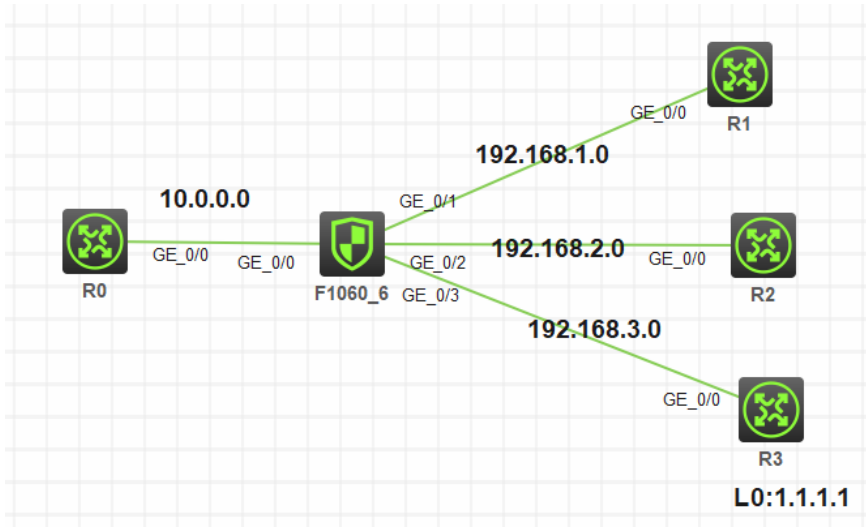


策略路由apply continue参数说明

策略路由 王金秋 2021-12-21 发表

组网及说明



R0访问1.1.1.1，防火墙上存在静态路由指向R3

在防火墙上使用PBR

节点10让R0访问1.1.1.1的流量扔到R1上，并使用apply continue

节点20让R0访问1.1.1.1的流量扔到R2上

问题描述

根据官网说明如下：

apply continue	设置匹配成功的当前节点转发失败后继续进行后续节点的处理	如果当前节点中未配置影响报文转发路径的五个 apply 子句，或者配置了这五个子句中的一个或多个，但配置的子句都失效（下一跳不可达、出接口 down 或者报文在指定 VPN 内转发失败），且查找普通路由表也转发失败时，会进行下一节点的处理
----------------	-----------------------------	---

测试是否会访问路由表后再查后续节点

过程分析

模拟器测试就很简单了，直接在R1, R2, R3上开启debug ip packet 即可看到FW上配置如下：

```
<FW>display ip policy-based-route
Policy name: 1
 node 10 permit:
   if-match acl 3000
   apply loadshare next-hop
   apply next-hop 192.168.1.2
   apply continue
 node 20 permit:
   if-match acl 3000
   apply next-hop 192.168.2.2
```

```
Destinations : 21      Routes : 21

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          Static   60   0        192.168.3.2     GE1/0/3
10.0.0.0/24         Direct   0    0        10.0.0.2        GE1/0/0
10.0.0.0/32         Direct   0    0        10.0.0.2        GE1/0/0
10.0.0.2/32         Direct   0    0        127.0.0.1       InLoop0
10.0.0.255/32       Direct   0    0        10.0.0.2        GE1/0/0
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
192.168.2.0/24      Direct   0    0        192.168.2.1     GE1/0/2
192.168.2.0/32      Direct   0    0        192.168.2.1     GE1/0/2
192.168.2.1/32      Direct   0    0        127.0.0.1       InLoop0
192.168.2.255/32    Direct   0    0        192.168.2.1     GE1/0/2
192.168.3.0/24      Direct   0    0        192.168.3.1     GE1/0/3
192.168.3.0/32      Direct   0    0        192.168.3.1     GE1/0/3
192.168.3.1/32      Direct   0    0        127.0.0.1       InLoop0
192.168.3.255/32    Direct   0    0        192.168.3.1     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
More
```

如上配置，R0上ping测试：

结果如下，R1会受到数据包

```
<R1>debugging ip pa
<R1>debugging ip packet
<R1>*Dec 21 10:59:47:972 2021 R1 IPFW/7/IPFW_PACKET:
Receiving, interface = GigabitEthernet0/0
version = 4, headlen = 20, tos = 0
pktlen = 84, pktid = 36, offset = 0, ttl = 254, protocol = 1
checksum = 45186, s = 10.0.0.1, d = 1.1.1.1
channelID = 0, vpn-InstanceIn = 0, vpn-InstanceOut = 0.
prompt: Receiving IP packet from interface GigabitEthernet0/0.
Payload: ICMP
type = 8, code = 0, checksum = 0x0fd7.

*Dec 21 10:59:47:972 2021 R1 IPFW/7/IPFW_PACKET:
Sending, interface = GigabitEthernet0/0
version = 4, headlen = 20, tos = 0
pktlen = 84, pktid = 36, offset = 0, ttl = 253, protocol = 1
checksum = 45442, s = 10.0.0.1, d = 1.1.1.1
channelID = 0, vpn-InstanceIn = 0, vpn-InstanceOut = 0.
prompt: Sending IP packet received from interface GigabitEthernet0/0 at interface GigabitEthernet0/0.
Payload: ICMP
type = 8, code = 0, checksum = 0x0fd7.
```

由于模拟器问题，删除192.168.1.2地址后，策略路由依旧有效，所以进行接口shutdown模拟然后继续R0ping测试，可以ping通，并且到达了R3上

```
<R3>de
<R3>debugging ip pa
解决方法 21 11:01:32:019 2021 R3 IPFW/7/IPFW_PACKET:
Receiving, interface = GigabitEthernet0/0
version = 4, headlen = 20, tos = 0
pktlen = 84, pktid = 41, offset = 0, ttl = 254, protocol = 1
checksum = 45181, s = 10.0.0.1, d = 1.1.1.1
channelID = 0, vpn-InstanceIn = 0, vpn-InstanceOut = 0.
prompt: Receiving IP packet from interface GigabitEthernet0/0.
Payload: ICMP
type = 8, code = 0, checksum = 0xc193.

*Dec 21 11:01:32:019 2021 R3 IPFW/7/IPFW_PACKET:
Delivering, interface = GigabitEthernet0/0
version = 4, headlen = 20, tos = 0
pktlen = 84, pktid = 41, offset = 0, ttl = 254, protocol = 1
checksum = 45181, s = 10.0.0.1, d = 1.1.1.1
channelID = 0, vpn-InstanceIn = 0, vpn-InstanceOut = 0.
prompt: Forwarding IP packet to upper layer.
Payload: ICMP
type = 8, code = 0, checksum = 0xc193.

*Dec 21 11:01:32:019 2021 R3 IPFW/7/IPFW_PACKET:
```

删除静态路由后

R0ping测试，到达了R2上

```
<R2>
<R2>
<R2>*Dec 21 11:02:36:545 2021 R2 IPFW/7/IPFW_PACKET:
Receiving, interface = GigabitEthernet0/0
version = 4, headlen = 20, tos = 0
pktlen = 84, pktid = 51, offset = 0, ttl = 254, protocol = 1
checksum = 45171, s = 10.0.0.1, d = 1.1.1.1
channelID = 0, vpn-InstanceIn = 0, vpn-InstanceOut = 0.
prompt: Receiving IP packet from interface GigabitEthernet0/0.
Payload: ICMP
type = 8, code = 0, checksum = 0x68c0.

*Dec 21 11:02:36:545 2021 R2 IPFW/7/IPFW_PACKET:
Sending, interface = GigabitEthernet0/0
version = 4, headlen = 20, tos = 0
pktlen = 84, pktid = 51, offset = 0, ttl = 253, protocol = 1
checksum = 45427, s = 10.0.0.1, d = 1.1.1.1
channelID = 0, vpn-InstanceIn = 0, vpn-InstanceOut = 0.
prompt: Sending IP packet received from interface GigabitEthernet0/0 at interface GigabitEthernet0/0.
Payload: ICMP
type = 8, code = 0, checksum = 0x68c0.
```

