

现场使用LA3608E做业务回传测试，用PC模拟虚拟无线客户端向AC传输文件速率只有200KB/S左右。收到现场反馈后，我们立刻收集信息对问题进行排查。

现场组网：



一、确认AC AP版本

1、AC版本：

```

H3C Comware Platform Software
Comware Software, Version 5.20, Release 3509P55
Copyright (c) 2004-2016 Hangzhou H3C Tech. Co., Ltd. All rights reserved.
H3C WX3010E uptime is 0 week, 2 days, 19 hours, 5 minutes
H3C WX3010E with 1 RMI XLS 208 750MHz Processor
512M bytes DDR2
16M bytes Flash Memory
999M bytes CFCard Memory
  
```

2、AP版本：

```

H3C Comware Platform Software
Comware Software, Version 5.20, Release 0010P18
Copyright (c) 2004-2016 Hangzhou H3C Tech. Co., Ltd. All rights reserved.
H3C LA3608E uptime is 0 week, 0 day, 0 hour, 3 minutes
AC和AP版本适配。
  
```

二、查看配置

1、AC上AP模板配置：

```

wlan ap znjt model LA3608E id 7
map-configuration la3608egm.txt
serial-id 219801A0J2M175000125
radio 1
service-template 10 vlan-id 10
radio enable
  
```

2、AP拨号配置：

```

interface Cellular-Ethernet2/0
ip address cellular-allocated
dialer enable-circular
dialer-group 1
dialer timer idle 0
dialer timer wait-carrier 15
dialer timer autodial 20
dialer number *99# autodial
  
```

配置没有问题。

三、验证配置

1、在AC上查看AP上线情况：

```

=====display wlan ap all=====
=====
Total Number of APs configured      : 2
Total Number of configured APs connected : 1
Total Number of auto APs connected   : 0
Total Number of APs connected       : 1
Maximum AP capacity                  : 12
Remaining AP capacity                 : 11

      AP Profiles
State : I = Idle, J = Join, JA = JoinAck, IL = ImageLoad
      C = Config, R = Run, KU = KeyUpdate, KC = KeyCfm
      M = Master, B = Backup
-----
  
```

AP Name	State Model	Serial-ID
znjt1	I LA3608E	219801A0JNM16B000055
znjt	R/M LA3608E	219801A0J2M175000125

2、在AC上查看虚拟客户端上线情况：

```
=====display wlan client=====
```

```
-----
Total Number of Clients      : 1
```

```
Client Information
```

```
SSID: znjt
```

```
-----
```

MAC Address	User Name	APID/RID	IP Address	IPv6 Address	VLAN
0021-ccd1-9b93 -NA-		7 /1	192.168.1.103 -NA-		10

```
-----
```

AP和终端注册状态正常。

四、查看拨号状态

1、查看SIM卡状态

Modem Security Information

```
=====
```

```
PIN Verification = Disabled
```

```
PIN Status = PIN Requirement Disabled
```

```
Number of PIN Retries Remaining = 3
```

```
Number of PUK Retries Remaining = 10
```

```
SIM Status = OK (SIM卡状态正常)
```

2、查看注册网络状态

Network Information

```
=====
```

```
Current Service Status = Service Available (运营商服务可用)
```

```
Registration Status = Registered
```

```
Current Service = Packet-switched
```

```
Current Roaming Status = Home
```

```
Current Data Bearer Technology = LTE
```

```
Network Selection Mode = Automatic
```

```
Mobile Network Name = 460 11
```

```
Mobile Country Code (MCC) = 460
```

```
Mobile Network Code (MNC) = 11
```

```
Location Area Code (LAC) = 65534
```

```
Tracking Area Code(TAC) = 256
```

```
Cell ID = 1060105
```

3、查看信号强度

Radio Information

```
=====
```

```
Technology Preference = LTE only (现场SIM卡只支持LTE网络)
```

```
Technology Selected = LTE
```

```
Configured LTE Band = 1
```

```
HDR (1xEVDO) related info
```

```
-----
```

```
Current RSSI = No Signal
```

```
Current ECIO = -2 dBm
```

```
Current IO = -106 dBm
```

```
LTE related info
```

```
-----
```

```
Current RSSI = -59 dBm
```

```
Current RSRQ = -8 dB
```

```
Current RSRP = -89 dBm (信号为-89dBm)
```

```
Current SNR = 21 dB
```

```
Tx Power = Invalid
```

```
Active Band = E-UTRA Operating Band 1
```

可以看到现场SIM卡只支持4G LTE网络，设备接入4G时需要关心的信号强度值由RSRP来描述，通常在-75dBm以上时较好，在-90dBm以下时较差。由此可以判断此时的信号强度较差导致传输速率低。

让现场换一个4G信号较好的地方测试，上传速率正常。

遇到此类问题时，从版本、配置、AP客户端状态、SIM卡状态逐一仔细排查就可以发现问题的根因，

另外4G信号的强度需要关心RSRP的值。