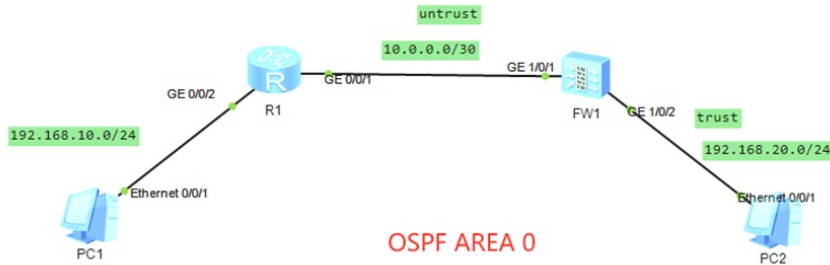# 【MVS】华为防火墙路由模式典型组网配置案例-OSPF

网络相关　**韦家宁**　2024-09-13 发表

组网及说明

组网说明：

　　本案例采用ENSP模拟器的防火墙来部署路由模式的典型配置，安全域在网络拓扑图中已经有了明确的标识，全网通过OSPF路由协议实现PC之间的互通。

配置思路：

1、按照网络拓扑图配置IP地址和OSPF。

2、配置防火墙的安全域和安全策略。

配置步骤

R1：

<Huawei>u t m

Info: Current terminal monitor is off.

<Huawei>u t d

Info: Current terminal debugging is off.

<Huawei>system

Enter system view, return user view with Ctrl+Z.

[Huawei]sysname R1

[R1]int gi 0/0/2

[R1-GigabitEthernet0/0/2]ip address 192.168.10.1 24

[R1-GigabitEthernet0/0/2]quit

[R1]int gi 0/0/1

[R1-GigabitEthernet0/0/1]ip address 10.0.0.1 30

[R1-GigabitEthernet0/0/1]quit

[R1]ospf 1 router-id 10.0.0.1

[R1-ospf-1]area 0.0.0.0

[R1-ospf-1-area-0.0.0.0]network 10.0.0.0 0.0.0.3

[R1-ospf-1-area-0.0.0.0]network 192.168.10.0 0.0.0.255

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

[R1-ospf-1]quit

FW1：

<USG6000V1>u t m

Info: Current terminal monitor is off.

<USG6000V1>u t d

Info: Current terminal debugging is off.

<USG6000V1>system

Enter system view, return user view with Ctrl+Z.

[USG6000V1]sysname FW1

[FW1]int gi 1/0/1

[FW1-GigabitEthernet1/0/1]ip address 10.0.0.2 30

[FW1-GigabitEthernet1/0/1]quit

[FW1]int gi 1/0/2

[FW1-GigabitEthernet1/0/2]ip address 192.168.20.1 24

[FW1-GigabitEthernet1/0/2]quit

[FW1]ospf 1 router-id 10.0.0.2

[FW1-ospf-1]area 0.0.0.0

[FW1-ospf-1-area-0.0.0.0]network 10.0.0.0 0.0.0.3

[FW1-ospf-1-area-0.0.0.0]network 192.168.20.0 0.0.0.255

[FW1-ospf-1-area-0.0.0.0]quit

[FW1-ospf-1]quit

[FW1]firewall zone trust

[FW1-zone-trust]add int gi 1/0/2

[FW1-zone-trust]quit

[FW1]firewall zone untrust

[FW1-zone-untrust]add int gi 1/0/1

[FW1-zone-untrust]quit

[FW1]security-policy

[FW1-policy-security]default action permit

Warning:Setting the default packet filtering to permit poses security risks. You
 are advised to configure the security policy based on the actual data flows. Ar
e you sure you want to continue?[Y/N]y

[FW1-policy-security]quit

使用dis ospf peer命令分别查看FW1和R1的OSPF邻居关系建立的情况，已完成建立！

```
[FW1]dis ospf peer
2024-09-13 03:26:06.990

        OSPF Process 1 with Router ID 10.0.0.2
              Neighbors

 Area 0.0.0.0 interface 10.0.0.2(GigabitEthernet1/0/1)'s neighbors
 Router ID: 10.0.0.1        Address: 10.0.0.1
   State: Full  Mode:Nbr is  Slave  Priority: 1
   DR: 10.0.0.1  BDR: 10.0.0.2  MTU: 0
   Dead timer due in 34  sec
   Retrans timer interval: 5
   Neighbor is up for 00:00:42
   Authentication Sequence: [ 0 ]


[FW1]
```

```
[R1]dis ospf peer

        OSPF Process 1 with Router ID 10.0.0.1
              Neighbors

 Area 0.0.0.0 interface 10.0.0.1(GigabitEthernet0/0/1)'s neighbors
 Router ID: 10.0.0.2        Address: 10.0.0.2
   State: Full  Mode:Nbr is  Master  Priority: 1
   DR: 10.0.0.1  BDR: 10.0.0.2  MTU: 0
   Dead timer due in 36  sec
   Retrans timer interval: 5
   Neighbor is up for 00:01:31
   Authentication Sequence: [ 0 ]
```

使用dis ip routing-table命令查看FW1和R1的路由表，均能学习到对端传递过来的路由。

```
[FW1]dis ip routing-table
2024-09-13 03:27:36.510
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
1/0/1
      10.0.0.2/32   Direct  0    0         D    127.0.0.1       GigabitEthernet
1/0/1
     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
   192.168.10.0/24  OSPF    10   2         D    10.0.0.1        GigabitEthernet
1/0/1
   192.168.20.0/24  Direct  0    0         D    192.168.20.1    GigabitEthernet
1/0/2
   192.168.20.1/32  Direct  0    0         D    127.0.0.1       GigabitEthernet
1/0/2
```

```
[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
    192.168.10.0/24   Direct  0    0           D     192.168.10.1    GigabitEthernet
0/0/2
    192.168.10.1/32   Direct  0    0           D     127.0.0.1       GigabitEthernet
0/0/2
    192.168.20.0/24   OSPF    10   2           D     10.0.0.2        GigabitEthernet
0/0/1
```

PC分别填写IP地址，且能相互PING通。

至此，华为防火墙路由模式典型组网配置案例（OSPF）已完成！