SFLOW (sampled flow)

SFLOW(sampled flow), Network packet information is acquired by sampling so that
the network administrator can understand the operation status of the network.

Topology:
mceclip0.png

Procedure:
Step 1: Make sure the COPP rule is correct in the SWSS container.

Access the SWSS container.

```
admin@sonic:~$ docker exec -it swss bash
root@sonic:/#
```

Checking the copp.json.j2, this file is at /usr/share/sonic/templates.

```
[
omitted...
    {
        "COPP_TABLE:trap.group.sflow": {
            "trap_ids": "sample_packet",
            "trap_action":"trap",
            "trap_priority":"1",
            "queue": "2",
            "meter_type":"packets",
            "mode":"sr_tcm",
            "cir":"1000",
            "cbs":"1000",
            "red_action":"drop",
            "genetlink_name":"psample",
            "genetlink_mcgrp_name":"packets"
        },
        "OP": "SET"
    }
]
```
Caution:

If you modify the copp.json.j2, please reboot the switch to activate it.
After 202006.1, please skip this step.
Step 2: Configure the IP address on the Ethernet0 ( refer to Management IP
address)

Step 3: Enable the sFlow.

```
admin@sonic:~$ sudo config sflow enable
```
Step 4: Add the sFlow collector.

```
admin@sonic:~$ sudo config sflow collector add test 192.168.2.2
```
Result
```
admin@sonic:~$ show sflow

sFlow Global Information:
  sFlow Admin State:          up
  sFlow Polling Interval:     default
  sFlow AgentID:              default

  1 Collectors configured:
    Name: test                  IP addr: 192.168.100.2   UDP port: 6343   VRF:
default
admin@sonic:~$ show sflow interface

sFlow interface configurations
```

```
+-------------+---------------+-----------------+
| Interface   | Admin State   |  Sampling Rate  |
+=============+===============+=================+
| Ethernet0   | up            |            2500 |
+-------------+---------------+-----------------+
omitted...
+-------------+---------------+-----------------+
| Ethernet76  | up            |           10000 |
+-------------+---------------+-----------------+


Appendix:
To specify the VRF of the collector, please add "--vrf" option

admin@sonic:~$ sudo config sflow collector add test 188.188.8.91 --vrf mgmt

admin@sonic:~$ show sflow

sFlow Global Information:
 sFlow Admin State: up
 sFlow Polling Interval: default
 sFlow AgentID: default

 1 Collectors configured:
 Name: test IP addr: 188.188.8.91 UDP port: 6343 VRF: mgmt
Note:

1. If the mgmt VRF doesn't be created yet, the default VRF will be used to
conntect to server.

2. Only support with default VRF and mgmt VRF.
```