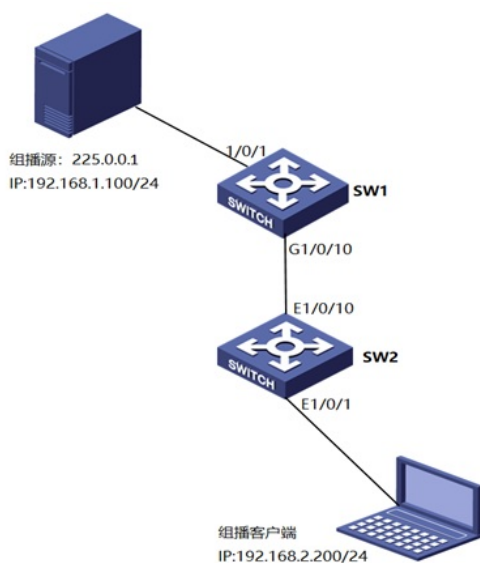## 组网及说明

1 配置需求或说明

1.1 适用产品系列

本案例适用于如S5008PV2-EI、S5024PV2-EI-PWR、S5048PV2-EI-HPWR、S5120-52P-LI、S5120-28P-SI、S5120-48P-EI等S5000PV2、S5120系列的交换机。

1.1 配置需求

公司内部部署了一台组播源，为保证终端能正常接收组播源传输的业务，需在所经交换机上开启组播功能。

2 组网图

组播源：225.0.0.1
IP:192.168.1.100/24

1/0/1
SW1

G1/0/10

E1/0/10

SW2

E1/0/1

组播客户端
IP:192.168.2.200/24

配置步骤

3 配置步骤

3.1 配置SW1的IP地址和互联路由

```
<H3C>system–view
#新建互联VLAN10
[H3C]vlan 10
#将10口加入到VLAN10
[H3C]interface Ethernet1/0/10
[H3C-Ethernet1/0/10]port access vlan 10
[H3C-Ethernet1/0/10]quit
#配置交换机间互联地址
[H3C]interface Vlan-interface10
[H3C-Vlan-interface10]ip address 172.16.10.1 255.255.255.0
[H3C-Vlan-interface10]quit
#配置与组播源互联地址
[H3C]interface Vlan-interface1
[H3C-Vlan-interface1]ip address 192.168.1.1 255.255.255.0
[H3C-Vlan-interface1]quit
#配置组播源与组播客户端互联路由
[H3C]ip route-static 192.168.2.0 255.255.255.0 172.16.10.2
```

3.2 SW1上开启组播路由功能，接口下使能PIM DM

```
#开启组播路由功能
[H3C]multicast routing-enable
#设备互联接口使能PIM-DM功能
[H3C]interface Vlan-interface10
```

[H3C-Vlan-interface10]pim dm

[H3C-Vlan-interface10]quit

\#连接组播源接口使能PIM功能

[H3C]interface Vlan-interface1

[H3C-Vlan-interface1]pim dm

[H3C-Vlan-interface1]quit

[H3C]save

配置SW2的IP地址和互联路由

<H3C>system-view

\#新建互联VLAN10

[H3C]vlan 10

\#将10口加入到VLAN10

[H3C]interface GigabitEthernet 1/0/10

[H3C-GigabitEthernet1/0/10]port access vlan 10

[H3C-GigabitEthernet1/0/10]quit

\#配置交换机间互联地址

[H3C]interface Vlan-interface10

[H3C-Vlan-interface10]ip address 172.16.10.2 255.255.255.0

[H3C-Vlan-interface10]quit

\#配置与组播客户端互联地址

[H3C]interface Vlan-interface1

[H3C-Vlan-interface1]ip address 192.168.2.1 255.255.255.0

[H3C-Vlan-interface1]quit

\#配置组播源与组播客户端互联路由

[H3C]ip route-static 192.168.1.0 255.255.255.0 172.16.10.1

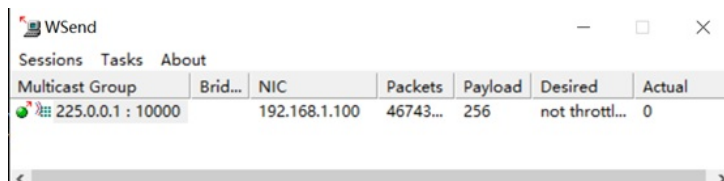### 3.3 SW2上开启组播路由功能，设备互联接口使能PIM-DM，组播接受者接口使能IGMP

\#开启组播路由功能
[H3C]multicast routing-enable
\#互联接口接口使能PIM-DM功能
[H3C]interface Vlan-interface10
[H3C-Vlan-interface10]pim dm
[H3C-Vlan-interface10]quit
\#连接组播客户端接口使能IGMP功能
[H3C]interface Vlan-interface1
[H3C-Vlan-interface1]igmp enable
[H3C-Vlan-interface1]quit
[H3C]save

3.4 检查配置结果

组播源：

通过使用display pim routing-table命令查看SW1 PIM路由表信息。

dis pim routing-table

 VPN-Instance: public net

 Total 0 (*, G) entry; 1 (S, G) entry

 (192.168.1.100, 225.0.0.1)

   Protocol: pim-dm, Flag: LOC ACT

   UpTime: 00:00:17

   Upstream interface: Vlan-interface1

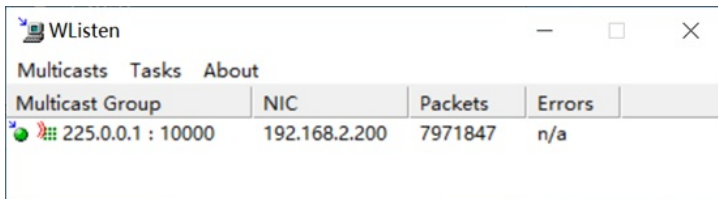   Upstream neighbor: NULL

     RPF prime neighbor: NULL

   Downstream interface(s) information:

   Total number of downstreams: 1

     1: Vlan-interface10

       Protocol: pim-dm, UpTime: 00:00:07, Expires: never

组播客户端:

通过使用display pim routing-table命令查看SW2 PIM路由表信息。

<H3C>dis pim routing-table
 VPN-Instance: public net
 Total 2 (*, G) entries; 1 (S, G) entry

 (*, 225.0.0.1)
     Protocol: pim-dm, Flag: WC EXT
     UpTime: 00:05:45
     Upstream interface: NULL
         Upstream neighbor: NULL
         RPF prime neighbor: NULL
     Downstream interface(s) information: None

 (192.168.1.100, 225.0.0.1)
     Protocol: pim-dm, Flag: EXT ACT
     UpTime: 00:08:12
     Upstream interface: Vlan-interface10
         Upstream neighbor: 172.16.10.1
         RPF prime neighbor: 172.16.10.1
     Downstream interface(s) information: None

 (*, 239.255.255.250)
     Protocol: pim-dm, Flag: WC EXT
     UpTime: 00:05:42
     Upstream interface: NULL
         Upstream neighbor: NULL
         RPF prime neighbor: NULL
     Downstream interface(s) information: None