

OSPF 实验心得

1. 掌握了如何在交换机和路由器上配置 OSPF 的方法

```
28-s5750-1(config)#router ospf 1
28-s5750-1(config-router)#network 192.168.5.0 0.0.0.255 area 0
28-s5750-1(config-router)#network 192.168.1.0 0.0.0.255 area 0
28-s5750-1(config-router)#end

21-RSR20-1(config)#router ospf 1
21-RSR20-1(config-router)#network 192.168.1.0 0.0.0.255 area 0
21-RSR20-1(config-router)#*Jun 5 10:01:30: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.5.1-
from Down to Init, HelloReceived.
*Jun 5 10:01:31: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.5.1-Gi
ingDone.
21-RSR20-1(config-router)#network 192.168.2.0 0.0.0.255 area 0
21-RSR20-1(config-router)#end
```

- ### 2. 通过查看 debug ip ospf, 掌握了对所有 DR/BDR 路由器的组播地址为 240.0.0.6, 对所有的非 DR/BDR 路由器的组播地址为 224.0.0.5。
- ### 3. 掌握了 OSPF 包的详细数据

```
Open Shortest Path First
  OSPF Header
    Version: 2
    Message Type: Hello Packet (1)
    Packet Length: 44
    Source OSPF Router: 192.168.5.1
    Area ID: 0.0.0.0 (Backbone)
    Checksum: 0x714b [correct]
    Auth Type: Null (0)
    Auth Data (none): 0000000000000000
  OSPF Hello Packet
    Network Mask: 255.255.255.0
    Hello Interval [sec]: 10
    Options: 0x02, (E) External Routing
      0... .. = DN: Not set
      .0.. .. = O: Not set
      ..0. .... = (DC) Demand Circuits: Not supported
      ...0 .... = (L) LLS Data block: Not Present
      ....0... = (N) NSSA: Not supported
      ....0... = (MC) Multicast: Not capable
      ....1. = (E) External Routing: Capable
      ....0 = (MT) Multi-Topology Routing: No
    Router Priority: 1
    Router Dead Interval [sec]: 40
    Designated Router: 192.168.5.1
    Backup Designated Router: 0.0.0.0
```

- ### 4. 掌握了 show ip ospf database router 显示 router LSA, show ip ospf database network 显示 network LSA, show ip ospf database database 显示 OSPF 链路状态数据库信息, show ip ospf neighbor 记录邻居状态, show ip ospf interface 查看所有端口的 OSPF 信息