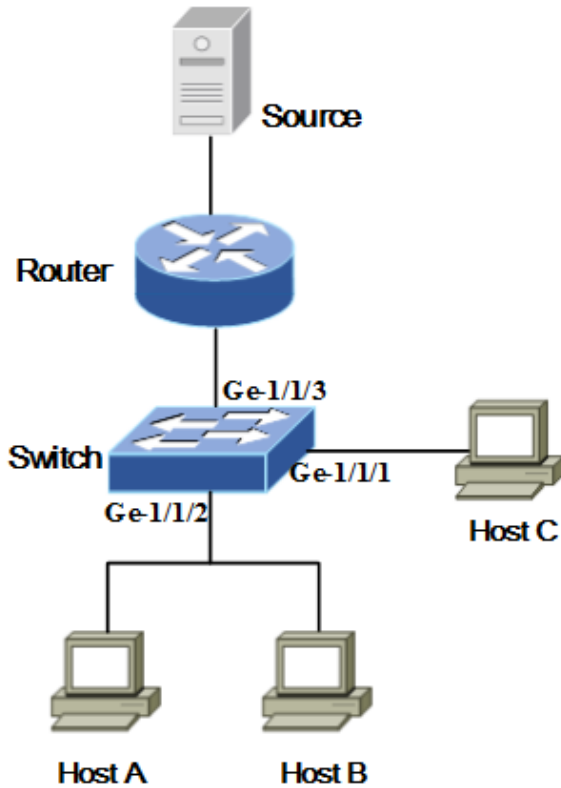


Configuration Example of IGMP Snooping

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Networking Requirements

Figure 1. IGMP Snooping Networking



As shown in Figure 1, Host A, Host B, and Host C connect to a multicast source through a Layer 2 Switch and a Layer 3 Router to receive multicast data from the Source device.

Perform the following procedures on the Switch to implement IGMP snooping:

- Create a VLAN and add interfaces Ge-1/1/1, Ge-1/1/2 and Ge-1/1/3 to the VLAN.
- Enable global and VLAN-based IGMP snooping function.
- Host C wants to receive multicast data from multicast group 238.255.0.1 stably for a long time, so configure the connecting interface Ge-1/1/1 as a static member port.
- To prevent aging of dynamic routing interfaces, configure Ge-1/1/3 as a static router port.

Procedure

Step1 Configure VLAN.

```
admin@XorPlus# set vlans vlan-id 2
admin@XorPlus# set interface gigabit-ethernet ge-1/1/1 family ethernet-switching native-vlan-id 2
admin@XorPlus# set interface gigabit-ethernet ge-1/1/2 family ethernet-switching native-vlan-id 2
admin@XorPlus# set interface gigabit-ethernet ge-1/1/3 family ethernet-switching native-vlan-id 2
```

Step2 Enable the global IGMP snooping function.

```
admin@Xorplus# set protocols igmp-snooping enable true
```

Step3 Enable the VLAN-based IGMP snooping function.

```
admin@Xorplus# set protocols igmp-snooping vlan-id 2 enable true
```

NOTE:

After the global IGMP snooping is enabled, IGMP snooping in the VLAN is disabled by default. To enable IGMP snooping in a VLAN, you also need to enable the VLAN-based IGMP snooping function.

After IGMP Snooping is enabled in a VLAN, it will take effect only on interfaces that have already been added to this VLAN.

Step4 (Optional) Configure the number of times that the querier sends a group-specific query message.

```
admin@Xorplus# set protocols igmp-snooping last-member-query-count 2
```

Step5 (Optional) Configure the interval that the querier sends a group-specific query message.

```
admin@Xorplus# set protocols igmp-snooping last-member-query-interval 2
```

Step6 (Optional) Configure the maximum response time for IGMP general queries.

```
admin@Xorplus# set protocols igmp-snooping max-response-time 10
```

Step7 (Optional) Configure the interval of sending an IGMP general queries.

```
admin@Xorplus# set protocols igmp-snooping query-interval 60
```

Step8 (Optional) Enable the membership report suppression function.

```
admin@Xorplus# set protocols igmp-snooping report-suppression true
```

Step9 (Optional) Configure the IGMP robustness coefficient.

```
admin@Xorplus# set protocols igmp-snooping robustness-variable 2
```

Step10 (Optional) Configure aging time of dynamic router port.

```
admin@Xorplus# set protocols igmp-snooping router-aging-time 260
```

Step11 (Optional) Enable the fast leave function to allow member ports in a VLAN to quickly leave the multicast group.

```
admin@Xorplus# set protocols igmp-snooping vlan-id 2 fast-leave true
```

Step12 (Optional) Configure the querier in the VLAN.

```
admin@Xorplus# set protocols igmp-snooping vlan-id 2 querier enable true
admin@Xorplus# set protocols igmp-snooping vlan-id 2 querier address 192.168.12.100
admin@Xorplus# set protocols igmp-snooping vlan-id 2 querier version 2
admin@Xorplus# set protocols igmp-snooping vlan-id 2 querier other-querier-timer 120
```

Step13 Configure the interface as a static router port in the specified VLAN.

```
admin@Xorplus# set protocols igmp-snooping vlan-id 2 mrouter interface ge-1/1/3
```

Step14 Configure a static member interface to the multicast group.

```
admin@Xorplus# set protocols igmp-snooping vlan-id 2 static group 238.255.0.1 interface ge-1/1/1
```

Verify the Configuration

- You can use the **run show igmp-snooping** command to view the configuration information of IGMP snooping.

```
admin@XorPlus# run show igmp-snooping
Global IGMP Snooping configuration:
-----
IGMP snooping           : Enabled
Report suppression     : Enabled
Robustness variable    : 2
Router aging time      : 260
Max response time      : 10
Query interval         : 60
Last member query count : 2
Last member query interval : 2

admin@XorPlus# run show igmp-snooping vlan 2
Vlan 2:
-----
IGMP snooping           : Enabled
IGMPv2 fast leave      : Enabled
IGMP querier state     : Enabled
IGMP querier source ip address : 192.168.12.100
IGMP other querier timer : 120
IGMP querier version   : 2
```

- You can use the **run show igmp-snooping groups** command to show information about multicast group member ports which is used for Layer 2 forwarding, namely, the Layer 2 forwarding table.

```
admin@XorPlus# run show igmp-snooping groups
Vlan      Group          Port List          Type
-----
2         238.255.0.1      ge-1/1/1          Static
                               ge-1/1/3          Mrouter
```

- You can use the **runshow igmp-snooping querier** command to show the configuration information and status of the querier.

```
admin@XorPlus# run show igmp-snooping querier vlan 2
Vlan 2: IGMP switch querier status
-----
admin state           : Enabled
admin version         : 2
source IP address     : 192.168.12.100
other querier timer   : 120
operational state     : Active
```

- You can use the **run show igmp-snooping mrouter** command to show the information about IGMP snooping router port.

```
admin@XorPlus# run show igmp-snooping mrouter
```

Vlan	Ports	Type
1	ge-1/1/3	Static