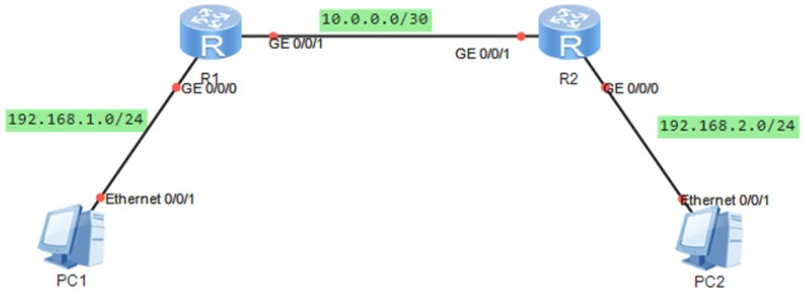
【MVS】华为路由器单区域ISIS典型组网配置案例

网络相关 韦家宁 2024-07-02 发表

组网及说明



组网说明：

本案例采用ENSP模拟ISIS组网环境，通过ISIS路由协议实现PC之间的互访。

配置步骤

配置思路：

1、按照网络拓扑图配置ISIS

2、分别配置R1、R2的单区域ISIS，实现PC之间的互通。

配置关键点

配置过程：

R1：

```
<Huawei>u t m
Info: Current terminal monitor is off.
<Huawei>u t d
Info: Current terminal debugging is off.
<Huawei>sys
Enter system view, return user view with Ctrl+Z.
[Huawei]sysname R1
[R1]int gi 0/0/0
[R1-GigabitEthernet0/0/0]ip address 192.168.1.1 24
[R1-GigabitEthernet0/0/0]quit
[R1]int gi 0/0/1
[R1-GigabitEthernet0/0/1]ip address 10.0.0.1 30
[R1-GigabitEthernet0/0/1]quit
[R1]isis 1
[R1-isis-1]network-entity 10.0000.0000.0001.00
[R1-isis-1]quit
[R1]int gi 0/0/0
[R1-GigabitEthernet0/0/1]isis enable
[R1-GigabitEthernet0/0/1]isis circuit-level level-1
[R1-GigabitEthernet0/0/1]quit
[R1]int gi 0/0/1
[R1-GigabitEthernet0/0/1]isis enable
[R1-GigabitEthernet0/0/1]isis circuit-level level-1-2
[R1-GigabitEthernet0/0/1]quit
```

R2：

```
<Huawei>u t m
Info: Current terminal monitor is off.
<Huawei>u t d
Info: Current terminal debugging is off.
<Huawei>sys
```

```
Enter system view, return user view with Ctrl+Z.
[Huawei]sysname R2
[R2]int gi 0/0/0
[R2-GigabitEthernet0/0/0]ip address 192.168.2.1 24
[R2-GigabitEthernet0/0/0]quit
[R2]int gi 0/0/1
[R2-GigabitEthernet0/0/1]ip address 10.0.0.2 30
[R2-GigabitEthernet0/0/1]quit
[R2]isis 1
[R2-isis-1]network-entity 10.0000.0000.0002.00
[R2-isis-1]quit
[R2]int gi 0/0/0
[R2-GigabitEthernet0/0/0]isis enable
[R2-GigabitEthernet0/0/0]isis circuit-level level-1
[R2-GigabitEthernet0/0/0]quit
[R2]int gi 0/0/1
[R2-GigabitEthernet0/0/1]isis enable
[R2-GigabitEthernet0/0/1]isis circuit-level level-1-2
[R2-GigabitEthernet0/0/1]quit
```

查看R1与R2分别查看ISIS邻居已建立：

```
[R1-GigabitEthernet0/0/1]dis isis peer

                        Peer information for ISIS(1)

  System Id     Interface          Circuit Id       State HoldTime Type     PRI
------------------------------------------------------------------------------
0000.0000.0002  GE0/0/1            0000.0000.0001.01 Up   27s      L1(L1L2) 64
0000.0000.0002  GE0/0/1            0000.0000.0001.01 Up   26s      L2(L1L2) 64

Total Peer(s): 2
[R1-GigabitEthernet0/0/1]
```

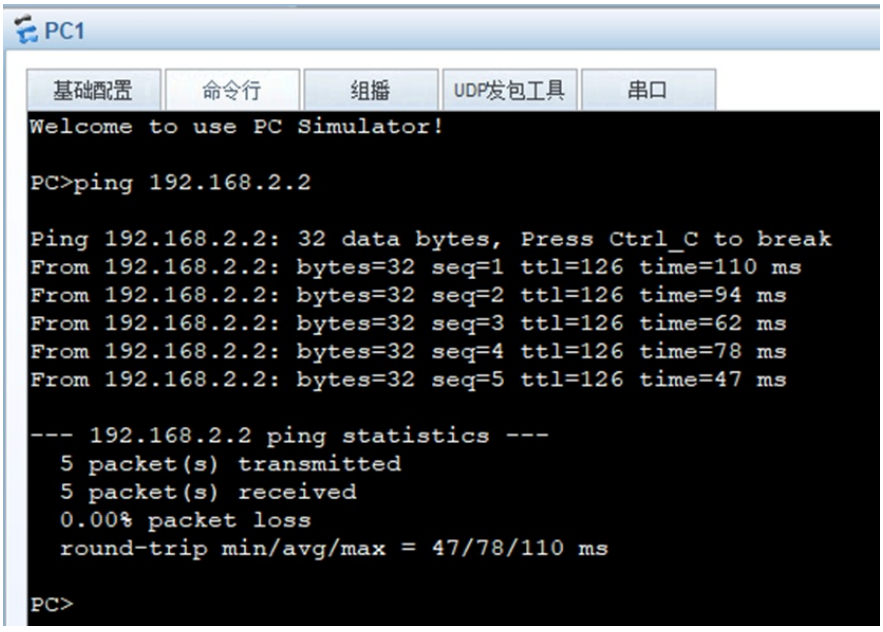
```
[R2-isis-1]dis isis peer

                        Peer information for ISIS(1)

  System Id     Interface          Circuit Id       State HoldTime Type     PRI
------------------------------------------------------------------------------
0000.0000.0001  GE0/0/1            0000.0000.0001.01 Up   9s       L1(L1L2) 64
0000.0000.0001  GE0/0/1            0000.0000.0001.01 Up   8s       L2(L1L2) 64

Total Peer(s): 2
```

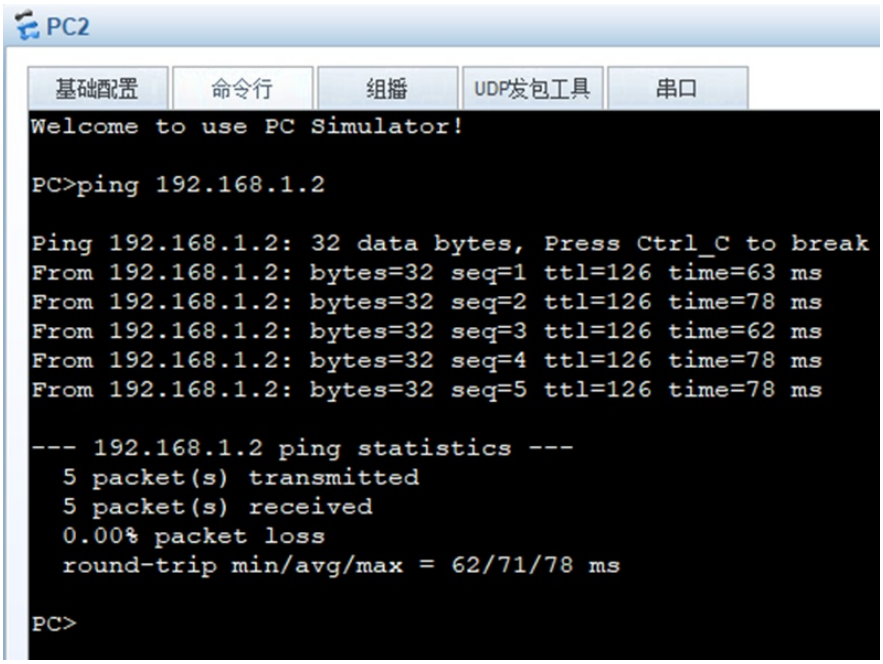
查看R1、R2的路由表，均已学习到了路由：

```
[R1-GigabitEthernet0/0/1]dis ip ro
Route Flags: R - relay, D - download to fib
------------------------------------------------------------------------------
Routing Tables: Public
         Destinations : 7        Routes : 7

Destination/Mask    Proto   Pre  Cost      Flags NextHop         Interface

        10.0.0.0/30  Direct  0    0           D   10.0.0.1        GigabitEthernet
0/0/1
        10.0.0.1/32  Direct  0    0           D   127.0.0.1       GigabitEthernet
0/0/1
       127.0.0.0/8   Direct  0    0           D   127.0.0.1       InLoopBack0
       127.0.0.1/32  Direct  0    0           D   127.0.0.1       InLoopBack0
     192.168.1.0/24  Direct  0    0           D   192.168.1.1     GigabitEthernet
0/0/0
     192.168.1.1/32  Direct  0    0           D   127.0.0.1       GigabitEthernet
0/0/0
     192.168.2.0/24  ISIS-L1 15   20          D   10.0.0.2        GigabitEthernet
0/0/1

[R1-GigabitEthernet0/0/1]
```

```
[R2-isis-1]dis ip routing-table
Route Flags: R - relay, D - download to fib
------------------------------------------------------------------------------
Routing Tables: Public
         Destinations : 7        Routes : 7

Destination/Mask    Proto   Pre  Cost      Flags NextHop         Interface

       10.0.0.0/30  Direct  0    0           D   10.0.0.2        GigabitEthernet
0/0/1
       10.0.0.2/32  Direct  0    0           D   127.0.0.1       GigabitEthernet
0/0/1
      127.0.0.0/8   Direct  0    0           D   127.0.0.1       InLoopBack0
      127.0.0.1/32  Direct  0    0           D   127.0.0.1       InLoopBack0
    192.168.1.0/24  ISIS-L1 15   20          D   10.0.0.1        GigabitEthernet
0/0/1
    192.168.2.0/24  Direct  0    0           D   192.168.2.1     GigabitEthernet
0/0/0
    192.168.2.1/32  Direct  0    0           D   127.0.0.1       GigabitEthernet
0/0/0

[R2-isis-1]
```

PC分别填写IP地址，且能相互PING通。





至此，单区域ISIS典型组网配置案例已完成！