

```
# Specify sFlow collector 1 for flow sampling on GigabitEthernet 1/0/1.
```

```
[DeviceB-GigabitEthernet1/0/1] sflow flow collector 1
```

```
[DeviceB-GigabitEthernet1/0/1] quit
```

Verifying the configuration

```
# Verify the following items on Device A:
```

- GigabitEthernet 1/0/1 and GigabitEthernet 1/0/2 enabled with sFlow are active.
- The counter sampling interval is 120 seconds.
- The flow sampling interval is 10000.

```
[DeviceA] display sflow
```

```
sFlow datagram version: 5
```

```
Global information:
```

```
Agent IP: 10.1.1.1 (CLI)
```

```
Source address:
```

```
Collector information:
```

ID	IP	Port	Aging	Size	VPN-instance	Description
1	30.1.1.2	5000	N/A	1400		CLI Collector

```
Port counter sampling information:
```

Interface	Instance	CID	Interval(s)
GE1/0/1	1	1	120
GE1/0/2	1	1	120

GE1/0/1	1	1	120
GE1/0/2	1	1	120

```
Port flow sampling information:
```

Interface	Instance	FID	MaxHLen	Rate	Mode	Status
GE1/0/1	1	1	128	10000	Random	Active
GE1/0/2	1	1	128	10000	Random	Active

Configuration files



IMPORTANT:

Support for the **port link-mode bridge** command depends on the device model.

- Device A:

```
#
```

```
vlan 10
```

```
#
```

```
interface Vlan-interface10
```

```
ip address 10.1.1.1 255.255.255.0
```

```
#
```

```
sflow agent ip 10.1.1.1
```

```
sflow collector 1 ip 30.1.1.2 port 5000 description "CLI Collector"
```

```
#
```

```
interface GigabitEthernet1/0/1
```

```
port link-mode bridge
```

```
port access vlan 10
```

```
sflow flow collector 1
```

```
sflow sampling-rate 10000
```

```

sflow counter collector 1
sflow counter interval 120
#
interface GigabitEthernet1/0/2
port link-mode bridge
port access vlan 10
sflow flow collector 1
sflow sampling-rate 10000
sflow counter collector 1
sflow counter interval 120
#
interface GigabitEthernet1/0/3
port link-mode bridge
port access vlan 10
#

```

- **Device B:**

```

#
vlan 20
#
interface Vlan-interface20
ip address 20.1.1.1 255.255.255.0
#
sflow agent ip 20.1.1.1
sflow collector 1 ip 30.1.1.2 port 5000 description "CLI Collector"
#
interface GigabitEthernet1/0/1
port link-mode bridge
port access vlan 20
sflow flow collector 1
sflow sampling-rate 20000
sflow counter collector 1
sflow counter interval 30
#
interface GigabitEthernet1/0/2
port link-mode bridge
port access vlan 20
#

```