



## Configuration of MSDP on H3C S3600 series switch

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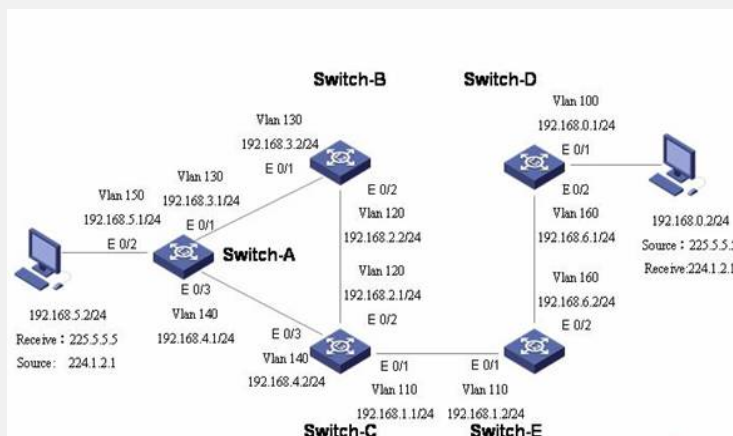
### Configuration of MSDP on H3C S3600 series switch

#### 1 Network requirements:

1.1 PIM-SM network adopts single BSR management domain, has several multicast source S and many receivers. Set anycast RP in PIM-SM domain, when new member joins into the multicast group, the switch that directly connected to receiver will send join message to the nearest RP in topology.

1.2 You should run OSPF to supply unicast routing in PIM-SM network and establish MSDP peer between SwitchC and SwitchD. The loopback10 and loopback0 of SwitchC and SwitchD are C-BSR or C-RP.

#### 1 Network Diagram:



#### 2 Configuration procedure:

##### The configurations of SwitchA:

**3.1 Create vlan 130,140 and 150,add port E 0/1 to vlan 130,add port E 0/2 to vlan 150, add port E 0/3 to vlan 140**

```
[SwitchA]vlan 130
[SwitchA-vlan 130]port Ethernet 0/1
[SwitchA-vlan 130]vlan 140
[SwitchA-vlan 140]port Ethernet 0/3
[SwitchA-vlan 140]vlan 150
[SwitchA-vlan 150]port Ethernet 0/2
```

**3.2 Assign IP addresses to vlan 130 interface,vlan140 interface and vlan150 interface respectively**

```
[SwitchA-vlan 150]int vlan 130
[SwitchA-interface-vlan 130]ip add 192.168.3.1 24
[SwitchA-interface-vlan 130]int vlan 140
[SwitchA-interface-vlan 140]ip add 192.168.4.1 24
[SwitchA-interface-vlan 140]int vlan 150
[SwitchA-interface-vlan 150]ip add 192.168.5.1 24
```

##### 3.3 Configure ospf

```
[SwitchA-interface-vlan 150]quit
[SwitchA]ospf
[SwitchA-ospf-1]area
[SwitchA-ospf-1-area 0.0.0.0]network 192.168.3.1 0.0.0.255
[SwitchA-ospf-1-area 0.0.0.0]network 192.168.4.1 0.0.0.255
[SwitchA-ospf-1-area 0.0.0.0]network 192.168.5.1 0.0.0.255
```

##### 3.4 Configure pim sm

```
[SwitchA-ospf-1-area 0.0.0.0]quit
[SwitchA-ospf-1]quit
[SwitchA]multicast routing-enable
[SwitchA]int vlan 130
[SwitchA-interface-vlan 130]pim sm
[SwitchA-interface-vlan 130]int vlan 140
[SwitchA-interface-vlan 140]pim sm
[SwitchA-interface-vlan 140]int vlan 150
```

```
[SwitchA-interface-vlan 150]igmp enable
```

```
[SwitchA-interface-vlan 150]pim sm
```

#### **The configurations of SwitchB:**

#### **3.5 Creat vlan120 and 130,add port E0/1to vlan130,add port E0/2 to vlan120**

```
[SwitchB]vlan 130
```

```
[SwitchB-vlan 130]port Ethernet 0/1
```

```
[SwitchB-vlan 130]vlan 120
```

```
[SwitchB-vlan 120]port Ethernet 0/2
```

#### **3.6 Assign IP addresses to vlan120 interface and vlan130 interface respectively**

```
[SwitchB-vlan 120]int vlan 130
```

```
[SwitchB-interface-vlan 130]ip add 192.168.3.2 24
```

```
[SwitchB-interface-vlan 130]int vlan 120
```

```
[SwitchB-interface-vlan 120]ip add 192.168.2.2 24
```

#### **3.7 Configure ospf**

```
[SwitchB-interface-vlan 120]quit
```

```
[SwitchB]ospf
```

```
[SwitchB-ospf-1]area
```

```
[SwitchB-ospf-1-area 0.0.0.0]network 192.168.2.2 0.0.0.255
```

```
[SwitchB-ospf-1-area 0.0.0.0]network 192.168.3.2 0.0.0.255
```

#### **3.8 Configure pim sm**

```
[SwitchB-ospf-1-area 0.0.0.0]quit
```

```
[SwitchB-ospf-1]quit
```

```
[SwitchB]multicast routing-enable
```

```
[SwitchB]int vlan 130
```

```
[SwitchB-interface-vlan 130]pim sm
```

```
[SwitchB-interface-vlan 130]int vlan 120
```

```
[SwitchB-interface-vlan 120]pim sm
```

#### **The configurations of SwitchC:**

#### **3.9 Creat vlan 110,120 and 140,add port E0/1 to vlan 110, add port E 0/2 to vlan 120,add port E 0/3 to vlan 140**

```
[SwitchC]vlan 110
```

```
[SwitchC-vlan 110]port Ethernet 0/1
```

```
[SwitchC-vlan 110]vlan 120
```

```
[SwitchC-vlan 120]port Ethernet 0/2
```

```
[SwitchC-vlan 120]vlan 140
```

```
[SwitchC-vlan 140]port Ethernet 0/3
```

#### **3.10 Assign IP addresses to vlan 110 interface,vlan120 interface and vlan140 in interface respectively**

```
[SwitchC-vlan 140]int vlan 110
```

```
[SwitchC-interface-vlan 110]ip add 192.168.1.1 24
```

```
[SwitchC-interface-vlan 110]int vlan 120
```

```
[SwitchC-interface-vlan 120]ip add 192.168.2.1 24
```

```
[SwitchC-interface-vlan 120]int vlan 140
```

```
[SwitchC-interface-vlan 140]ip add 192.168.4.2 24
```

#### **3.11 Creat interface Loopback0 and interface Loopback10,enable pim sm on the loopback interfaces**

```
[SwitchC-interface-vlan 140]quit
```

```
[SwitchC]int Loopback 0
```

```
[SwitchC-Loopback 0]ip add 1.1.1.1 32
```

```
[SwitchC-Loopback 0]pim sm
```

```
[SwitchC-Loopback 0]quit
```

```
[SwitchC] int Loopback 10
```

```
[SwitchC-Loopback 10]ip add 192.168.10.1 32
```

```
[SwitchC-Loopback 10]pim sm
```

#### **3.12 Configure ospf**

```
[SwitchC-Loopback 10]quit
```

```
[SwitchC]ospf
```

```
[SwitchC-ospf-1]area
```

```
[SwitchC-ospf-1-area 0.0.0.0]network 192.168.1.1 0.0.0.255
```

```
[SwitchC-ospf-1-area 0.0.0.0]network 192.168.2.1 0.0.0.255
```

```
[SwitchC-ospf-1-area 0.0.0.0]network 192.168.4.2 0.0.0.255
```

```
[SwitchC-ospf-1-area 0.0.0.0]network 1.1.1.1 0.0.0.0
```

```
[SwitchC-ospf-1-area 0.0.0.0]network 192.168.10.1 0.0.0.0
```

#### **3.13 Configure pim sm**

```
[SwitchC-ospf-1-area 0.0.0.0]quit
[SwitchC-ospf-1]quit
[SwitchC]multicast routing-enable
[SwitchC]int vlan 110
[SwitchC-interface-vlan 110]pim sm
[SwitchC-interface-vlan 110]int vlan 120
[SwitchC-interface-vlan 120]pim sm
[SwitchC-interface-vlan 120]int vlan 140
[SwitchC-interface-vlan 140]pim sm
```

### 3.14 Configure rp and bsr

```
[SwitchC-interface-vlan 140]quit
[SwitchC]pim
[SwitchC-pim]c-rp Loopback 0
[SwitchC-pim]c-bsr Loopback 10 32
```

### 3.15 Configure msdp

```
[SwitchC-pim]quit
[SwitchC]msdp
[SwitchC-msdp] originating-rp LoopBack0
[SwitchC-msdp] peer 2.2.2.2 connect-interface LoopBack0
```

### The configurations of SwitchD:

### 3.16 Create vlan 100 and 160, add port E0/1 to vlan 100, add port E 0/2 to vlan 160

```
[SwitchD]vlan 100
[SwitchD-vlan 100]port Ethernet 0/1
[SwitchD-vlan 100]vlan 160
[SwitchD-vlan 160]port Ethernet 0/2
```

### 3.17 Assign IP addresses to vlan 100 interface and vlan160 respectively

```
[SwitchD-vlan 160]int vlan 100
[SwitchD-interface-vlan 100]ip add 192.168.0.1 24
[SwitchD-interface-vlan 100]int vlan 160
[SwitchD-interface-vlan 160]ip add 192.168.6.1 24
```

### 3.18 Create interface Loopback0 and interface Loopback10, enable pim sm on the loopback interfaces

```
[SwitchD-interface-vlan 160]quit
[SwitchD]int Loopback 0
[SwitchD-Loopback 0]ip add 2.2.2.2 32
[SwitchD-Loopback 0]pim sm
[SwitchD-Loopback 0]quit
[SwitchD]int Loopback 10
[SwitchD-Loopback 10]ip add 192.168.10.1 32
[SwitchD-Loopback 10]pim sm
```

### 3.19 Configure ospf

```
[SwitchD-Loopback 10]quit
[SwitchD]ospf
[SwitchD-ospf-1]area
[SwitchD-ospf-1-area 0.0.0.0]network 192.168.0.1 0.0.0.255
[SwitchD-ospf-1-area 0.0.0.0]network 192.168.6.1 0.0.0.255
[SwitchD-ospf-1-area 0.0.0.0]network 2.2.2.2 0.0.0.0
[SwitchD-ospf-1-area 0.0.0.0]network 192.168.10.1 0.0.0.0
```

### 3.20 Configure pim sm

```
[SwitchD-ospf-1-area 0.0.0.0]quit
[SwitchD-ospf-1]quit
[SwitchD]multicast routing-enable
[SwitchD]int vlan 100
[SwitchD-interface-vlan 100]igmp enable
[SwitchD-interface-vlan 100]pim sm
[SwitchD-interface-vlan 100]int vlan 160
[SwitchD-interface-vlan 160]pim sm
```

### 3.21 Configure rp and bsr

```
[SwitchD-interface-vlan 160]quit
[SwitchD]pim
[SwitchD-pim]c-rp Loopback 0
[SwitchD-pim]c-bsr Loopback 10 32
```

### 3.22 Configure msdp

```
[SwitchD-pim]quit
```

```
[SwitchD]msdp
[SwitchD-msdp] originating-rp LoopBack0
[SwitchD-msdp] peer 1.1.1.1 connect-interface LoopBack0
```

**The configurations of SwitchE:**

**3.22 Creat vlan 110 and 160,add port E0/1 to vlan 110, add port E 0/2 to vlan 160**

```
[SwitchE]vlan 110
[SwitchE-vlan 110]port Ethernet 0/1
[SwitchE-vlan 110]vlan 160
[SwitchE-vlan 160]port Ethernet 0/2
```

**3.23 Assign IP addresses to vlan 110 interface and vlan160 respectively**

```
[SwitchE-vlan 160]int vlan 110
[SwitchE-interface-vlan 110]ip add 192.168.1.2 24
[SwitchE-interface-vlan 110]int vlan 160
[SwitchE-interface-vlan 160]ip add 192.168.6.2 24
```

**3.24 Configure ospf**

```
[SwitchE-interface-vlan 160]quit
[SwitchE]ospf
[SwitchE-ospf-1]area
[SwitchE-ospf-1-area 0.0.0.0]network 192.168.1.2 0.0.0.255
[SwitchE-ospf-1-area 0.0.0.0]network 192.168.6.2 0.0.0.255
```

**3.25 Configure pim sm**

```
[SwitchE-ospf-1-area 0.0.0.0]quit
[SwitchE-ospf-1]quit
[SwitchE]multicast routing-enable
[SwitchE]int vlan 110
[SwitchE-interface-vlan 110]pim sm
[SwitchE-interface-vlan 110]int vlan 160
[SwitchE-interface-vlan 160]pim sm
```

**4 Configuration tips:**

This case is also applicable to H3C S5600,H3C S3610 and H3C S5510 series switches.