

组网及说明

FD00::xxx:xx:132:23:2/64 pc1-----FD00::xxx:xx:132:23:1/64 reth2 fw reth1 2408:xxx:xx
x:1003::3/64----- pc2 2408:xxx:xxx:1003::2

问题描述

pc1pingpc2触发nat66表象构建但是业务不通

过程分析

fw上reth1下面配置nat66

```
#  
nat66 prefix source FD00:x:x:5023:: 64 2408:xxx:xxx:1003:: 64  
ipv6 address 2408:xxx:xxx:1003::3/64  
#  
ipv6 route-static :: 0 2408:xxx:xxx:1003::2  
#
```

初步看路由转换配置无异常

按照防火墙常规定位过程先查看会话，发现是有记录的，状态处理仅到了ICMPV6_REQUEST，初步怀疑pc2没有回包

[H3C]dis nat66 ses ver

Slot 1:

Initiator:

```
Source IP/port: FD00::xxx:xx:132:23:2/1  
Destination IP/port: 2408:xxx:xxx:1003::2/32768  
VPN instance/VLAN ID/Inline ID: -/-/  
Protocol: IPV6-ICMP(58)  
Inbound interface: Reth2  
Source security zone: Trust
```

Responder:

```
Source IP/port: 2408:xxx:xxx:1003::2/1  
Destination IP/port: 2408:xxx:xxx:1003:xxx:xxx:23:2/33024  
VPN instance/VLAN ID/Inline ID: -/-/  
Protocol: IPV6-ICMP(58)  
Inbound interface: Reth1  
Source security zone: Untrust
```

State: ICMPV6_REQUEST

Application: ICMP

Rule ID: 0

Rule name: Local-Trust

Start time: 2020-08-13 18:20:28 TTL: 49s

Initiator->Responder: 4 packets 320 bytes

Responder->Initiator: 0 packets 0 bytes

Total sessions found: 1

debug nat和ip packet看数据包转换和转发正常，大概率为pc2电脑的问题

```
*Aug 13 18:31:31:101 2020 H3C NAT/7/COMMON: -Context=1;
```

```
PACKET: (Reth2-out-session) Protocol: ICMPV6
```

```
fd00::xxx:xx:132:23:2: 1 - 2408:xxx:xxx:1003::2:32768(VPN: 0) ----->
```

```
2408:xxx:xxx:1003:8c7a:132:23:2: 1 - 2408 :xxx:xxx: 1003::2:32768(VPN: 0)
```

```
*Aug 13 18:31:31:101 2020 H3C IP6FW/7/IP6FW_PACKET: -Context=1;
```

```
Sending, interface = Reth1, version = 6, traffic class = 0,
```

```
flow label = 0, payload length = 40, protocol = 58, hop limit = 127,
```

```
Src = 2408 :xxx:xxx: 1003:8c7a:132:23:2, Dst = 2408 :xxx:xxx: 1003::2,
```

```
prompt: Sending the packet from Reth2 through Reth1.
```

协调现场进行抓包，发现pc2没有回应数据包，但是现场表示换了其他的电脑也是一样的情况，排查陷入僵局；

翻看nat66限制那个地方找到突破点，

1. 配置限制和指导

转换后的源IPv6地址前缀不能与NAT66设备的外网地址前缀以及目的外网地址前缀相同

发现现场没有避开这个限制

解决方法

将nat66配置修正避开限制指导说明后现场问题解决