S5500/S5800/S5830系列交换机三层组播配置方法（命令行版）

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组网及说明

1 配置需求或说明

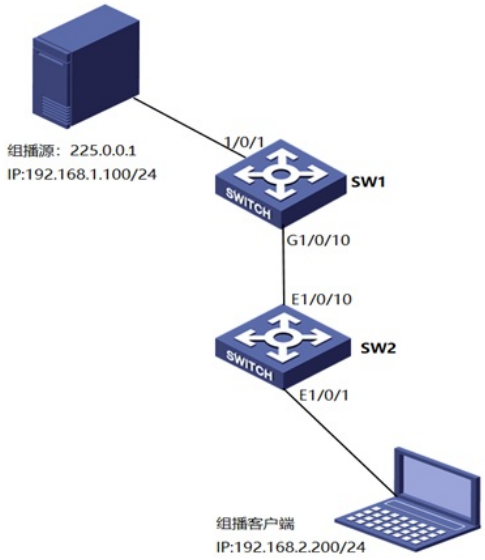
1.1 适用产品系列

本案例适用于如SS5500-20TP-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

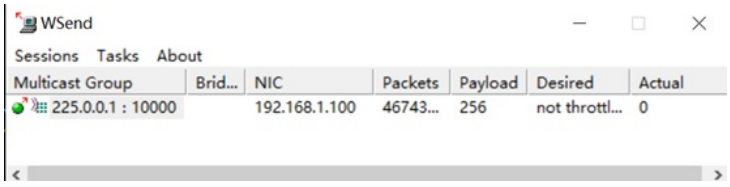
#开启组播路由功能
[H3C]multicast routing-enable
#设备互联接口使能PIM-DM功能
[H3C]interface Vlan-interface10
[H3C-Vlan-interface10]pim dm
[H3C-Vlan-interface10]quit
#连接组播源接口使能PIM功能
[H3C]interface Vlan-interface1
[H3C-Vlan-interface1]pim dm
[H3C-Vlan-interface1]quit
[H3C]save
配置SW2的IP地址和互联路由
<H3C>system–view
#新建互联VLAN10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

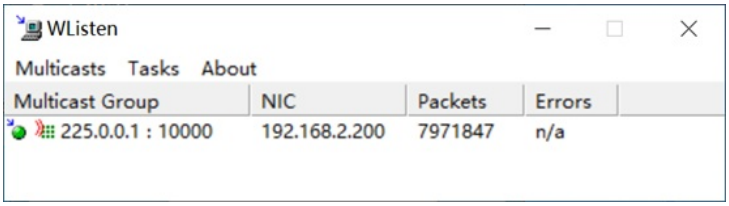
Downstream interface(s) information:

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

配置关键点