

某局点组网存在多台AC造成AP无法自动注册到特定AC的经验案例

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组网及说明

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问题描述

现场工程师反馈AC型号WAC380-120已有AP型号WAP712H在线正常运行，新增WAP712H自动注册无法上线，手动注册可以上线。

过程分析

一、查看配置

#

```
wlan auto-ap enable
```

```
wlan auto-persistent enable
```

#

自动AP注册及固化已开启。

二、确认license数量

```
=====display wlan ap all=====
```

```
Total number of APs: 139
```

```
Total number of connected APs: 127
```

```
Total number of connected manual APs: 127
```

```
Total number of connected auto APs: 0
```

```
Total number of connected common APs: 127
```

```
Total number of connected WTUs: 0
```

```
Total number of inside APs: 0
```

```
Maximum supported APs: 240
```

```
Remaining APs: 113
```

```
Total AP licenses: 120
```

Remaining AP licenses: 4

```
Sync AP licenses: 0
```

license有剩余。

三、收集debugging信息分析

AC debugging:

```
*Aug 28 12:45:24:134 2018 WAC380-2 CWS/7/RCV_PKT: Received discovery request from AP: IP address=10.0.10.154, MAC address=38ad-be00-1aa0, serial ID=219801A1B69178Q00664.
```

```
*Aug 28 12:45:24:135 2018 WAC380-2 CWS/7/EVENT: Filling AC Descriptor TLV. LicenseType[1] MaxSupportNum[240] JoinCount[0].
```

```
*Aug 28 12:45:24:135 2018 WAC380-2 CWS/7/SND_PKT: Sent discovery response with SeqNum 0 to AP at 10.0.10.154:2075.
```

```
*Aug 28 12:45:24:135 2018 WAC380-2 CWS/7/SND_PKT: Sent discovery response to AP at 10.0.10.154:2075, Length=128.
```

AP向AC发送了discovery request，AC回应了discovery response。后续一直重复该过程。

AP debugging:

```
*Sep 23 09:43:51:968 2016 H3C CWC/7/SND_PKT: Sent discovery request with SeqNum 0 to AC 25.5.255.255:5246.
```

```
*Sep 23 09:43:51:968 2016 H3C CWC/7/SND_PKT: Verbose info for discovery request sent to AC 25.5.255.255:5246, length=159.
```

```
*Sep 23 09:43:51:970 2016 H3C CWC/7/SND_PKT: Sent discovery request with SeqNum 0 to AC 22.4.0.1:140:5246.
```

```
*Sep 23 09:43:51:971 2016 H3C CWC/7/SND_PKT: Verbose info for discovery request sent to AC 22.4.0.1:140:5246, length=159.
```

```
*Sep 23 09:43:51:972 2016 H3C CWC/7/RCV_PKT: Received discovery response with SeqNum 0 from AC at 10.0.10.73:5246.
```

```
*Sep 23 09:43:51:973 2016 H3C CWC/7/RCV_PKT: Verbose info for discovery response from AC 10.0.10.73:5246, length=132.
```

```
*Sep 23 09:43:51:973 2016 H3C CWC/7/EVENT: Obtain IP for Resolving TLV,IP= 192.168.1.253.
```

```
*Sep 23 09:43:51:974 2016 H3C CWC/7/SND_PKT: Sent discovery request with SeqNum 0 to AC 192.168.1.253:5246.
```

```
*Sep 23 09:43:51:975 2016 H3C CWC/7/SND_PKT: Verbose info for discovery request sent to AC 19
```

2.168.1.253:5246, length=159.

***Sep 23 09:43:51:976 2016 H3C CWC/7/RCV_PKT: Received discovery response with SeqNum 0 from AC at 10.0.10.253:5246.**

*Sep 23 09:43:51:976 2016 H3C CWC/7/RCV_PKT: Verbose info for discovery response from AC 10.0.10.253:5246, length=128.

通过AP debugging，发现现场有两台AC给AP回应了discovery response报文。

经排查，现场网络中有一台TP-LINK路由器也给AP回应了discovery response报文导致AP无法自动注册。因为手动注册时，AP注册报文的内容和优先级不同，所以采用手动注册时AP可以正常上线。

解决方法

一、将TP-LINK路由器从网络中排除。

二、在AC上开启二次发现功能。

```
[H3C-wlan-global-configuration]control-address enable
```

二次发现AC功能用于向AP提供建立CAPWAP隧道的目的AC的IP地址。开启该功能后，AC发送的Discovery response报文中会携带CAPWAP Control IP Address消息元素，AP收到Discovery response报文后，将向消息元素中的IP地址发送Discovery request报文，达到二次发现AC的目的。