

## 组网及说明

### 1 配置需求或说明

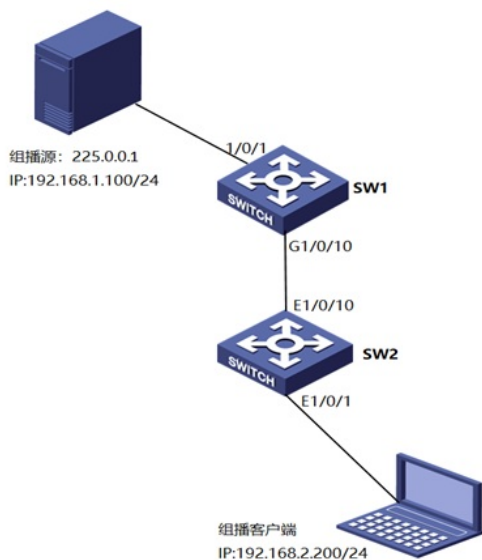
#### 1.1 适用产品系列

本案例适用于如S3100V2-26TP-SI、S3100V2-26TP-EI、S3600V2-28TP-EI、S3600V2-28TP-SI、S3110-26TP-PWR等S3100V2、S3600V2、3110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

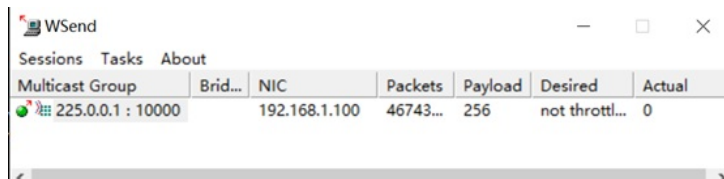
```
#开启组播路由功能
[H3C]multicast routing-enable
#设备互联接口使能PIM-DM功能
[H3C]interface Vlan-interface10
[H3C-Vlan-interface10]pim dm
[H3C-Vlan-interface10]quit
#连接组播源接口使能PIM功能
[H3C]interface Vlan-interface1
[H3C-Vlan-interface1]pim dm
[H3C-Vlan-interface1]quit
[H3C]save
配置SW2的IP地址和互联路由
<H3C>-system-view
#新建互联VLAN10
[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：



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
```

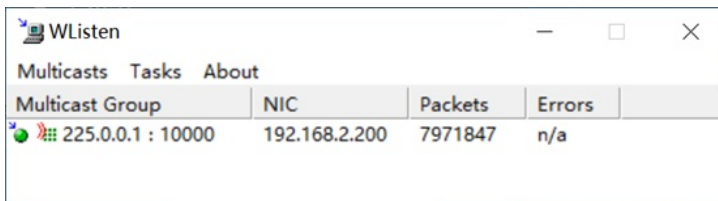
Downstream interface(s) information:

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
```

配置关键点