DHCP and NAT Functionality on Root Access Point

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

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

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
Step 1	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.

Step 2	**ap profile** *ap-profile-name*
	
	Example:
	
	`Device(config)# ap profile`
	`ap-profile-name`
		Configures an AP Profile.

Step 3	**dhcp-server** **Example:** `Device(config-ap-profile)# dhcp-server`	Configures DHCP server on the root access point.
Step 4	**end** **Example:** `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
```