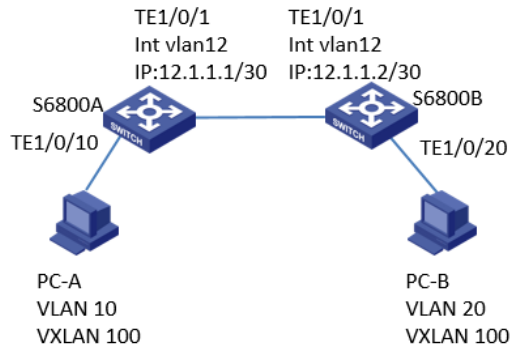


采用VXLAN实现不同站点主机跨三层网络实现二层互通:

PCA和PCB分别模拟两个不同站点的主机;

- PCA和PCB处在不同VLAN, 但处于同一个VXLAN;
- 通过配置VXLAN实现PCA和PCB之间跨三层的二层互通;



### 1、配置两台PC的IP地址

分别配置PCA和PCB IP地址为 10.1.1.1 与 10.1.1.2

### 2、配置S6800A交换机

步骤一：配置VLAN 10、12，PCA连接端口属于VLAN10，两台S6800互联口属于vlan 12

```
<H3C> system-view
[H3C] vlan 10
[H3C-vlan10]quit
[H3C] vlan 12
[H3C-vlan12]quit
[H3C] interface Ten-GigabitEthernet1/0/10
[H3C-Ten-GigabitEthernet1/0/10] port access vlan 10
[H3C] interface Ten-GigabitEthernet1/0/1
[H3C-Ten-GigabitEthernet1/0/1] port access vlan 12
```

步骤二：创建Loopback 1接口

```
[H3C]interface LoopBack 1
[H3C-LoopBack1]ip address 1.1.1.1 32
```

步骤三：创建vlan12虚接口

```
[H3C]interface Vlan-interface 12
[H3C-Vlan-interface12]ip address 12.1.1.1 30
```

步骤四：配置OSPF，使得两台设备之间IP可达

```
[H3C]interface Vlan-interface 12
[H3C-Vlan-interface12]ip address 12.1.1.1 30
[H3C]ospf 1
[H3C-ospf-1]area 0
[H3C-ospf-1-area-0.0.0.0]network 12.1.1.0 0.0.0.3
[H3C-ospf-1-area-0.0.0.0]network 1.1.1.1 0.0.0.0
```

步骤五：开启L2VPN功能

```
[H3C] l2vpn enable
```

步骤六：创建VSI，并进入VSI视图（这里1即创建的VSI名称）

```
[H3C]vsi 1
[H3C-vsi-1]
```

步骤七：创建VXLAN 100

```
[H3C-vsi-1]vxlan 100
[H3C-vsi-1-vxlan-100]quit
```

步骤八：创建模式为VXLAN隧道的tunnel接口，并配置隧道源与目的

```
[H3C]interface Tunnel 1 mode vxlan
[H3C-Tunnel1]source LoopBack 1
[H3C-Tunnel1]destination 2.2.2.2
```

步骤九：手工关联VXLAN与VXLAN隧道

```
[H3C]vsi 1
```

```
[H3C-vsi-1]vxlan 100
[H3C-vsi-1-vxlan-100]tunnel 1
步骤十：创建以太网服务实例及配置封装模式，并使其与VSI关联
[H3C]interface Ten-GigabitEthernet 1/0/10
[H3C-Ten-GigabitEthernet1/0/10]service-instance 1
[H3C-Ten-GigabitEthernet1/0/10-srv1]encapsulation s-vid 10
[H3C-Ten-GigabitEthernet1/0/10-srv1]xconnect vsi 1
```

### 3. 配置S6800B交换机

步骤一：配置VLAN 20，12，PCB连接端口属于VLAN20，两台S6800互联口属于vlan 12

```
<H3C> system-view
[H3C] vlan 20
[H3C-vlan20]quit
[H3C] vlan 12
[H3C-vlan12]quit
[H3C] interface Ten-GigabitEthernet1/0/20
[H3C-Ten-GigabitEthernet1/0/20] port access vlan 20
[H3C] interface Ten-GigabitEthernet1/0/1
[H3C-Ten-GigabitEthernet1/0/1] port access vlan 12
```

步骤二：创建loopback1 接口

```
[H3C]interface LoopBack 1
[H3C-LoopBack1]ip address 2.2.2.2 32
```

步骤三：创建vlan12虚接口

```
[H3C]interface Vlan-interface 12
[H3C-Vlan-interface12]ip address 12.1.1.2 30
```

步骤四：配置OSPF，使得两台设备之间IP可达

```
[H3C]ospf 1
[H3C-ospf-1]area 0
[H3C-ospf-1-area-0.0.0.0]network 12.1.1.0 0.0.0.3
[H3C-ospf-1-area-0.0.0.0]network 2.2.2.2 0.0.0.0
```

步骤五：开启L2VPN功能

```
[H3C] l2vpn enable
```

步骤六：创建VSI，并进入VSI视图（这里1即创建的VSI名称）

```
[H3C]vsi 1
[H3C-vsi-1]
```

步骤七：创建VXLAN 100

```
[H3C-vsi-1]vxlan 100
[H3C-vsi-1-vxlan-100]quit
```

步骤八：创建模式为VXLAN隧道的tunnel接口，并配置隧道源与目的

```
[H3C]interface Tunnel 1 mode vxlan
[H3C-Tunnel1]source LoopBack 1
[H3C-Tunnel1]destination 1.1.1.1
```

步骤九：手工关联VXLAN与VXLAN隧道

```
[H3C]vsi 1
[H3C-vsi-1]vxlan 100
[H3C-vsi-1-vxlan-100]tunnel 1
```

步骤十：创建以太网服务实例及配置封装模式，并使其与VSI关联

```
[H3C]interface Ten-GigabitEthernet 1/0/20
[H3C-Ten-GigabitEthernet1/0/20]service-instance 1
[H3C-Ten-GigabitEthernet1/0/20-srv1]encapsulation s-vid 20
[H3C-Ten-GigabitEthernet1/0/20-srv1]xconnect vsi 1
```

### 4. 配置完成后的结果检验

步骤一：配置完成后，在两台PC进行Ping操作，此时两台PC可以ping通

步骤二：配置完成后，执行display l2vpn mac-address 查看MAC地址学习情况

```
[H3C]display l2vpn mac-address
MAC Address State VSI Name Link ID/Name Aging
4437-e6ab-9cea Dynamic 1 Tunnel1 Aging
c434-6b25-4b67 Dynamic 1 XGE1/0/20 Aging
--- 2 mac address(es) found ---
```

无。