

某局点分层AC组网local AC异常上下线问题处理经验案例

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某局点开局部署分层AC，现场反馈local ac会异常上下线，导致ap无法正常注册到local ac上。

%Nov 6 11:00:19:003 2017 shiyansanxiao CWC/4/CWC_LOCAL_AC_DOWN: CAPWAP tunnel to central AC 10.54.101.2 went down. Reason: Neighbor dead timer expired.

%Nov 6 11:00:19:003 2017 shiyansanxiao APMGR/6/APMGR_LOCAL_AC_OFFLINE: Local AC FitAP went offline. State changed to Idle.

%Nov 6 11:00:21:003 2017 shiyansanxiao CWC/6/CWC_LOCAL_AC_UP: CAPWAP tunnel to central AC 10.54.101.2 went up.

1、核对基础配置：

central ac:

wlan ap-group dssyxx

control-address enable //使能二层发现

control-address ip 10.50.150.1 //指定二次发现的地址为local地址

ap ssyxx-104

ap ssyxx-108

ap ssyxx-204

local ac:

wlan local-ac enable //使能local功能

wlan local-ac capwap source-vlan 1100 //配置上线vlan

wlan central-ac ip 10.54.101.2 //指定central ac地址

interface Vlan-interface1100

ip address 10.50.150.1 255.255.255.0

2、查看local ac注册详细信息

Local AC name : dssyxx

Local AC ID : 1035

State : Run

Online time : 0 days 0 hours 0 minutes 15 seconds //上线15秒

System up time : N/A

Model : S5560

Serial ID : 210235A1FYC175000053

MAC address : 1cab-3410-fc70

IP address : 10.50.150.1

UDP port number : 48591

H/W version : Ver.B

S/W version : E1207

Boot version : 122

Description : Not configured

Priority : 4

Echo interval : 10 seconds

Fragment size (data) : 65535

Fragment size (control) : 1450

Discovery type : Static Configuration

Retransmission count : 3

Retransmission interval : 5 seconds

Firmware upgrade : Disabled

Sent control packets : 8

Received control packets : 8

Last reboot reason : N/A

Latest IP address : 10.50.150.1

Tunnel down reason : Failed to retransmit message //隧道断开的原因是重传消息失败

Connection AP count : 0

Tunnel encryption : Disabled

3、采集debug信息分析

590389 *Nov 7 16:13:44:614 2017 LZ_edu_AC CWS/7/ERROR: Failed to match WTP event request

with SeqNum 10 from AP at 10.50.150.1:42554
598259 *Nov 7 16:13:47:062 2017 LZ_edu_AC CWS/7/ERROR: Failed to match echo request with SeqNum 10 from AP at 10.50.150.1:42554
601417 *Nov 7 16:13:47:623 2017 LZ_edu_AC CWS/7/ERROR: Failed to match WTP event request with SeqNum 10 from AP at 10.50.150.1:42554
608941 *Nov 7 16:13:50:623 2017 LZ_edu_AC CWS/7/ERROR: Failed to match WTP event request with SeqNum 10 from AP at 10.50.150.1:42554
656017 *Nov 7 16:14:07:014 2017 LZ_edu_AC CWS/7/RCV_PKT: Received discovery request with SeqNum 0 from AP at 10.50.150.1:42555.
*Nov 7 16:19:41:598 2017 LZ_edu_AC CWS/7/TMR: Retransmission Timer of ApEntity:1035 expired , msgtype = 0x7.
*Nov 7 16:19:41:599 2017 LZ_edu_AC CWS/7/ERROR: Failed to retransmit configuration update request for 3 times.
227949 *Nov 7 16:11:49:808 2017 LZ_edu_AC CWS/7/TMR: Retransmission Timer of ApEntity:1035 expired, msgtype = 0x7.
244711 *Nov 7 16:11:54:808 2017 LZ_edu_AC CWS/7/TMR: Retransmission Timer of ApEntity:1035 expired, msgtype = 0x7.
264302 *Nov 7 16:11:59:808 2017 LZ_edu_AC CWS/7/TMR: Retransmission Timer of ApEntity:1035 expired, msgtype = 0x7.
264304 *Nov 7 16:11:59:809 2017 LZ_edu_AC CWS/7/ERROR: Failed to retransmit configuration update request for 3 times.
284780 %Nov 7 16:12:04:809 2017 LZ_edu_AC CWS/4/CWS_LOCAL_AC_DOWN: CAPWAP tunnel to local AC dssyxx went down. Reason: Failed to retransmit message.
可以发现3次重传配置信息失败，然后紧接着local ac下线。

4、怀疑是链路问题，比如大包不通等等导致，于是做PING测试。

<LZ_edu_AC>ping -s 2000 10.50.150.1

Ping 10.50.150.1 (10.50.150.1): 2000 data bytes, press CTRL_C to break

2000 bytes from 10.50.150.1: icmp_seq=0 ttl=254 time=2.163 ms

2000 bytes from 10.50.150.1: icmp_seq=1 ttl=254 time=2.179 ms

2000 bytes from 10.50.150.1: icmp_seq=2 ttl=254 time=2.088 ms

2000 bytes from 10.50.150.1: icmp_seq=3 ttl=254 time=2.137 ms

2000 bytes from 10.50.150.1: icmp_seq=4 ttl=254 time=2.173 ms

大包能通，通过link-test检查链路质量

[LZ_edu_AC-probe]wlan ap-link-test 10.50.150.1 packet-length 2000 continuous rate 100 time 10

Transmitted packets : 1000

Received packets : 0

Packet loss : 100.00%

但是UDP的报文一个都不通，因为local ac能成功上线，所以应该不是中间设备拒绝了udp报文。

于是建议现场想办法通过下载来间接测试链路质量，发现只有下载速度很不稳定，只有900kb左右，而且时断时续，到目前为止基本可以定位是中间链路存在问题。

了解到链路存在质量问题，丢包现象之后，更换了小学和教体局链路之间的光电收发器，问题解决。

另外：在local AC侧把所有的终端都拔掉，只要一台电脑连接，测试了网速在900k左右，更换了光电收发器以后速度在10M左右，local ac和ap都正常上线，没有再出现掉线情况。