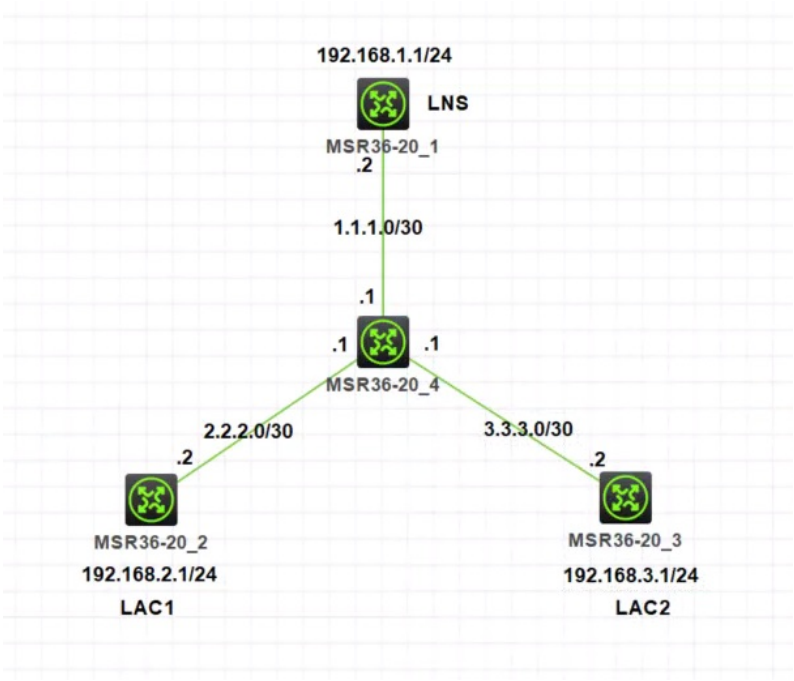
l2tp VPN多分支互访

L2TP VPN 胡琪 2020-06-23 发表

组网及说明

1.组网



2.需求

分支MSR2和分支MSR3分别和总部MSR1建立L2TP VPN，并且分支之间能够通过总部互访。

配置步骤

3.关键配置

LNS：

```
#
interface LoopBack0
 ip address 192.168.1.1 255.255.255.0
#
interface GigabitEthernet0/0
 port link-mode route
 combo enable copper
 ip address 1.1.1.2 255.255.255.252
 nat outbound
#
 ip pool huqi 66.66.66.3 66.66.66.65
#
interface Virtual-Template1
 ppp authentication-mode pap chap
 remote address pool huqi
 ip address 66.66.66.66 255.255.255.0
#
l2tp-group 1 mode lns
 allow l2tp virtual-template 1
 undo tunnel authentication
 tunnel name H3C-LNS
#
l2tp enable
#
local-user huqi class network
 password simple huqi
 service-type ppp
 authorization-attribute user-role network-operator
#
```

```
ip route-static 0.0.0.0 0 1.1.1.1
ip route-static 192.168.2.0 24 66.66.66.1
ip route-static 192.168.3.0 24 66.66.66.2
#
```

LAC1:

```
#
interface LoopBack0
 ip address 192.168.2.1 255.255.255.0
#
interface GigabitEthernet0/0
 port link-mode route
 combo enable copper
 ip address 2.2.2.2 255.255.255.252
 nat outbound
#
interface Virtual-PPP0
 ppp chap password simple huqi
 ppp chap user huqi
 ip address 66.66.66.1 255.255.255.0
 l2tp-auto-client l2tp-group 1
#
l2tp-group 1 mode lac
 lns-ip 1.1.1.2
 undo tunnel authentication
 tunnel name H3C-LAC1
#
l2tp enable
#
ip route-static 0.0.0.0 0 2.2.2.1
ip route-static 192.168.1.0 24 Virtual-PPP0
ip route-static 192.168.3.0 24 Virtual-PPP0
#
```

LAC2:

```
#
interface LoopBack0
 ip address 192.168.3.1 255.255.255.0
#
interface GigabitEthernet0/0
 port link-mode route
 combo enable copper
 ip address 3.3.3.2 255.255.255.252
 nat outbound
#
interface Virtual-PPP0
 ppp chap password simple huqi
 ppp chap user huqi
 ip address 66.66.66.2 255.255.255.0
 l2tp-auto-client l2tp-group 1
#
l2tp-group 1 mode lac
 lns-ip 1.1.1.2
 undo tunnel authentication
 tunnel name H3C-LAC2
#
l2tp enable
#
 ip route-static 0.0.0.0 0 3.3.3.1
ip route-static 192.168.1.0 24 Virtual-PPP0
ip route-static 192.168.2.0 24 Virtual-PPP0
#
```

配置关键点

4.测试

LNS侧：

[LNS]dis l2tp tunnel

LocalTID RemoteTID State Sessions RemoteAddress RemotePort RemoteName

31954 65062 Established 1 3.3.3.2 1701 H3C-LAC2

47746 55251 Established 0 2.2.2.2 1701 H3C-LAC1

LAC1侧：

[LAC1]dis l2tp tunnel

LocalTID RemoteTID State Sessions RemoteAddress RemotePort RemoteName

55251 47746 Established 0 1.1.1.2 1701 H3C-LNS

[LAC1]ping -a 192.168.2.1 192.168.1.1

Ping 192.168.1.1 (192.168.1.1) from 192.168.2.1: 56 data bytes, press CTRL_C to break

56 bytes from 192.168.1.1: icmp_seq=0 ttl=255 time=2.000 ms

56 bytes from 192.168.1.1: icmp_seq=1 ttl=255 time=1.000 ms

56 bytes from 192.168.1.1: icmp_seq=2 ttl=255 time=1.000 ms

56 bytes from 192.168.1.1: icmp_seq=3 ttl=255 time=2.000 ms

56 bytes from 192.168.1.1: icmp_seq=4 ttl=255 time=1.000 ms

--- Ping statistics for 192.168.1.1 ---

5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss

round-trip min/avg/max/std-dev = 1.000/1.400/2.000/0.490 ms

[LAC1]%Jun 23 00:52:37:991 2020 LAC1 PING/6/PING_STATISTICS: Ping statistics for 192.168.1.1: 5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss, round-trip min/avg/max/std-dev = 1.000/1.400/2.000/0.490 ms.

[LAC1]ping -a 192.168.2.1 192.168.3.1

Ping 192.168.3.1 (192.168.3.1) from 192.168.2.1: 56 data bytes, press CTRL_C to break

56 bytes from 192.168.3.1: icmp_seq=0 ttl=254 time=3.000 ms

56 bytes from 192.168.3.1: icmp_seq=1 ttl=254 time=2.000 ms

56 bytes from 192.168.3.1: icmp_seq=2 ttl=254 time=3.000 ms

56 bytes from 192.168.3.1: icmp_seq=3 ttl=254 time=2.000 ms

56 bytes from 192.168.3.1: icmp_seq=4 ttl=254 time=5.000 ms

--- Ping statistics for 192.168.3.1 ---

5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss

round-trip min/avg/max/std-dev = 2.000/3.000/5.000/1.095 ms

LAC2侧：

[LAC2]dis l2tp tunnel

LocalTID RemoteTID State Sessions RemoteAddress RemotePort RemoteName

65062 31954 Established 0 1.1.1.2 1701 H3C-LNS

[LAC2]ping -a 192.168.3.1 192.168.1.1

Ping 192.168.1.1 (192.168.1.1) from 192.168.3.1: 56 data bytes, press CTRL_C to break

56 bytes from 192.168.1.1: icmp_seq=0 ttl=255 time=1.000 ms

56 bytes from 192.168.1.1: icmp_seq=1 ttl=255 time=2.000 ms

56 bytes from 192.168.1.1: icmp_seq=2 ttl=255 time=2.000 ms

56 bytes from 192.168.1.1: icmp_seq=3 ttl=255 time=1.000 ms

56 bytes from 192.168.1.1: icmp_seq=4 ttl=255 time=3.000 ms

--- Ping statistics for 192.168.1.1 ---

5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss

round-trip min/avg/max/std-dev = 1.000/1.800/3.000/0.748 ms

[LAC2]ping -a 192.168.3.1 192.168.2.1

Ping 192.168.2.1 (192.168.2.1) from 192.168.3.1: 56 data bytes, press CTRL_C to break

56 bytes from 192.168.2.1: icmp_seq=0 ttl=254 time=3.000 ms

56 bytes from 192.168.2.1: icmp_seq=1 ttl=254 time=3.000 ms

56 bytes from 192.168.2.1: icmp_seq=2 ttl=254 time=2.000 ms

56 bytes from 192.168.2.1: icmp_seq=3 ttl=254 time=2.000 ms

56 bytes from 192.168.2.1: icmp_seq=4 ttl=254 time=2.000 ms

--- Ping statistics for 192.168.2.1 ---

5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 2.000/2.400/3.000/0.490 ms