

知 某局点LTE-FI电信网络下无法拨号问题经验案例

wlan接入 樊昊 2015-07-29 发表

某客户反馈采用我司LA4320设备4G上行拨号失败，无法成功连接到运营商网络。

现场反馈AP在设置好默认出口路由的情况下，ping DNS不通，无法上线。收集设备Cellular-Ethernet1/0/1信息发现该接口状态为DOWN，收发数据报文均为零。

```
[LA4320]disp interface Cellular-Ethernet 1/0/1
```

```
Cellular-Ethernet1/0/1 current state: DOWN
```

```
Line protocol current state: UP (spoofing)
```

```
Description: Cellular-Ethernet1/0/1 Interface
```

```
The Maximum Transmit Unit is 1500
```

```
Internet protocol processing : disabled
```

```
IP Packet Frame Type: PKTFMT_ETHNT_2, Hardware Address: 586a-b13a-ca00
```

```
IPv6 Packet Frame Type: PKTFMT_ETHNT_2, Hardware Address: 586a-b13a-ca00
```

```
RSSI Standby State: Normal
```

```
Transfer time: 00:00:00
```

```
Last clearing of counters: Never
```

```
  Last 300 seconds input rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
```

```
  Last 300 seconds output rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
```

```
Input: 0 packets, 0 bytes
```

```
  0 broadcasts, 0 multicasts
```

```
  0 errors, 0 runts, 0 giants
```

```
  0 CRC, 0 align errors, 0 overruns
```

```
  0 dribbles, 0 aborts, 0 no buffers
```

```
  0 frame errors
```

```
Output:0 packets, 0 bytes
```

```
  0 errors, 0 underruns, 0 collisions
```

```
  0 deferred
```

从搜集的disp cellular-ethernet 1/0/1 all信息中可以看出:

```
disp cellular-ethernet 1/0/1 all
```

```
Modem State:
```

```
Hardware Information
```

```
=====
```

```
Model = U8300C
```

```
Manufacturer = LONGSUNG
```

```
Modem Firmware Version = QA30002.1.2_MV11(4534_1.0.9_L1203)
```

```
International Mobile Equipment Identity (IMEI) = 862104021057234
```

```
Mobile Equipment Identifier (MEID) = A1000038E2DDFA
```

```
Hardware Version = 30000
```

```
Modem Status = Online
```

```
Profile Information
```

```
=====
```

```
Profile index = 1
```

```
PDP Type = IPv4v6, Header Compression = OFF
```

```
Data Compression = OFF
```

Authentication = NONE

Username =

* - Default profile

Network Information

=====

Current Service Status = Limited

Registration Status = Searching

Current Roaming Status = Roaming

Current Data Bearer Technology = Unknown

Network Selection Mode = Automatic

Mobile Country Code (MCC) = 460

Mobile Network Code (MNC) = 00

Radio Information

=====

Technology Preference = No preference specified (AUTO)

Technology Selected = TD-SCDMA

Configured LTE Band = 1,3,5,38,39,40,41

TD-SCDMA related info

Current RSSI = -79 dBm

Current RSCP = -79 dBm

Current ECIO = -5 dB

HDR (1xEVDO) related info

Current RSSI = No Signal

Current ECIO = -2 dBm

Current IO = -106 dBm

Modem Security Information

=====

PIN Verification = Unknown

PIN Status = Not Initialized

SIM Status = Not Inserted

GPS Information

=====

GPS info

GPS State: Enabled
GPS Mode Configured: Standalone
Latitude: 0 Deg 0 Min 0 Sec North
Longitude: 0 Deg 0 Min 0 Sec East
Timestamp (UTC): 00/00/0000 00:00:00
Local time: 00/00/0000 00:00:00
Heading: 0.00, Velocity Horiz: 0.00, Velocity Vert: 0.00
Height (MSL): -18.00 m

Satellite Info

中**Current Service Status = Limited**, 该卡可能欠费, 后跟运营商确认卡确实属于欠费状态; 并且显示中

Technology Preference = No preference specified (AUTO)

Technology Selected = TD-SCDMA

Configured LTE Band = 1,3,5,38,39,40,41

现场设备为电信网络, 该设置明显错误 (TD-SCDMA为移动3G), 故首先在Cell口mode cdma auto

在更换SIM卡以及4G模式设置之后, 显示状态变成:

[LA4320]disp cellular-ethernet 1/0/1 all

Modem State:

Hardware Information

=====

Model = U8300C

Manufacturer = LONGSUNG

Modem Firmware Version = QA30002.1.0_MV11

International Mobile Equipment Identity (IMEI) = 862104020445406

Mobile Equipment Identifier (MEID) = A1000038E2030F

Hardware Version = 30000

Modem Status = Online

Profile Information

=====

Profile index = 1

PDP Type = IPv4v6, Header Compression = OFF

Data Compression = OFF

Authentication = NONE

Username =

* - Default profile

Network Information

=====

Current Service Status = Limited

Registration Status = Searching

Current Roaming Status = Roaming

Current Data Bearer Technology = Unknown

Network Selection Mode = Automatic

Mobile Country Code (MCC) = 460

Mobile Network Code (MNC) = 01

Radio Information

=====

Technology Preference = CDMA AUTO

Technology Selected = LTE

Configured LTE Band =

1,2,3,4,5,6,7,8,9,10,11,12,13,14,17,18,19,20,21,23,24,25,26,33,34,35,36,37,38,39,40,41,42,43

HDR (1xEVDO) related info

Current RSSI = No Signal

Current ECIO = -2 dBm

Current IO = -106 dBm

LTE related info

Current RSSI = -86 dBm

Current RSRQ = -11 dB

Current RSRP = -114 dBm

Current SNR = 12 dB

Tx Power = Invalid

Active Band = E-UTRA Operating Band 3

Modem Security Information

=====

PIN Verification = Unknown

PIN Status = Not Initialized

SIM Status = Not Inserted

GPS Information

=====

GPS info

GPS State: Enabled

GPS Mode Configured: Standalone

Latitude: 29 Deg 59 Min 59 Sec North

Longitude: 103 Deg 59 Min 59 Sec East

Timestamp (UTC): 00/00/0000 00:00:00

Local time: 00/00/0000 00:00:00

Heading: 0.00, Velocity Horiz: 0.00, Velocity Vert: 0.00

Height (MSL): 31.00 m

Satellite Info

可以看到模式正确，且LTE Band也变为正常。

Technology Preference = CDMA AUTO

Technology Selected = LTE

Configured LTE Band =

1,2,3,4,5,6,7,8,9,10,11,12,13,14,17,18,19,20,21,23,24,25,26,33,34,35,36,37,38,39,40,41,42,43

但Current Service Status 仍然为Limited。

此外观察到LTE related info

Current RSSI = -86 dBm

Current RSRQ = -11 dB

Current RSRP = -114 dBm

Current SNR = 12 dB

信号较差，确认之后现场天线安装有误，需要将扁平的天线安装在两端的ANT接口(LTE天线)，中间的接入圆形的天线（GPS）。

联系当地运营商查询了当地的APN接入设置，发现与北京电信有所区别，需要重新设置。

```
[LA4320-Cellular-Ethernet1/0/1]profile create 1 static ctnet authentication-mode chap user ctnet@my  
cdma.cn password vnet.mobi
```

后成功拨号，设备能够正常访问外网。

1. 天线正常安装
2. 指定模式为CDMA
3. 添加APN设置。

```
[LA4320-Cellular-Ethernet1/0/1]mode cdma auto
```

```
[LA4320-Cellular-Ethernet1/0/1]profile create 1 static ctnet authentication-mode chap user ctnet@  
mycdma.cn password vnet.mobi
```