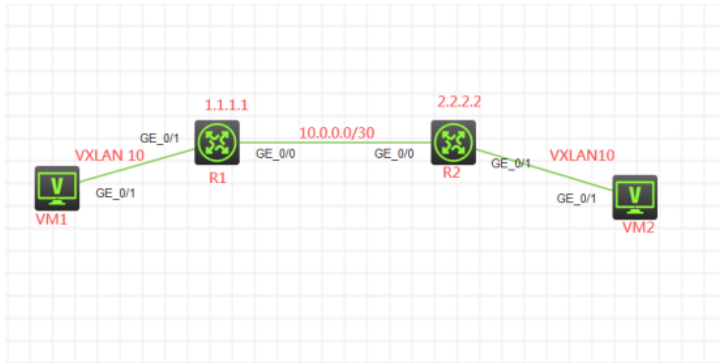


知 HCL模拟器模拟VXLAN头端复制典型组网配置

VxLAN H3C模拟器 韦家宁 2020-10-24 发表

组网及说明



组网说明:

本案例采用H3C HCL模拟器来模拟VXLAN头端复制典型组网配置。R1与R2分别连接着服务器的VTEP设备。VM1与VM2同属于VXLAN10。通过VXLAN实现不同站点之间的二层互联，确保虚拟机在站点之间迁移的时候用户的访问的流量不会中断。

配置步骤

- 1、按照网络拓扑图正确配置IP地址
- 2、R1与R2建立OSPF邻居关系
- 3、R1与R2建立VXLAN隧道
- 4、VM1与VM2划分到VXLAN10

配置关键点

R1:

sys

System View: return to User View with Ctrl+Z.

```
[H3C]sysname R1
```

```
[R1]int loopback 0
```

```
[R1-LoopBack0]ip address 1.1.1.1 32
```

```
[R1-LoopBack0]quit
```

```
[R1]int gi 0/0
```

```
[R1-GigabitEthernet0/0]des
```

```
[R1-GigabitEthernet0/0]ip address 10.0.0.1 30
```

```
[R1-GigabitEthernet0/0]quit
```

```
[R1]ospf 1 router-id 1.1.1.1
```

```
[R1-ospf-1]area 0.0.0.0
```

```
[R1-ospf-1-area-0.0.0.0]network 10.0.0.1 0.0.0.0
```

```
[R1-ospf-1-area-0.0.0.0]network 1.1.1.1 0.0.0.0
```

```
[R1-ospf-1-area-0.0.0.0]quit
```

```
[R1-ospf-1]quit
```

R1 VXLAN关键配置点:

```
[R1]2vpn enable
```

```
[R1]vsi vpna
```

```
[R1-vsi-vpna]vxlan 10
```

```
[R1-vsi-vpna-vxlan-10]quit
```

```
[R1-vsi-vpna]quit
```

```
[R1]int Tunnel 0 mode vxlan
```

```
[R1-Tunnel0]source 1.1.1.1
```

```
[R1-Tunnel0]destination 2.2.2.2
```

```
[R1-Tunnel0]quit
```

```
[R1]vsi vpna
```

```
[R1-vsi-vpna]vxlan 10
```

```
[R1-vsi-vpna-vxlan-10]tunnel 0
```

```
[R1-vsi-vpna-vxlan-10]quit
```

```
[R1-vsi-vpna]quit
```

```
[R1]int gi 0/1
```

```
[R1-GigabitEthernet0/1]xconnect vsi vpna
[R1-GigabitEthernet0/1]quit
```

R2:

sys

System View: return to User View with Ctrl+Z.

```
[H3C]sysname R2
```

```
[R2]int loopback 0
```

```
[R2-LoopBack0]ip address 2.2.2.2 32
```

```
[R2-LoopBack0]quit
```

```
[R2]int gi 0/0
```

```
[R2-GigabitEthernet0/0]des
```

```
[R2-GigabitEthernet0/0]ip address 10.0.0.2 30
```

```
[R2-GigabitEthernet0/0]quit
```

```
[R2]ospf 1 router-id 2.2.2.2
```

```
[R2-ospf-1]area 0.0.0.0
```

```
[R2-ospf-1-area-0.0.0.0]network 10.0.0.2 0.0.0.0
```

```
[R2-ospf-1-area-0.0.0.0]network 2.2.2.2 0.0.0.0
```

```
[R2-ospf-1-area-0.0.0.0]quit
```

```
[R2-ospf-1]quit
```

R2 VXLAN关键配置点:

```
[R2]l2vpn enable
```

```
[R2]vsi vpna
```

```
[R2-vsi-vpna]vxlan 10
```

```
[R2-vsi-vpna-vxlan-10]quit
```

```
[R2-vsi-vpna]quit
```

```
[R2]int Tunnel 0 mode vxlan
```

```
[R2-Tunnel0]source 2.2.2.2
```

```
[R2-Tunnel0]destination 1.1.1.1
```

```
[R2-Tunnel0]quit
```

```
[R2]vsi vpna
```

```
[R2-vsi-vpna]vxlan 10
```

```
[R2-vsi-vpna-vxlan-10]tunnel 0
```

```
[R2-vsi-vpna-vxlan-10]quit
```

```
[R2-vsi-vpna]quit
```

```
[R2]int gi 0/1
```

```
[R2-GigabitEthernet0/1]xconnect vsi vpna
```

```
[R2-GigabitEthernet0/1]quit
```

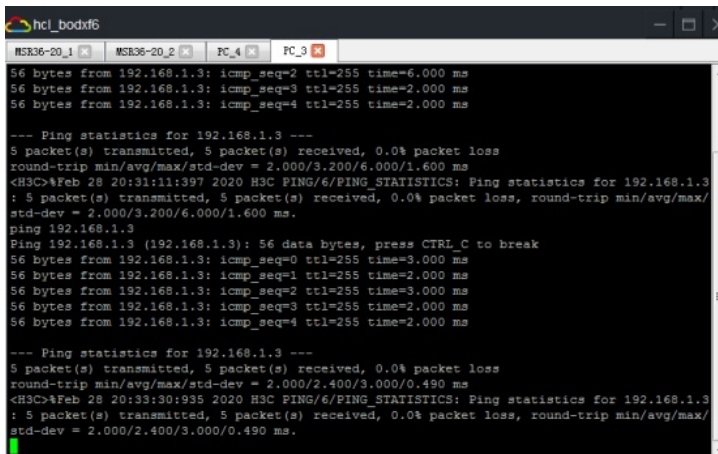
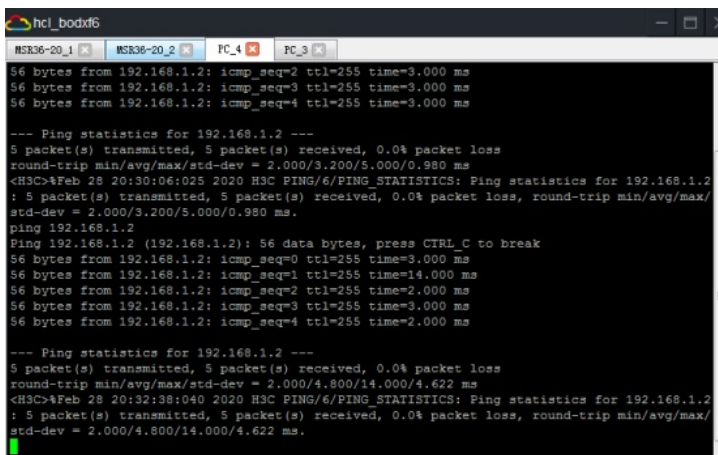
测试:

VM1和VM2分别填写IP地址。由于是VXLAN的大二层，因此需要填写同一个网段的IP地址，而且不需要填写网关。



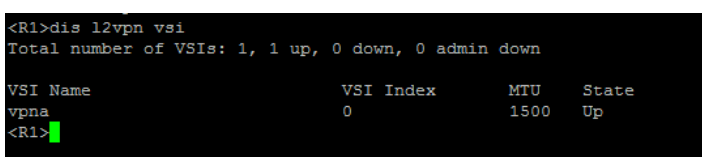


VM1与VM2能相互PING通:



根据测试结果说明, VM1与VM2能通过搭建的VXLAN穿越三层网络实现二层互通.

查看R1 VXLAN的隧道显示信息:



```

<R1>dis vxlan tunnel
Total number of VXLANs: 1

VXLAN ID: 10, VSI name: vpna, Total tunnels: 1 (1 up, 0 down, 0 defect, 0 blocked)
Tunnel name      Link ID  State  Type      Flood proxy
Tunnel0          0x5000000 UP      Manual    Disabled
<R1>

```

```

<R1>dis l2vpn vsi verbose
VSI Name: vpna
VSI Index       : 0
VSI State       : Up
MTU             : 1500
Bandwidth       : -
Broadcast Restrain : -
Multicast Restrain : -
Unknown Unicast Restrain: -
MAC Learning    : Enabled
MAC Table Limit : -
MAC Learning rate : -
Drop Unknown    : -
Flooding        : Enabled
VXLAN ID       : 10
Tunnels:
  Tunnel Name  Link ID  State  Type      Flood proxy
  Tunnel0     0x5000000 UP      Manual    Disabled
ACs:
  AC          Link ID  State
  GE0/1      0        Up
<R1>

```

```

<R1>dis l2vpn mac-address
MAC Address      State  VSI Name      Link ID/Name  Aging
a07e-5cc2-0306  Dynamic vpna      0              Aging
a07e-61de-0406  Dynamic vpna      Tunnel0        Aging
--- 2 mac address(es) found ---
<R1>

```

查看R2 VXLAN的隧道信息显示:

```

[R2]dis l2vpn vsi
Total number of VSIs: 1, 1 up, 0 down, 0 admin down

VSI Name          VSI Index  MTU  State
vpna              0          1500 Up
[R2]

```

```

[R2]dis vxlan tunnel
Total number of VXLANs: 1

VXLAN ID: 10, VSI name: vpna, Total tunnels: 1 (1 up, 0 down, 0 defect, 0 blocked)
Tunnel name      Link ID  State  Type      Flood proxy
Tunnel0          0x5000000 UP      Manual    Disabled
[R2]

```

```

[R2]dis l2vpn mac-address
MAC Address      State  VSI Name      Link ID/Name  Aging
a07e-5cc2-0306  Dynamic vpna      Tunnel0        Aging
a07e-61de-0406  Dynamic vpna      0              Aging
--- 2 mac address(es) found ---
[R2]

```

至此，VXLAN头端复制典型组网配置案例已完成！