

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S5800-32C-EI、S5800-32F、S5800-60C-PWR等S5800系列的交换机。

1.2 配置需求

公司将交换机做为核心交换机，现在需要在核心交换机上划分3个VLAN网段，部门A/B/C分别属于VLAN 5/VLAN 6/ VLAN7，即5、6、7三个网段，要求交换机上要开启DHCP功能，分别给三个部门的主机分配5、6、7三个网段的IP地址。

2 组网图

配置步骤

3 配置步骤

3.1 设备配置

1) 配置DHCP服务

```
# 启用DHCP服务。
```

```
system-view
```

```
[H3C] dhcp enable
```

2) 配置端口所属VLAN和对应VLAN接口的IP地址，IP地址即是对应VLAN的网关地址

```
[H3C]vlan 5
```

```
[H3C-vlan5]port GigabitEthernet 1/0/5
```

```
[H3C-vlan5]quit
```

```
[H3C]vlan 6
```

```
[H3C-vlan6]port GigabitEthernet 1/0/6
```

```
[H3C-vlan6]quit
```

```
[H3C]vlan 7
```

```
[H3C-vlan7]port GigabitEthernet 1/0/7
```

```
[H3C-vlan7]quit
```

```
[H3C]interface vlan 5
```

```
[H3C-Vlan-interface5]ip address 192.168.5.254 255.255.255.0
```

```
[H3C-Vlan-interface5]quit
```

```
[H3C]interface vlan 6
```

```
[H3C-Vlan-interface6]ip address 192.168.6.254 255.255.255.0
```

```
[H3C-Vlan-interface6]quit
```

```
[H3C]interface vlan 7
```

```
[H3C-Vlan-interface7]ip address 192.168.7.254 255.255.255.0
```

```
[H3C-Vlan-interface7]quit
```

3) 配置不参与自动分配的IP地址（DNS服务器等，此步为选配）

```
[H3C] dhcp server forbidden-ip 192.168.5.100
```

```
[H3C] dhcp server forbidden-ip 192.168.6.100
```

```
[H3C] dhcp server forbidden-ip 192.168.7.100
```

4) 配置DHCP地址池5，用来为192.168.5.0/24网段内的客户端分配IP地址。

```
[H3C] dhcp server ip-pool 5
```

```
[H3C-dhcp-pool-5] network 192.168.5.0 mask 255.255.255.0
```

```
[H3C-dhcp-pool-5] dns-list 8.8.8.8
```

```
[H3C-dhcp-pool-5] gateway-list 192.168.5.254
```

```
[H3C-dhcp-pool-5] quit
```

说明：如果有多个公网的DNS地址，命令可以如下方式输入

```
[H3C-dhcp-pool-5] dns-list 8.8.8.8 114.114.114.114
```

5) 配置DHCP地址池6，用来为192.168.6.0/24网段内的客户端分配IP地址。

```
[H3C] dhcp server ip-pool 6
```

```
[H3C-dhcp-pool-6] network 192.168.6.0 mask 255.255.255.0
```

```
[H3C-dhcp-pool-6] dns-list 8.8.8.8
```

```
[H3C-dhcp-pool-6] gateway-list 192.168.6.254
```

```
[H3C-dhcp-pool-6] quit
```

6) 配置DHCP地址池7，用来为192.168.7.0/24网段内的客户端分配IP地址。

```
[H3C] dhcp server ip-pool 7
```

```
[H3C-dhcp-pool-7] network 192.168.7.0 mask 255.255.255.0
```

```
[H3C-dhcp-pool-7] dns-list 8.8.8.8
```

```
[H3C-dhcp-pool-7] gateway-list 192.168.7.254
```

```
[H3C-dhcp-pool-7] quit
```

7) 保存配置

```
[H3C]save force
```

3.2 验证配置

配置完成后，hostA/ hostB/ hostC客户端可以从DHCP服务器申请到相应网段的IP地址和网络配置参数。通过在交换机上使用display dhcp server ip-in-use命令可以查看DHCP服务器为客户端分配的IP地址。

配置关键点