

# 知 F1060 EBGP MD5认证典型组网配置案例

设备部署方式 H3C模拟器 韦家宁 2020-03-30 发表

## 组网及说明



### 组网说明:

本案例采用H3C HCL模拟器的F1060防火墙来模拟EBGP MD5认证的典型组网。为了实现PC之间相互PING通，本案例采用EBGP的方式实现，同时为了保证EBGP邻居的合法性，因此采用EBGP MD5加密认证。

## 配置步骤

- 1、按照网络拓扑图正确配置IP地址
- 2、FW1、FW2建立EBGP邻居关系
- 3、FW1与FW2之间采用EBGP MD5认证。

## 配置关键点

```
FW1 :
<H3C>sys
System View: return to User View with Ctrl+Z.
[H3C]sysname FW1
[FW1]acl basic 2002
[FW1-acl-ipv4-basic-2002]rule 0 permit source any
[FW1-acl-ipv4-basic-2002]quit
[FW1]
[FW1]zone-pair security source trust destination untrust
[FW1-zone-pair-security-Trust-Untrust]packet-filter 2002
[FW1-zone-pair-security-Trust-Untrust]quit
[FW1]
[FW1]zone-pair security source untrust destination trust
[FW1-zone-pair-security-Untrust-Trust]packet-filter 2002
[FW1-zone-pair-security-Untrust-Trust]quit
[FW1]
[FW1]zone-pair security source trust destination local
[FW1-zone-pair-security-Trust-Local]packet-filter 2002
[FW1-zone-pair-security-Trust-Local]quit
[FW1]
[FW1]zone-pair security source local destination trust
[FW1-zone-pair-security-Local-Trust]packet-filter 2002
[FW1-zone-pair-security-Local-Trust]quit
[FW1]
[FW1]zone-pair security source untrust destination local
[FW1-zone-pair-security-Untrust-Local]packet-filter 2002
[FW1-zone-pair-security-Untrust-Local]quit
[FW1]
[FW1]zone-pair security source local destination untrust
[FW1-zone-pair-security-Local-Untrust]packet-filter 2002
[FW1-zone-pair-security-Local-Untrust]quit
[FW1]
[FW1]zone-pair security source trust destination trust
[FW1-zone-pair-security-Trust-Trust]packet-filter 2002
```

```
[FW1-zone-pair-security-Trust-Trust]quit
[FW1]
[FW1]zone-pair security source untrust destination untrust
[FW1-zone-pair-security-Untrust-Untrust]packet-filter 2002
[FW1-zone-pair-security-Untrust-Untrust]quit
[FW1]int loopback 0
[FW1-LoopBack0]ip address 1.1.1.1 32
[FW1-LoopBack0]quit
[FW1]int gi 1/0/2
[FW1-GigabitEthernet1/0/2]ip address 192.168.1.1 24
[FW1-GigabitEthernet1/0/2]quit
[FW1]int gi 1/0/3
[FW1-GigabitEthernet1/0/3]des <connect to FW2>
[FW1-GigabitEthernet1/0/3]ip address 10.0.0.1 30
[FW1-GigabitEthernet1/0/3]quit
[FW1]security-zone name Trust
[FW1-security-zone-Trust]import interface GigabitEthernet 1/0/2
[FW1-security-zone-Trust]quit
[FW1]security-zone name Untrust
[FW1-security-zone-Untrust]import interface GigabitEthernet 1/0/3
[FW1-security-zone-Untrust]import interface LoopBack 0
[FW1-security-zone-Untrust]quit
[FW1]bgp 100
[FW1-bgp-default]router-id 1.1.1.1
[FW1-bgp-default]peer 10.0.0.2 as-number 200
[FW1-bgp-default]peer 10.0.0.2 password simple admin
[FW1-bgp-default]address-family ipv4 unicast
[FW1-bgp-default-ipv4]peer 10.0.0.2 enable
[FW1-bgp-default-ipv4]network 192.168.1.0 255.255.255.0
[FW1-bgp-default-ipv4]quit
[FW1-bgp-default]quit
```

FW2:

<H3C>sys

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

```
[H3C]sysname FW2
```

```
[FW2]acl basic 2002
```

```
[FW2-acl-ipv4-basic-2002]rule 0 permit source any
```

```
[FW2-acl-ipv4-basic-2002]quit
```

```
[FW2]
```

```
[FW2]zone-pair security source trust destination untrust
```

```
[FW2-zone-pair-security-Trust-Untrust]packet-filter 2002
```

```
[FW2-zone-pair-security-Trust-Untrust]quit
```

```
[FW2]
```

```
[FW2]zone-pair security source untrust destination trust
```

```
[FW2-zone-pair-security-Untrust-Trust]packet-filter 2002
```

```
[FW2-zone-pair-security-Untrust-Trust]quit
```

```
[FW2]
```

```
[FW2]zone-pair security source trust destination local
```

```
[FW2-zone-pair-security-Trust-Local]packet-filter 2002
```

```
[FW2-zone-pair-security-Trust-Local]quit
```

```
[FW2]
```

```
[FW2]zone-pair security source local destination trust
```

```
[FW2-zone-pair-security-Local-Trust]packet-filter 2002
```

```
[FW2-zone-pair-security-Local-Trust]quit
```

```
[FW2]
```

```
[FW2]zone-pair security source untrust destination local
```

```
[FW2-zone-pair-security-Untrust-Local]packet-filter 2002
```

```
[FW2-zone-pair-security-Untrust-Local]quit
```

```
[FW2]
```

```
[FW2]zone-pair security source local destination untrust
```

```
[FW2-zone-pair-security-Local-Untrust]packet-filter 2002
```

```
[FW2-zone-pair-security-Local-Untrust]quit
```

```
[FW2]
```

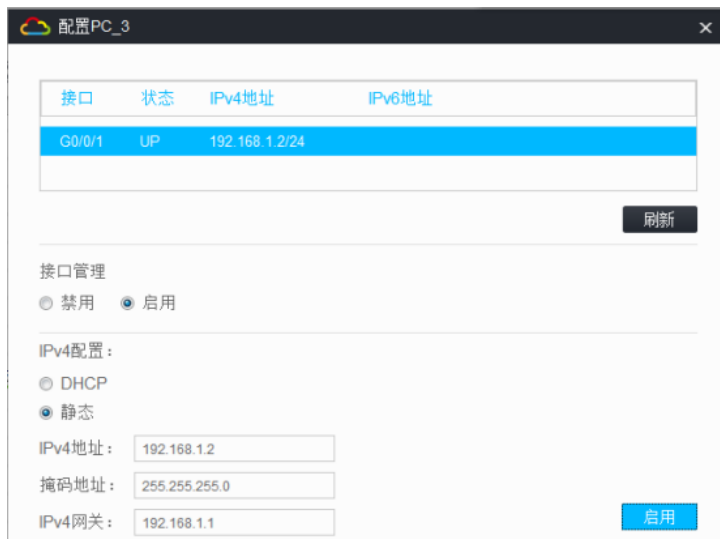
```

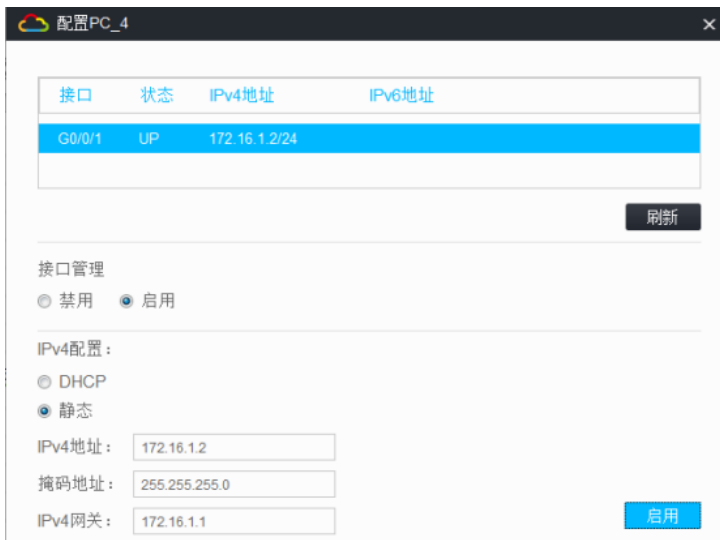
[FW2]zone-pair security source trust destination trust
[FW2-zone-pair-security-Trust-Trust]packet-filter 2002
[FW2-zone-pair-security-Trust-Trust]quit
[FW2]
[FW2]zone-pair security source untrust destination untrust
[FW2-zone-pair-security-Untrust-Untrust]packet-filter 2002
[FW2-zone-pair-security-Untrust-Untrust]quit
[FW2]int loopback 0
[FW2-LoopBack0]ip address 2.2.2.2 32
[FW2-LoopBack0]quit
[FW2]int gi 1/0/2
[FW2-GigabitEthernet1/0/2]ip address 172.16.1.1 24
[FW2-GigabitEthernet1/0/2]quit
[FW2]int gi 1/0/3
[FW2-GigabitEthernet1/0/3]des <connect to FW1>
[FW2-GigabitEthernet1/0/3]ip address 10.0.0.2 30
[FW2-GigabitEthernet1/0/3]quit
[FW2]security-zone name Trust
[FW2-security-zone-Trust]import interface GigabitEthernet 1/0/2
[FW2-security-zone-Trust]quit
[FW2]security-zone name Untrust
[FW2-security-zone-Untrust]import interface LoopBack 0
[FW2-security-zone-Untrust]import interface GigabitEthernet 1/0/3
[FW2-security-zone-Untrust]quit
[FW2]bgp 200
[FW2-bgp-default]router-id 2.2.2.2
[FW2-bgp-default]peer 10.0.0.1 as-number 100
[FW2-bgp-default]peer 10.0.0.1 password simple admin
[FW2-bgp-default]address-family ipv4 unicast
[FW2-bgp-default-ipv4]peer 10.0.0.1 enable
[FW2-bgp-default-ipv4]network 172.16.1.0 255.255.255.0
[FW2-bgp-default-ipv4]quit
[FW2-bgp-default]quit

```

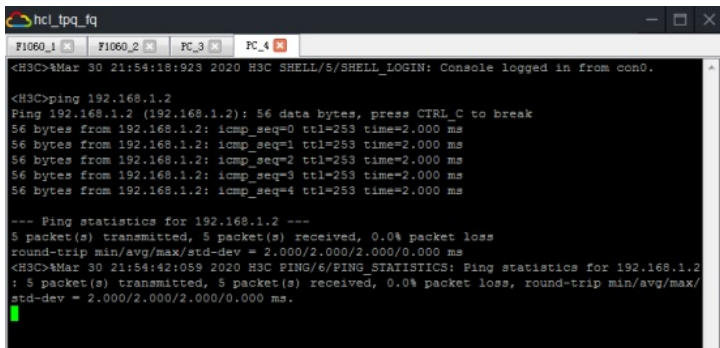
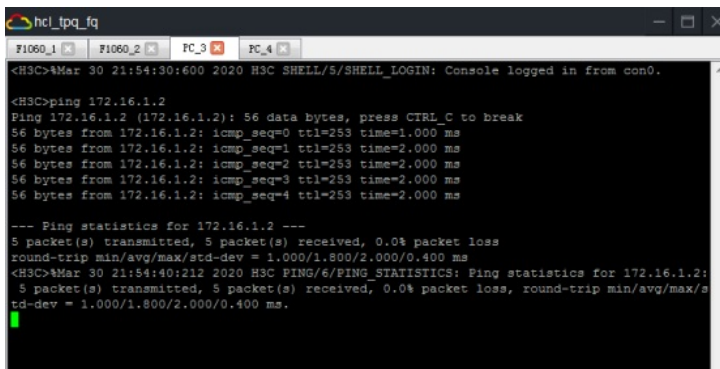
测试：

PC都填写IP地址：

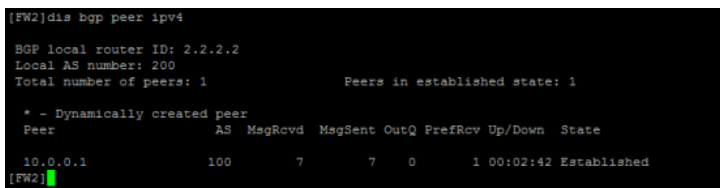
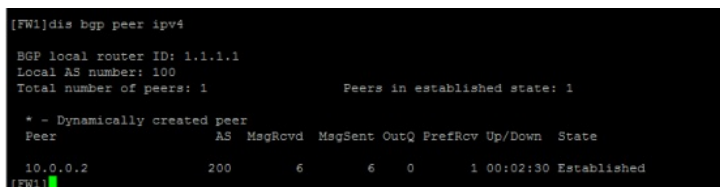




PC之间可以相互PING通:



分别查看FW1、FW2的BGP邻居信息:



分别查看FW1、FW2的路由表:

```
[FW1]dis ip routing-table
Destinations : 18      Routes : 18

Destination/Mask    Proto  Pre Cost    NextHop      Interface
0.0.0.0/32          Direct 0 0          127.0.0.1    InLoop0
1.1.1.1/32          Direct 0 0          127.0.0.1    InLoop0
10.0.0.0/30         Direct 0 0          10.0.0.1     GE1/0/3
10.0.0.0/32         Direct 0 0          10.0.0.1     GE1/0/3
10.0.0.1/32         Direct 0 0          127.0.0.1    InLoop0
10.0.0.3/32         Direct 0 0          10.0.0.1     GE1/0/3
127.0.0.0/8         Direct 0 0          127.0.0.1    InLoop0
127.0.0.0/32        Direct 0 0          127.0.0.1    InLoop0
127.0.0.1/32        Direct 0 0          127.0.0.1    InLoop0
127.255.255.255/32 Direct 0 0          127.0.0.1    InLoop0
172.16.1.0/24       BGP    255 0          10.0.0.2     GE1/0/3
192.168.1.0/24      Direct 0 0          192.168.1.1  GE1/0/2
192.168.1.0/32      Direct 0 0          192.168.1.1  GE1/0/2
192.168.1.1/32      Direct 0 0          127.0.0.1    InLoop0
192.168.1.255/32   Direct 0 0          192.168.1.1  GE1/0/2
224.0.0.0/4         Direct 0 0          0.0.0.0      NULL0
224.0.0.0/24        Direct 0 0          0.0.0.0      NULL0
255.255.255.255/32 Direct 0 0          127.0.0.1    InLoop0
[FW1]
```

```
[FW2]dis ip routing-table
Destinations : 18      Routes : 18

Destination/Mask    Proto  Pre Cost    NextHop      Interface
0.0.0.0/32          Direct 0 0          127.0.0.1    InLoop0
2.2.2.2/32          Direct 0 0          127.0.0.1    InLoop0
10.0.0.0/30         Direct 0 0          10.0.0.2     GE1/0/3
10.0.0.0/32         Direct 0 0          10.0.0.2     GE1/0/3
10.0.0.2/32         Direct 0 0          127.0.0.1    InLoop0
10.0.0.3/32         Direct 0 0          10.0.0.2     GE1/0/3
127.0.0.0/8         Direct 0 0          127.0.0.1    InLoop0
127.0.0.0/32        Direct 0 0          127.0.0.1    InLoop0
127.0.0.1/32        Direct 0 0          127.0.0.1    InLoop0
127.255.255.255/32 Direct 0 0          127.0.0.1    InLoop0
172.16.1.0/24       Direct 0 0          172.16.1.1   GE1/0/2
172.16.1.0/32       Direct 0 0          172.16.1.1   GE1/0/2
172.16.1.1/32       Direct 0 0          127.0.0.1    InLoop0
172.16.1.255/32     Direct 0 0          172.16.1.1   GE1/0/2
192.168.1.0/24      BGP    255 0          10.0.0.1     GE1/0/3
224.0.0.0/4         Direct 0 0          0.0.0.0      NULL0
224.0.0.0/24        Direct 0 0          0.0.0.0      NULL0
255.255.255.255/32 Direct 0 0          127.0.0.1    InLoop0
[FW2]
```

至此，F1060 EBGp MD5认证典型组网配置案例已完成！