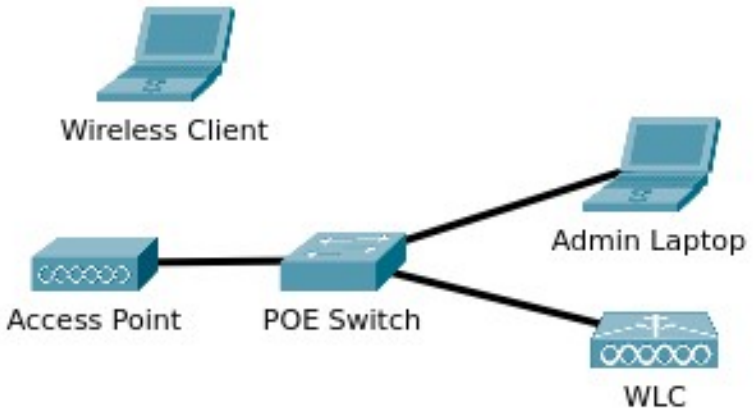
Instructor Signoff _____

Name _____ Period ___ Rack ___ Partner _____

Configure a Cisco 2504 WLC



Addressing Table

Device	Interface	IP Address
POE Switch	VLAN 10	10.0.0.2/24
Access Point	Ethernet	DHCP Client
WLC	Management	192.168.0.254/24
	Virtual interface	192.0.2.1
	VLAN 10	10.0.0.5/24
Admin Laptop	NIC	192.168.0.250/24
Wireless Client	Wireless NIC	DHCP Client

Objectives

Setup a wireless LAN controller and connect a light weight access point. Verify connectivity through wireless by pinging devices in the network over the wireless clients wireless interface.

Instructions

Part 1: Connect to the WLC management interface for configuration

Step 1: Assign an IP address to the Admin Laptop

Step 2: Connect all devices as shown in the topology

Connect all devices to the POE Switch. This must be a POE switch as it will provide power for the access point without the need for an external power supply. The exact ports used on the switch does not matter, however it must be connected to WLC port 1.

Step 3: Configure the switch

Connect to the switch over the console port.

a. Create two VLANs, 99 and 10. Assign VLAN 10 the IP address shown in the address table.
b. Set the link to the WLC as a trunk port. The links to the Admin Laptop and Access Point should be set to VLAN 99 access ports.

Step 4: Access the WLC from the Admin Laptop

Open the Firefox Web Browser on the Admin Laptop. Visit the page https://192.168.0.254. If everything is connected correctly you should be presented with the login page for the Wireless LAN Controller. Login using the username *cicso* and the password *P@ssword*.

Part 2: Configure the Wireless LAN Controller

Once you have logged in, proceed to the configuration menu by pressing the **Advanced** button in the top right corner. The tabs at the top of the page will be denoted by **bold** and the pages within the tabs on the left will be denoted with *italics.*

Step 1: Configure a management DHCP scope

a. Open the **Controller** tab
b. Navigate to the *Internal DHCP Server → DHCP Scope*
c. Create a new scope with the name of *management*
d. Click on the new scope to apply configurations
   Pool start: **192.168.0.10**
   Pool end: **192.168.0.20**
   Network: **192.168.0.0/24**
   Status: **Enabled**
e. Click **Apply** to save the configurations

Step 2: Configure a management DHCP scope

Repeat the process to create another DHCP scope with the name of clients. Assign the scope to a range of 10.0.0.10-10.0.0.20 in the 10.0.0.0/24 network. Enable and apply the scope.

Step 3: Edit the Management interface

The management interface now needs to be configured to use the DHCP scope as the default DHCP server.

a. Navigate to the **Controller** menu
b. Open the *Interface* page
c. Select the management interface for configuration

d. Under *DHCP Information* assign the primary DHCP server to the IP of the WLC virtual interface, 192.0.2.1.
e. Apply the changes made

Step 4: Create a new Interface for wireless client data

To prevent wireless clients from accessing the management interface of the WLC, a new interface with a separate VLAN tag must be created.

a. Create a new interface
b. Assign the interface the name *data* and a VLAN id of 10
c. Under *Physical Information* attach the interface to port 1
d. Assign the IP address listed in the addressing table
e. Because a default gateway must be set, use a placeholder of 10.0.0.10
f. Set the primary DHCP server to the IP address of the management interface
g. Apply the changes

Step 5: Create a new WLAN

The WLAN is where all the settings about a wireless network is defined and configured.

a. Open the **WLAN** menu
b. Create a new WLAN with the profile name of *Data*
c. Assign a unique SSID, example *Yourname-CCNA*
d. Assign the WLAN to the interface created in step 4
e. Navigate to the security option page
f. Under layer 2 security change the *Authentication Key Management* option to PSK
g. Set the password to *ccnaWirelessLab*
h. Apply changes

Step 5: Test wireless connectivity

The wireless network should now be broadcast by the wireless access point. Connect to the network from the Wireless Client laptop by pressing the small WiFi icon in the bottom right corner of the screen and entering your password.

a. From the Wireless Client, ping the switch VLAN 10 interface, the pings should succeed