

知 F1003-L-C4G拨号成功后ping不通外网

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问题描述

4G拨号能成功但是ping不通外网，debug看有发出。会话看没有回包。但是把卡换到手机或者4G路由器上就都正常。同型号设备测试同样故障。

过程分析

查看拨号口状态正常

```
[H3C]display cellular
```

Cellular1/0/0:

Hardware Information:

Model: L716-CN

Modem Firmware Version: 17016

Hardware Version:

International Mobile Subscriber Identity (IMSI): 460062091231046

International Mobile Equipment Identity (IMEI): 869312061153457

Modem Status: Online

Profile Information:

Profile 1: Active

PDP Type: IPv4

Header Compression: OFF

Data Compression: OFF

Access Point Name (APN): shqnx04

Modem Setup Information:

Diagnostics Monitor: Close

Network Information:

Current Service Status: Service available

Current Roaming Status: Home

Current Data Bearer Technology: Unknown

Network Selection Mode: Automatic

Network Connection Mode: Unknown

Current Network Connection: LTE

Mobile Network Name: Unknown

Downstream Bandwidth: Unknown

Radio Information:

Current RSSI: -55 dBm

Modem Security Information:

PIN Verification: Disabled

PIN Status: Unknown

SIM Status: OK

Debug ip icmp信息看公网没有回包

```
<H3C>ping 114.114.114.114
```

Ping 114.114.114.114 (114.114.114.114): 56 data bytes, press CTRL+C to break

*Apr 28 16:20:47:811 2023 PS4673 SOCKET/7/ICMP:

ICMP Output:

ICMP Packet: src = 10.45.39.121, dst = 114.114.114.114
type = 8, code = 0 (echo)

Request time out

*Apr 28 16:20:50:062 2023 PS4673 SOCKET/7/ICMP:

ICMP Output:

ICMP Packet: src = 10.45.39.121, dst = 114.114.114.114
type = 8, code = 0 (echo)

查看会话看公网也没有回包

```
Dis session table ipv4 protocol icmp verbose
```

Slot 1:

Initiator:

Source IP/port: 10.45.39.121/1288

Destination IP/port: 114.114.114.114/2048

DS-Lite tunnel peer: -

VPN instance/VLAN ID/Inline ID: -/-

Protocol: ICMP(1)

Inbound interface: InLoopBack0

Source security zone: Local

Responder:

Source IP/port: 114.114.114.114/1288
Destination IP/port: 10.45.39.121/0
DS-Lite tunnel peer: -

解决方法

VPN instance/VLAN ID/Inline ID: -/-/

将手工配置的静态路由去掉

```
Inbound interface: Eth-channel1/0/0:0
Source security zone: Untrust
State: ICMP_REQUEST
Application: ICMP
Rule ID: 0
Rule name: Local->other
Start time: 2023-04-28 16:21:35 TTL: 55s
Initiator->Responder:      5 packets   420 bytes
Responder->Initiator:      0 packets   0 bytes
```

但是同样的卡放在手机上都是正常的。同样的卡放在我司路由器上也是正常的。后将手工配置的默认路由去掉后正常了。

```
[H3C] ip route-static 0.0.0.0 0 Eth-channel1/0/0:0
[H3C]
[H3C]dis ip routing-table
Destinations : 15          Routes : 15
Destination/Mask    Proto Pre Cost       NextHop             Interface
0.0.0.0/0           Static 60 0                0.0.0.0             E-Ch1/0/0:0
0.0.0.0/32          Direct 0 0                127.0.0.1           InLoop0
10.141.82.208/29    Direct 0 0                10.141.82.214      E-Ch1/0/0:0
10.141.82.212/32    Direct 0 0                10.141.82.212      E-Ch1/0/0:0
10.141.82.214/32    Direct 0 0                127.0.0.1           InLoop0
10.141.82.215/32    Direct 0 0                10.141.82.214      E-Ch1/0/0:0
127.0.0.0/8         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
192.168.200.0/24    Direct 0 0                192.168.200.1      GE1/0/2
192.168.200.1/32    Direct 0 0                127.0.0.1           InLoop0
192.168.200.255/32 Direct 0 0                192.168.200.1      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
[H3C]
[H3C]ping -a 192.168.200.1 223.5.5.5
Ping 223.5.5.5 (223.5.5.5) from 192.168.200.1: 56 data bytes, press CTRL+C to break
Request time out
Request time out
Request time out
Request time out
Request time out
```

```
[H3C]un ip route-static 0.0.0.0 0 Eth-channel1/0/0:0
[H3C]dis ip routing-table
Destinations : 15          Routes : 15
Destination/Mask    Proto Pre Cost       NextHop             Interface
0.0.0.0/0           Static 70 0                10.141.82.212      E-Ch1/0/0:0
0.0.0.0/32          Direct 0 0                127.0.0.1           InLoop0
10.141.82.208/29    Direct 0 0                10.141.82.214      E-Ch1/0/0:0
10.141.82.212/32    Direct 0 0                10.141.82.212      E-Ch1/0/0:0
10.141.82.214/32    Direct 0 0                127.0.0.1           InLoop0
10.141.82.215/32    Direct 0 0                10.141.82.214      E-Ch1/0/0:0
127.0.0.0/8         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
192.168.200.0/24    Direct 0 0                192.168.200.1      GE1/0/2
192.168.200.1/32    Direct 0 0                127.0.0.1           InLoop0
192.168.200.255/32 Direct 0 0                192.168.200.1      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
[H3C]ping -a 192.168.200.1 223.5.5.5
Ping 223.5.5.5 (223.5.5.5) from 192.168.200.1: 56 data bytes, press CTRL+C to break
56 bytes from 223.5.5.5: icmp_seq=0 ttl=117 time=101.421 ms
56 bytes from 223.5.5.5: icmp_seq=1 ttl=117 time=21.973 ms
56 bytes from 223.5.5.5: icmp_seq=2 ttl=117 time=17.098 ms
56 bytes from 223.5.5.5: icmp_seq=3 ttl=117 time=16.433 ms
56 bytes from 223.5.5.5: icmp_seq=4 ttl=117 time=27.443 ms
--- Ping statistics for 223.5.5.5 ---
```

经确认由于终端卡UE attach 4g网络建立默认承载的时候,核心网分配地址的方法不一样,核心网pgw使用dhcp分配地址,就会自动下发默认路由.如果是通过nas sm信令分配地址,就不会下发默认路由;

