



# DHCP and NAT Functionality on Root Access Point

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## Information About DHCP and NAT Functionality on Root AP (RAP)



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**Note** This feature is applicable for Cisco Aironet 1542 series outdoor access points only.

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The access points associated to a mesh network can play one of the two roles:

- Root Access Point (RAP) - An access point can be a root access point for multiple mesh networks.
- Mesh Access Point (MAP) - An access point can be a mesh access point for only one single mesh network at a time.

### DHCP and NAT Functionality on Root AP - IPv4 Scenario

This feature enables the controller to send a TLV to RAP when a new RAP joins the controller.

The following covers the workflow:

- Controller pushes TLV to RAP for enabling DHCP and NAT functionality.
- Client associates to an SSID.
- RAP executes DHCP functionality to assign private IPv4 address to the client.
- RAP executes NAT functionality to get the private IPv4 address of the client and allow access to the network.

## Configuring DHCP Server on Root Access Point (RAP)

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>configure terminal</b> <b>Example:</b> Device# configure terminal	Enters global configuration mode.
<b>Step 2</b>	<b>ap profile <i>ap-profile-name</i></b> <b>Example:</b> Device(config)# ap profile ap-profile-name	Configures an AP Profile.
<b>Step 3</b>	<b>dhcp-server</b> <b>Example:</b> Device(config-ap-profile)# dhcp-server	Configures DHCP server on the root access point.
<b>Step 4</b>	<b>end</b> <b>Example:</b> Device(config-ap-profile)# end	Saves the configuration and exits configuration mode and returns to privileged EXEC mode.

## Verifying DHCP Server for Root AP Configuration

To verify the DHCP server for root AP configuration, use the following command:

```
Device# show ap config general
Cisco AP Name   : AP4C77.6DF2.D588
=====
<SNIP>
Dhcp Server                               : Enabled
```