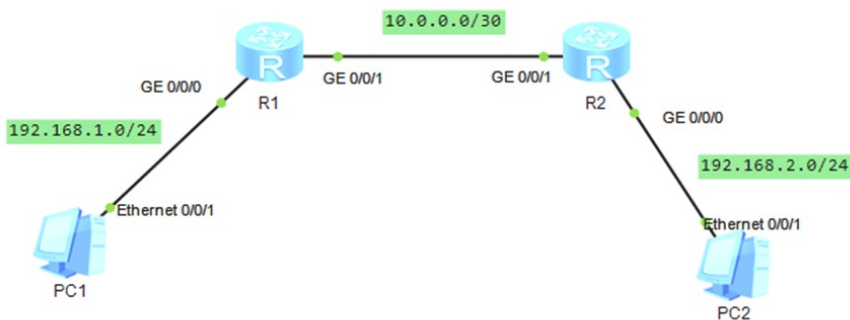


组网及说明



组网说明：本案例采用ENSP模拟器来模拟ISIS区域MD5认证，实现路由器之间ISIS路由协议的安全对接，保障网络的安全。

配置步骤

- 1、按照网络拓扑图配置IP地址。
- 2、配置R1、R2路由器的ISIS及区域MD5认证

配置关键点

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-GigabitEthernet0/0/0]isis enable
[R1-GigabitEthernet0/0/0]quit
[R1]int gi 0/0/1
[R1-GigabitEthernet0/0/1]isis enable
[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]netwo
[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]quit
[R2]int gi 0/0/1
[R2-GigabitEthernet0/0/1]isis enable
[R2-GigabitEthernet0/0/1]quit

```

分别查看R1、R2均已建立ISIS邻居关系：

```

[R1]dis isis peer

Peer information for ISIS(1)

System Id      Interface      Circuit Id      State HoldTime Type      PRI
-----
0000.0000.0002 GE0/0/1        0000.0000.0001.02 Up    28s    L1 (L1L2) 64
0000.0000.0002 GE0/0/1        0000.0000.0001.02 Up    30s    L2 (L1L2) 64

Total Peer(s) : 2
[R1]

```

```

[R2]dis isis peer

Peer information for ISIS(1)

System Id      Interface      Circuit Id      State HoldTime Type      PRI
-----
0000.0000.0001 GE0/0/1        0000.0000.0001.02 Up    8s     L1 (L1L2) 64
0000.0000.0001 GE0/0/1        0000.0000.0001.02 Up    8s     L2 (L1L2) 64

Total Peer(s) : 2
[R2]

```

查看R1、R2的路由表，均已通过ISIS学习到对端发布的路由：

```

[R1]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  10.0.0.1          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

```

```

[R2]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]

```

PC分别填写IP地址，且能相互PING通：

PC1

基础配置 命令行 组播 UDP发包工具 串口

主机名:

MAC 地址: 54-89-98-50-02-09

IPv4 配置

静态 DHCP 自动获取 DNS 服务器地址

IP 地址: 192.168.1.2 DNS1: 0.0.0.0

子网掩码: 255.255.255.0 DNS2: 0.0.0.0

网关: 192.168.1.1

PC2

基础配置 命令行 组播 UDP发包工具 串口

主机名:

MAC 地址: 54-89-98-F6-7E-01

IPv4 配置

静态 DHCP 自动获取 DNS 服务器地址

IP 地址: 192.168.2.2 DNS1: 0.0.0.0

子网掩码: 255.255.255.0 DNS2: 0.0.0.0

网关: 192.168.2.1

PC1

基础配置 命令行 组播 UDP发包工具 串口

```
Welcome to use PC Simulator!

PC>ping 192.168.2.2

Ping 192.168.2.2: 32 data bytes, Press Ctrl_C to break
From 192.168.2.2: bytes=32 seq=1 ttl=126 time=93 ms
From 192.168.2.2: bytes=32 seq=2 ttl=126 time=78 ms
From 192.168.2.2: bytes=32 seq=3 ttl=126 time=93 ms
From 192.168.2.2: bytes=32 seq=4 ttl=126 time=47 ms
From 192.168.2.2: bytes=32 seq=5 ttl=126 time=78 ms

--- 192.168.2.2 ping statistics ---
 5 packet(s) transmitted
 5 packet(s) received
 0.00% packet loss
 round-trip min/avg/max = 47/77/93 ms

PC>
```

PC2

基础配置 命令行 组播 UDP发包工具 串口

```
Welcome to use PC Simulator!

PC>ping 192.168.1.2

Ping 192.168.1.2: 32 data bytes, Press Ctrl_C to break
From 192.168.1.2: bytes=32 seq=1 ttl=126 time=47 ms
From 192.168.1.2: bytes=32 seq=2 ttl=126 time=78 ms
From 192.168.1.2: bytes=32 seq=3 ttl=126 time=63 ms
From 192.168.1.2: bytes=32 seq=4 ttl=126 time=63 ms
From 192.168.1.2: bytes=32 seq=5 ttl=126 time=62 ms

--- 192.168.1.2 ping statistics ---
 5 packet(s) transmitted
 5 packet(s) received
 0.00% packet loss
 round-trip min/avg/max = 47/62/78 ms

PC>
```

至此，ISIS区域MD5认证典型组网配置案例已完成！