YAME

Multicast Tester

Multicast Sender

- The multicast main source is from the internet search, maybe https://pymotw.com/2/socket/multicast.html
- Use python3 because of encoding issue.
- tested on MAC, windows10 and Linux.

Multicast Receiver

- The multicast main source is from the internet search, maybe https://pymotw.com/2/socket/multicast.html

- Use python3 because of encoding issue.
- MAC, windows10, Linux

- When the code is executed, <IGMP report> is sent.
- When the code is stopped, <IGMP leave> is sent.

- Validation
  - <data2> is the value. coming from the sender.
  - <old> is expected value.
  - If both are same, print <data> and <time>.
  - If not, it prints <#### wrong ####>.

- So, I can know **when the packet is lost and the multicast has an issue at the real time.**

- First of all, set the NTP (Network Time Protocol> at the all devices (server, client and network device.)

Tester Options

- Multicast IP address : in this example, 224.3.29.71
- Port : in this example, 1000
- TTL (Time To Live) : in this example, 10

- Interval : in this example, 0.5 second

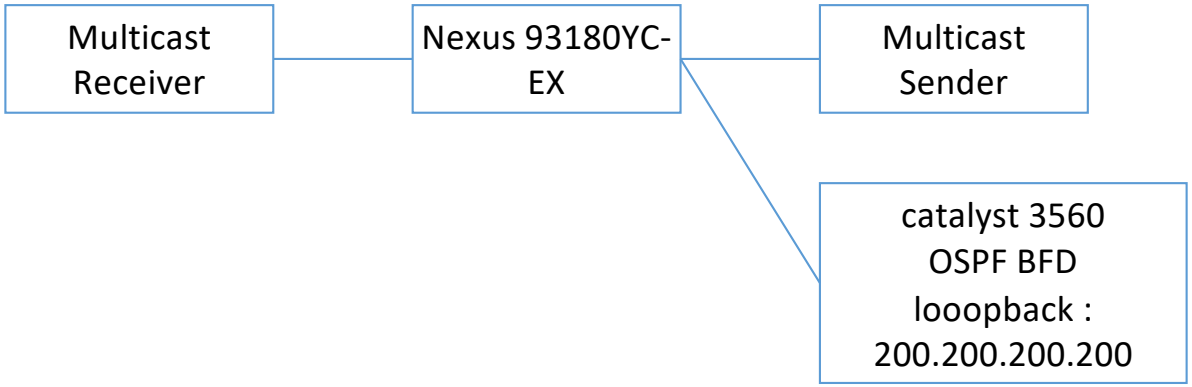
Linux IGMPv2 version (Ubuntu 18, all interfaces) @receiver

```
wankim@wankim:~$ cat /proc/sys/net/ipv4/conf/all/force_igmp_version
0
wankim@wankim:~$ sudo su
[sudo] password for wankim:
root@wankim:/home/wankim# echo 2 > /proc/sys/net/ipv4/conf/all/force_igmp_version
root@wankim:/home/wankim# cat /proc/sys/net/ipv4/conf/all/force_igmp_version
2
```

290	09:40:21.562905	192.168.189.25	224.0.0.22	IGMPv3	60	Membership Report / Join group 224.3.29.71 for any sources
291	09:40:21.705900	192.168.189.1	192.168.189.255	UDP	305	54915 → 54915 Len=263
292	09:40:22.306246	192.168.189.25	224.0.0.22	IGMPv3	60	Membership Report / Join group 224.3.29.71 for any sources
293	09:40:22.707271	192.168.189.1	192.168.189.255	UDP	305	54915 → 54915 Len=263

2178	09:47:28.895913	192.168.189.25	224.3.29.71	IGMPv2	60	Membership Report group 224.3.29.71
2179	09:47:29.705780	192.168.189.1	192.168.189.255	UDP	305	54915 → 54915 Len=263
2182	09:47:30.243233	192.168.189.1	192.168.189.25	TCP	66	62241 → 22 [ACK] Seq=3449502357 Ack=54
2184	09:47:30.243417	192.168.189.1	192.168.189.25	TCP	66	62241 → 22 [ACK] Seq=3449502357 Ack=54
2186	09:47:30.243666	192.168.189.1	192.168.189.25	TCP	66	62241 → 22 [ACK] Seq=3449502357 Ack=54
2187	09:47:30.246436	192.168.189.25	224.0.0.2	IGMPv2	60	Leave Group 224.3.29.71

Topology


Multicast Receiver
Nexus 93180YC-EX
Multicast Sender
catalyst 3560
OSPF BFD
looopback :
200.200.200.200