

知 H3C无线控制器IPv6无线网络接入配置举例(V7)

wlan接入

IPv6

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本文档介绍IPv6无线网络接入典型配置举例。

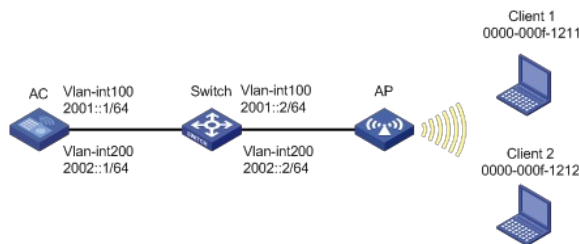
本文档适用于使用Comware V7软件版本的无线控制器和接入点产品，不严格与具体硬件版本对应，如果使用过程中与产品实际情况有差异，请参考相关产品手册，或以设备实际情况为准。

本文档中的配置均是在实验室环境下进行的配置和验证，配置前设备的所有参数均采用出厂时的缺省配置。如果您已经对设备进行了配置，为了保证配置效果，请确认现有配置和以下举例中的配置不冲突。

本文档假设您已了解IPv6基础与WLAN接入等相关特性。

如图1所示，无线网络采用集中式转发，三层交换机Switch作为DHCP server为AP和无线客户端分配地址，具体要求如下：

- 无线客户端Client 1与Client 2接入无线网络。
- 整网使用IPv6地址。



1.1 配置步骤

1.1.1 配置AC

(1) 配置AC的接口

创建VLAN 100及其对应的VLAN接口，并为该接口配置IPv6地址。AP将获取该IPv6地址与AC建立CAPWAP隧道。

```
system-view
```

```
[AC] vlan 100
```

```
[AC-vlan100] quit
```

```
[AC] interface vlan-interface 100
```

```
[AC-Vlan-interface100] ipv6 address 2001::1 64
```

```
[AC-Vlan-interface100] quit
```

创建VLAN 200及其对应的VLAN接口，并为该接口配置IPv6地址。Client将使用该VLAN接入无线网络。

```
[AC] vlan 200
```

```
[AC-vlan200] quit
```

```
[AC] interface vlan-interface 200
```

```
[AC-Vlan-interface200] ipv6 address 2002::1 64
```

```
[AC-Vlan-interface200] quit
```

配置与Switch相连的接口GigabitEthernet1/0/1的属性为Trunk，允许VLAN 1、VLAN 100和VLAN 200通过。

```
[AC] interface gigabitethernet 1/0/1
```

```
[AC-GigabitEthernet1/0/1] port link-type trunk
```

```
[AC-GigabitEthernet1/0/1] port trunk permit vlan 1 100 200
```

```
[AC-GigabitEthernet1/0/1] quit
```

(2) 配置无线服务模板

创建服务模板service，并进入无线服务模板视图。

```
[AC] wlan service-template service
```

配置SSID为service。

```
[AC-wlan-st-service] ssid service
```

配置无线服务模板VLAN为200。

```
[AC-wlan-st-service] vlan 200
```

开启无线服务模板。

```
[AC-wlan-st-service] service-template enable
```

```
[AC-wlan-st-service] quit
# 创建AP，配置AP名称为officeap，型号名称选择WA4320i-ACN，并配置序列号210235A1GQC158004457。

[AC] wlan ap officeap model WA4320i-ACN
[AC-wlan-ap-officeap] serial-id 210235A1GQC158004457
# 进入Radio1视图。

[AC-wlan-ap-officeap] radio 1
# 将无线服务模板service绑定到Radio 1，并开启射频。

[AC-wlan-ap-officeap-radio-1] service-template service
[AC-wlan-ap-officeap-radio-1] radio enable
[AC-wlan-ap-officeap-radio-1] quit
[AC-wlan-ap-officeap] quit
```

1.1.2 配置Switch

```
# 创建VLAN 100，用于转发AC和AP间CAPWAP隧道内的流量。

system-view
[Switch] vlan 100
[Switch-vlan100] quit
# 创建VLAN 200，用于转发Client无线报文。

[Switch] vlan 200
[Switch-vlan200] quit
# 配置Switch与AC相连的GigabitEthernet1/0/1接口的属性为Trunk，允许VLAN 1、VLAN 100和VLAN 200通过。

[Switch] interface gigabitethernet 1/0/1
[Switch-GigabitEthernet1/0/1] port link-type trunk
[Switch-GigabitEthernet1/0/1] port trunk permit vlan 1 100 200
[Switch-GigabitEthernet1/0/1] quit
# 配置Switch与AP相连的GigabitEthernet1/0/2接口属性为Access，并允许VLAN 100通过。

[Switch] interface gigabitethernet 1/0/2
[Switch-GigabitEthernet1/0/2] port link-type access
[Switch-GigabitEthernet1/0/2] port access vlan 100
# 使能PoE功能。

[Switch-GigabitEthernet1/0/2] poe enable
[Switch-GigabitEthernet1/0/2] quit
# 配置VLAN 100接口的IPv6地址。

[Switch] interface vlan-interface 100
[Switch-Vlan-interface100] ipv6 address 2001::2 64
[Switch-Vlan-interface100] quit
# 配置VLAN 200接口的IPv6地址。

[Switch] interface vlan-interface 200
[Switch-Vlan-interface200] ipv6 address 2002::2 64
[Switch-Vlan-interface200] quit
# 配置DHCPv6地址池1，用于为AP分配IPv6地址。

[Switch] ipv6 dhcp pool 1
[Switch-dhcp-pool-1] network 2001::/64
[Switch-dhcp-pool-1] gateway-list 2001::1
# 配置Option选项，使AP获取AC的IPv6地址。

[Switch-dhcp-pool-1] option 52 hex 07d10000000000000000000000000001
[Switch-dhcp-pool-1] quit
# 配置在VLAN 100接口下引用地址池1，并配置该接口工作在DHCPv6服务器模式。

[Switch] interface vlan-interface 100
[Switch-Vlan-interface100] ipv6 dhcp server apply pool 1
[Switch-Vlan-interface100] ipv6 dhcp select server
# 取消VLAN 100接口对RA消息发布的抑制。

[Switch-Vlan-interface100] undo ipv6 nd ra halt
[Switch-Vlan-interface100] quit
# 配置DHCPv6地址池2，用于为Client分配IPv6地址。

[Switch] ipv6 dhcp pool 2
```

```

[Switch-dhcp-pool-2] network 2002::/64
[Switch-dhcp-pool-2] gateway-list 2002::1
[Switch-dhcp-pool-2] quit
# 配置在VLAN 200接口下引用地址池2，并配置该接口工作在DHCPv6服务器模式。
[Switch] interface Vlan-interface 200
[Switch-Vlan-interface200] ipv6 dhcp server apply pool 2
[Switch-Vlan-interface200] ipv6 dhcp select server
# 取消VLAN 200接口下对RA消息发布的抑制。
[Switch-Vlan-interface200] undo ipv6 nd ra halt
[Switch-Vlan-interface200] quit

```

1.2 验证配置

在AC上可以通过**display wlan client**命令查看无线客户端的信息，从显示信息中可以看出，Client 1与Client 2成功接入IPv6无线网络。

```

[AC] display wlan client
Total number of clients: 2

```

MAC address	Username	APID/RID	IP address	VLAN ID
0000-000f-1211	N/A	1/1	2002::3	200
0000-000f-1212	N/A	1/1	2002::4	200

1.3 配置文件

```

. AC:

#
vlan 1
#
vlan 100
#
vlan 200
#
wlan service-template service
ssid service
vlan 200
service-template enable
#
interface Vlan-interface100
ipv6 address 2001::1/64
#
interface Vlan-interface200
ipv6 address 2002::1/64
#
interface GigabitEthernet1/0/1
port link-type trunk
port trunk permit vlan 1 100 200
#
wlan ap officeap model WA4320i-ACN
serial-id 210235A1GQC158004457
radio 1
radio enable
service-template service
#

. Switch:

#
vlan 1
#
vlan 100
#
vlan 200
#

```

```
ipv6 dhcp pool 1
network 2001::/64
option 52 hex 07d10000000000000000000000000001
gateway-list 2001::1
#
ipv6 dhcp pool 2
network 2002::/64
gateway-list 2002::1
#
interface Vlan-interface100
ipv6 dhcp select server
ipv6 dhcp server apply pool 1
ipv6 address 2001::2/64
undo ipv6 nd ra halt
#
interface Vlan-interface200
ipv6 dhcp select server
ipv6 dhcp server apply pool 2
ipv6 address 2002::2/64
undo ipv6 nd ra halt
#
interface GigabitEthernet1/0/1
port link-type trunk
port trunk permit vlan 1 100 200
#
interface GigabitEthernet1/0/2
port link-type access
port access permit vlan 100
poe enable
#
配置AP的序列号时请确保该序列号与AP唯一对应，AP的序列号可以通过AP设备背面的标签获取。
```