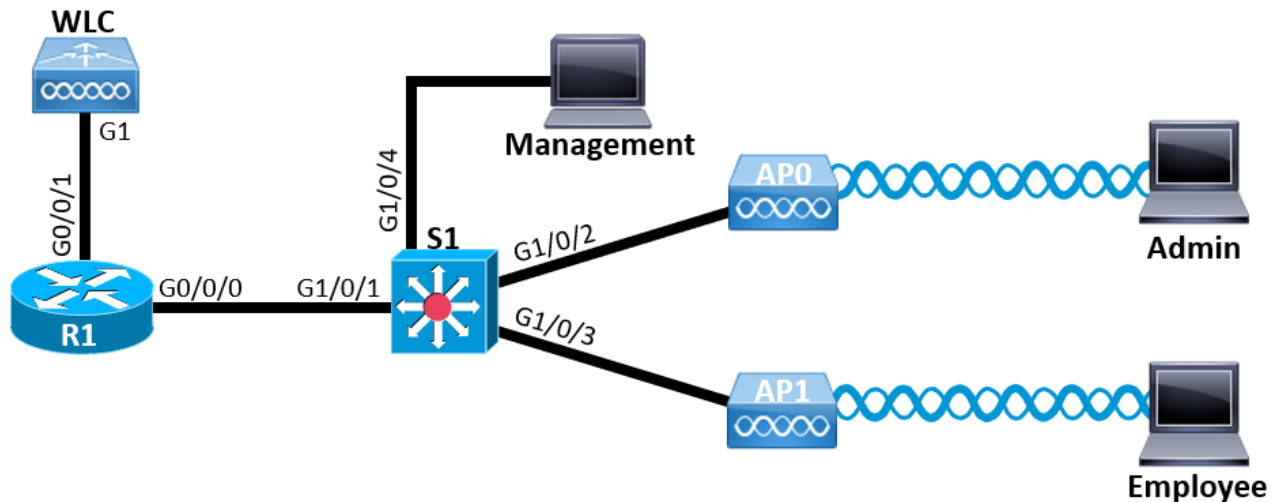


CMCIS 157 (CCNA Wireless)

Lab PT 3: Challenge Remote WLC Configuration

Topology



Scenario

A network administrator needs to configure a wireless network to support a Wireless LAN Controller that will be located on a remote network. This network includes two WLANs: Admin and Employee.

Objectives

- Create your own IP Addressing scheme; use at least 3 VLANs
- All DHCP will be performed by R1; all hosts (PCs and APs) must use DHCP
- A loopback on R1 needs to simulate the Internet
- Must follow the WLANs configuration below

WLANs

Admin-WLAN	Employee-WLAN
SSID: "Admin-[BOOK]"	SSID: "Employ-[BOOK]"
Security: WPA2-AES	Security: WPA-TKIP
Password: cisco123	Password: cisco123

Remote WLC Configuration

The DHCP pool that will serve IP addresses for the access points must use Option 43. On a lot of real-world equipment, Option 43 must be set in hex, however, Packet Tracer supports IP. The IP address set for Option 43 would tell the access points where the Wireless LAN Controller is located via DHCP.

The following box explains how Option 43 would be configured using a hex value. The full command for IP would be similar using an IP address instead of a hex value.

Option 43 in hex is assembled as a sequence of values Type + Length + Value.

- Recall that **0x** denotes that the following numbers / characters are a hex value as opposed to decimal or some other base number.
- Cisco's type is set as **0xF1**
- Length is calculated as number of controller management IP addresses times 4.
 - 1 IP address X 04 = **0x04**
- Value is the management IP address in hexadecimal
 - 10.50.0.5 = **0x0A320005**
- The full command would thus be ***option 43 hex f1040A320005***

Verify Connectivity

From	Protocol	To	Expected Results	Success?
Admin	ipconfig	WLAN: Admin-[BOOK]	IP address should be an address from the Student subnet	
Employee	ipconfig	WLAN: Employ-[BOOK]	IP address should be an address from the Faculty subnet	
Admin	Ping	Employee	Ping should be successful	
Admin	Ping	9.3.3.1	Ping should be successful	
Employee	Ping	9.3.3.1	Ping should be successful	