

## 组网及说明

### 1 配置需求或说明

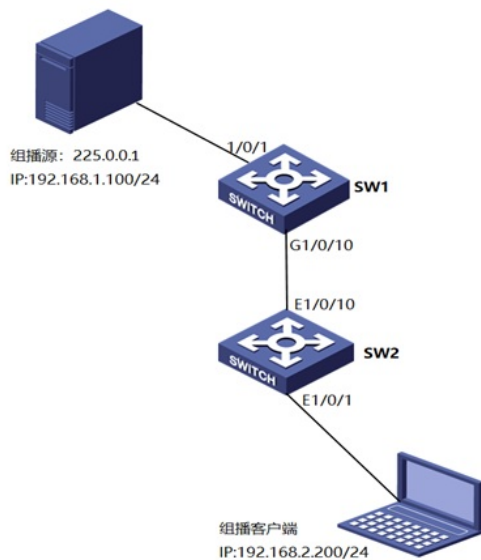
#### 1.1 适用产品系列

本案例适用于如S5500-20TP-SI、S5500-52C-EI、S5500-52C-PWR-EI、S5500-34C-HI、S5800-32C-EI、5800-32F、S5800-60C-PWR、S5830-106S等S5500、S5800、S5830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



## 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

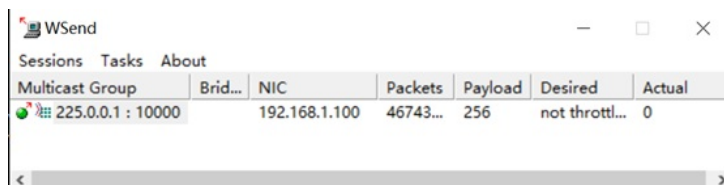
```

#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：



The screenshot shows a window titled 'WSend' with a table of multicast groups. The table has columns for Multicast Group, Brid... (Bridge ID), NIC, Packets, Payload, Desired, and Actual. One group is listed: 225.0.0.1 : 10000, with NIC 192.168.1.100, 46743... packets, 256 payload, and 0 actual.

| Multicast Group   | Brid... | NIC           | Packets  | Payload | Desired        | Actual |
|-------------------|---------|---------------|----------|---------|----------------|--------|
| 225.0.0.1 : 10000 |         | 192.168.1.100 | 46743... | 256     | not throttl... | 0      |

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

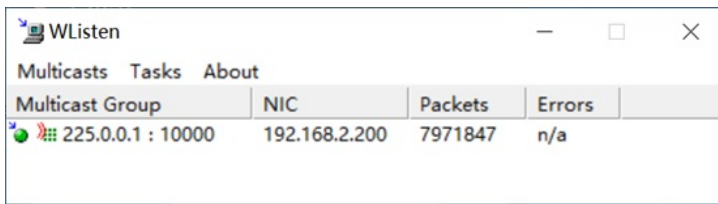
Downstream interface(s) information:

Total number of downstreams: 1

1: Vlan-interface10

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

组播客户端:



| Multicast Group   | NIC           | Packets | Errors |
|-------------------|---------------|---------|--------|
| 225.0.0.1 : 10000 | 192.168.2.200 | 7971847 | n/a    |

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