

## 知 某局点WX3510H AP上线异常、拿不到地址

wlan接入 AP管理 wlan优化 曾招维 2021-10-28 发表

### 组网及说明

AC——思科核心——S5130——AP

集中转发、AP二层注册、网关在思科核心、AP管理的DHCP地址池在AC。

#### 问题描述

现场反馈新增AP管理地址池70、71、72，相关AP上线异常，电脑接到5130上发现无法获取地址，手动写地址后可正常ping通AC、网关。

## 过程分析

在AC上开启debug发现地址池70、71、72分地址有异常，只有请求报文且显示无可用IP：

```
*Oct 28 09:58:26:530 2021 AC_WX3510H DHCP/7/EVENT: Receive a DHCPDISCOVER message from Vlan-interface70.
```

```
*Oct 28 09:58:26:530 2021 AC_WX3510H DHCP/7/ERROR: No free IP in the network 192.168.70.0.
```

```
*Oct 28 09:58:26:531 2021 AC_WX3510H DHCP/7/EVENT: Failed to allocate a lease to client.
```

```
*Oct 28 09:58:27:315 2021 AC_WX3510H DHCP/7/PACKET:
```

```
From 0.0.0.0 port 68, interface Vlan-interface71
```

```
Message type: REQUEST (1)
```

```
Hardware type: 1, Hardware address length: 6
```

```
Hops: 0, Transaction ID: 4094810419
```

```
Seconds: 42, Broadcast flag: 0
```

```
Client IP address: 0.0.0.0 Your IP address: 0.0.0.0
```

```
Server IP address: 0.0.0.0 Relay agent IP address: 0.0.0.0
```

```
Client hardware address: b845-f40f-97c0
```

```
Server host name: not configured
```

```
Boot file name: not configured
```

```
DHCP message type: DHCPDISCOVER (1)
```

命令行查看地址池display DHCP server free-ip未发现地址池70、71、72有可用IP，display DHCP server ip-in-use查看该地址池地址没有被使用，display DHCP server expired无超期地址，display DHCP server conflict无冲突地址。

```
dhcp server forbidden-ip 192.168.70.1 192.168.70.220
```

```
dhcp server forbidden-ip 192.168.70.251 192.168.70.255
```

```
dhcp server forbidden-ip 192.168.71.1 192.168.71.220
```

```
dhcp server forbidden-ip 192.168.71.251 192.168.71.255
```

```
dhcp server forbidden-ip 192.168.72.1 192.168.72.220
```

```
dhcp server forbidden-ip 192.168.72.251 192.168.72.255/虽然有禁用IP，但还是有一定数量IP可以分配的。
```

```
#
```

```
dhcp server ip-pool 70
```

```
gateway-list 192.168.70.254
```

```
network 192.168.70.0 mask 255.255.255.0
```

```
#
```

```
dhcp server ip-pool 71
```

```
gateway-list 192.168.71.254
```

```
network 192.168.71.0 mask 255.255.255.0
```

```
#
```

```
dhcp server ip-pool 72
```

```
gateway-list 192.168.72.254
```

```
network 192.168.72.0 mask 255.255.255.0
```

```
#
```

```
#
```

```
interface Vlan-interface70
```

```
description to_4F_70
```

```
ip address 192.168.70.250 255.255.255.0
```

```
#
```

```
interface Vlan-interface71
```

```
description to_4F_71
```

```
ip address 192.168.71.250 255.255.255.0
```

```
#
```

```
interface Vlan-interface72
```

```
description to_4F_72
```

```
ip address 192.168.72.250 255.255.255.0
```

```
#
```

现场将DHCP地址池全部移到思科核心后，地址分发正常，ap正常上线。

#### 解决方法

由于现场配置的dhcp server forbidden-ip配置较多，仔细查看配置发现dhcp server forbidden-ip 192.168.50.251 192.168.91.255这个将地址池70、71、72的地址覆盖，所以这些地址池会显示无可用地址。

优化上诉配置后，AP正常拿到地址上线。

