

H3C S3500-EA IPv4 OSPF Stub区域典型配置

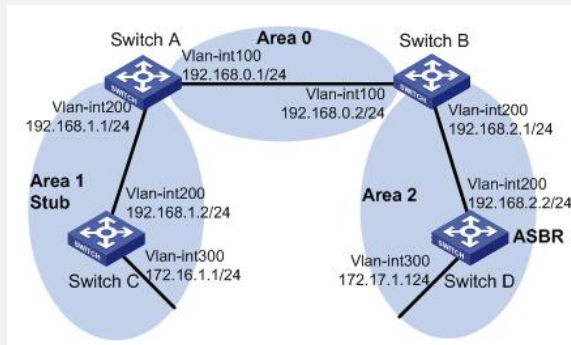
一、组网需求:

所有的交换机都运行OSPF，整个自治系统划分为3个区域。

其中Switch A和Switch B作为ABR来转发区域之间的路由，Switch D作为ASBR引入了外部路由（静态路由）。

要求将Area1配置为Stub区域，减少通告到此区域内的LSA数量，但不影响路由的可达性。

二、组网图:



三、配置步骤:

(1) 配置各接口的IP地址(此处略)

(2) 配置OSPF基本配置

配置Switch A。

```
<SwitchA> system-view
[SwitchA] ospf
[SwitchA-ospf-1] area 0
[SwitchA-ospf-1-area-0.0.0.0] network 192.168.0.0 0.0.0.255
[SwitchA-ospf-1-area-0.0.0.0] quit
[SwitchA-ospf-1] area 1
[SwitchA-ospf-1-area-0.0.0.1] network 192.168.1.0 0.0.0.255
[SwitchA-ospf-1-area-0.0.0.1] quit
[SwitchA-ospf-1] quit
```

配置Switch B。

```
<SwitchB> system-view
[SwitchB] ospf
[SwitchB-ospf-1] area 0
[SwitchB-ospf-1-area-0.0.0.0] network 192.168.0.0 0.0.0.255
[SwitchB-ospf-1-area-0.0.0.0] quit
[SwitchB-ospf-1] area 2
[SwitchB-ospf-1-area-0.0.0.2] network 192.168.2.0 0.0.0.255
[SwitchB-ospf-1-area-0.0.0.2] quit
[SwitchB-ospf-1] quit
```

配置Switch C。

```
<SwitchC> system-view
[SwitchC] ospf
[SwitchC-ospf-1] area 1
[SwitchC-ospf-1-area-0.0.0.1] network 192.168.1.0 0.0.0.255
[SwitchC-ospf-1-area-0.0.0.1] network 172.16.1.0 0.0.0.255
[SwitchC-ospf-1-area-0.0.0.1] quit
[SwitchC-ospf-1] quit
```

配置Switch D。

```
<SwitchD> system-view
[SwitchD] ospf
[SwitchD-ospf-1] area 2
[SwitchD-ospf-1-area-0.0.0.2] network 192.168.2.0 0.0.0.255
[SwitchD-ospf-1-area-0.0.0.2] network 172.17.1.0 0.0.0.255
[SwitchD-ospf-1-area-0.0.0.2] quit
```

```

[SwitchD-ospf-1] quit
(3) 配置Switch D 引入静态路由
[SwitchD] ip route-static 200.0.0.0 8 null 0
[SwitchD] ospf
[SwitchD-ospf-1] import-route static
[SwitchD-ospf-1] quit
# 查看Switch C的ABR/ASBR信息。
[SwitchC] display ospf abr-asbr
    OSPF Process 1 with Router ID 172.16.1.1
        Routing Table to ABR and ASBR
Type  Destination   Area   Cost  Nexthop   RtType
Intra-area 192.168.0.1 0.0.0.1 1562 192.168.1.1  ABR
Inter-area 172.17.1.1 0.0.0.1 4686 192.168.1.1  ASBR
# 查看Switch C的OSPF路由表。
[SwitchC] display ospf routing
    OSPF Process 1 with Router ID 172.16.1.1
        Routing Tables
Routing for Network
Destination  Cost  Type  NextHop  AdvRouter  Area
172.16.1.0/24 1  Stub  172.16.1.1 172.16.1.1 0.0.0.1
172.17.1.0/24 4687 Inter-area 192.168.1.1 192.168.0.1 0.0.0.1
192.168.1.0/24 1562 Stub  192.168.1.2 172.16.1.1 0.0.0.1
192.168.2.0/24 4686 Inter-area 192.168.1.1 192.168.0.1 0.0.0.1
192.168.0.0/24 3124 Inter-area 192.168.1.1 192.168.0.1 0.0.0.1
Routing for ASEs
Destination  Cost  Type  Tag  NextHop  AdvRouter
200.0.0.0/8 10  Type2  1  192.168.1.1 172.17.1.1
Routing for NSSAs
Destination  Cost  Type  Tag  NextHop  AdvRouter
Total Nets: 6
Intra Area: 2 Inter Area: 3 ASE: 1 NSSA: 0
(4) 配置Area1为Stub区域
# 查看Switch C的OSPF路由表。
[SwitchC] display ospf routing
    OSPF Process 1 with Router ID 172.16.1.1
        Routing Tables
Routing for Network
Destination  Cost  Type  NextHop  AdvRouter  Area
172.16.1.0/24 1  Stub  172.16.1.1 172.16.1.1 0.0.0.1
172.17.1.0/24 4687 Inter-area 192.168.1.1 192.168.0.1 0.0.0.1
192.168.1.0/24 1562 Stub  192.168.1.2 172.16.1.1 0.0.0.1
192.168.2.0/24 4686 Inter-area 192.168.1.1 192.168.0.1 0.0.0.1
192.168.0.0/24 3124 Inter-area 192.168.1.1 192.168.0.1 0.0.0.1
Routing for ASEs
Destination  Cost  Type  Tag  NextHop  AdvRouter
200.0.0.0/8 10  Type2  1  192.168.1.1 172.17.1.1
Routing for NSSAs
Destination  Cost  Type  Tag  NextHop  AdvRouter
Total Nets: 6
Intra Area: 2 Inter Area: 3 ASE: 1 NSSA: 0
四、配置关键点:
无。

```