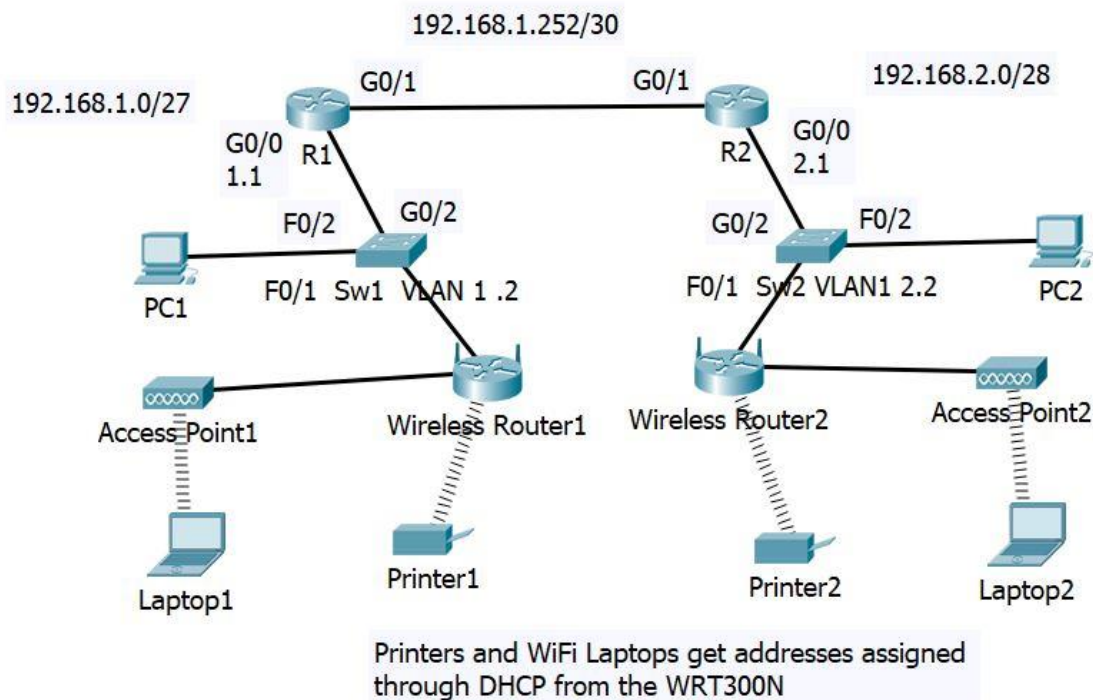


# Module F Walk-through

## Network Diagram

NOTE: The WAP is a wireless extension of the switch and NOT a wireless router. Use the Linksys WRT300N router and a "Generic AP" in Packet Tracer. The WRT300N is only used to provide a DHCP pool. It is not required to support a wireless access point.

Router/Switch/PC/WAP Configuration  
OSPF 1 Area 0



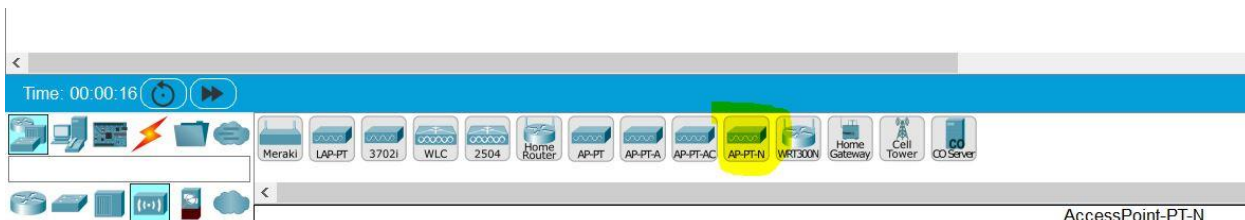
# Module F Walk-through

## Virtually Configuring the WRT300N & WAP

1. Open Packet Tracer
2. Place a wireless router WRT300N on the screen and use a **CROSS-OVER cable** to connect the Switch to the **Ethernet 01** port.
3. Click on the wireless router to configure

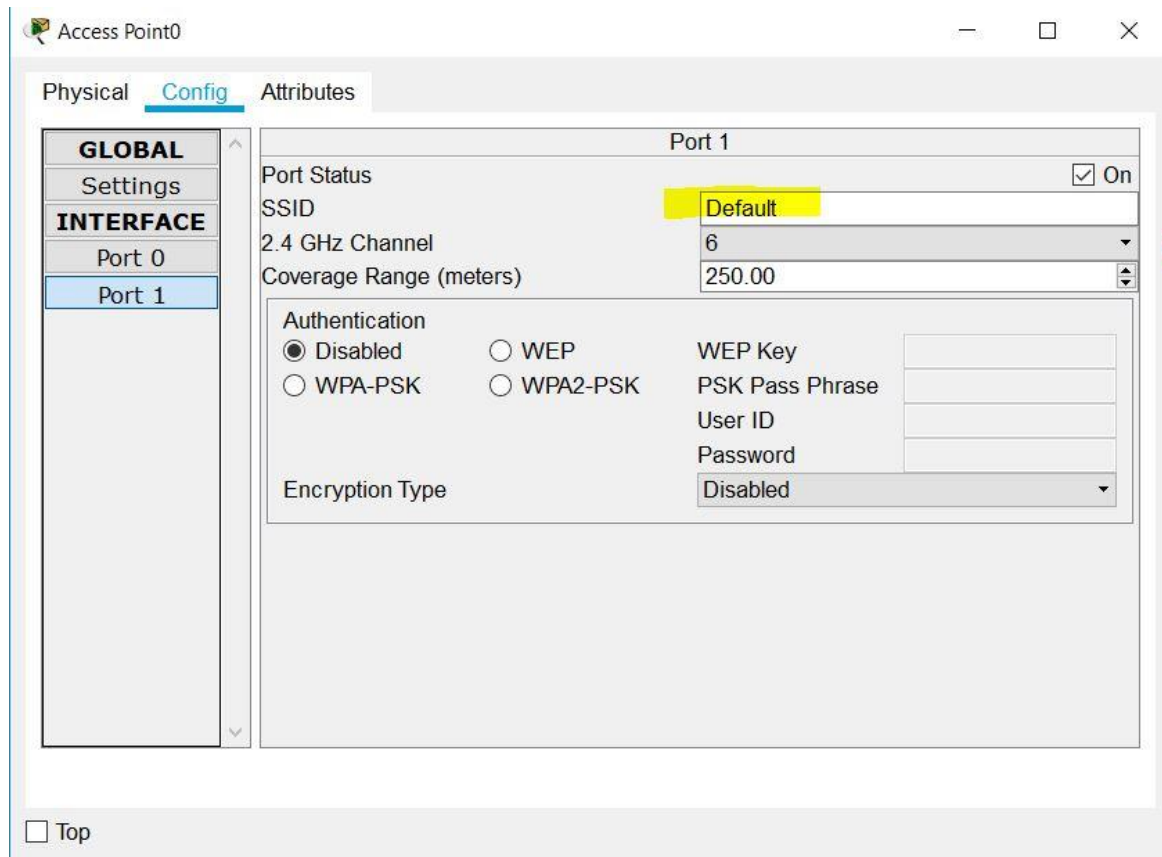
## Configure the WRT300N and WAP

1. Select the Config tab.
2. Global Settings and Algorithm Settings : Leave at default
3. Internet: Leave at default
4. LAN: 192.168.1.3 255.255.255.224 for WAP1  
192.168.2.3 255.255.255.240 for WAP2
5. WIRELESS: Enter WAP1 and WAP2 for the SSIDs respectively.
6. Go into WAP GUI and select the Setup tab.
7. DHCP Server: Enable
8. WAP 1: Start IP Address 192.168.1.4, Users (26)  
WAP 2: Start IP Address 192.168.2.4, Users (11)
9. Save the settings
10. From the Packet Tracer toolbox, place two of AccessPointPT-N on the workspace and connect a straight through cable from port0 to any Ethernet port on the WRT300N



# Module F Walk-through

11. Double click the Access- point. Select the Config tab. Select Port 1 and set the WAP SSID (WAP3, WAP4) and select a channel number different from every other AP.



## Configure the Wireless Laptop

1. Place the laptop on the screen, drag the vertical view bar to the bottom of the window to see the laptop
2. Turn the laptop power OFF
3. Remove the Ethernet module and insert Wireless interface (WPN 3000)
4. Turn the laptop power ON
5. Go to Config tab and Global Settings.
6. Select Wireless0 and input the SSID for the WAP you want to connect to.

# Module F Walk-through

Physical **Config** Desktop Programming Attributes

**GLOBAL**

- Settings
- Algorithm Settings

**INTERFACE**

- Wireless0**
- Bluetooth

**Wireless0**

Port Status ☒ On

Bandwidth 300 Mbps

MAC Address 000A.41C2.25E1

SSID WAP1

**Authentication**

☒ Disabled ☐ WEP ☐ WPA-PSK ☐ WPA2-PSK ☐ WPA ☐ WPA2 ☐ 802.1X

Method: MD5

WEP Key

PSK Pass Phrase

User ID

Password

User Name

Password

Encryption Type Disabled

**IP Configuration**

☒ DHCP ☐ Static

IP Address 192.168.1.5

Subnet Mask 255.255.255.224

**IPv6 Configuration**

☒ DHCP ☐ Auto Config ☐ Static

- The PC should automatically draw an address from the DHCP pool on the WAP, but the info CAN be entered statically. Perform the following ONLY if using static:
- Input the Static Gateway: 192.168.1.3 (WAP1)  
192.168.2.3 (WAP2)
- Statically assign the IP address and subnet mask of the wireless laptop:  
192.168.1.6 255.255.255.224 (Wireless PC1)  
192.168.2.6 255.255.255.240 (WirelessPC2)
- Ping all through the network!!!

# Module F Walk-through

## Access the Wireless Printer

1. Place the printer on the screen and turn it OFF via the PHYSICAL tab.
2. Remove the Ethernet interface and insert the Wireless interface
3. Turn the printer ON
4. Go to Config tab and Global Settings
5. Set the IP address of the Gateway to use DHCP.  
*If told to use Static, enter:    192.168.1.1 (WAP1)  
                                      192.168.2.1 (WAP2)*
6. Wireless 0 settings: Use DHCP  
*If told to use Static IP 192.168.1.4 255.255.255.224 (Connects to WAP1)  
                              192.168.2.4 255.255.255.240 (Connects to WAP2)*

The screenshot shows the 'Printer1' configuration window with the 'Config' tab selected. The left sidebar has 'GLOBAL' and 'INTERFACE' sections. Under 'INTERFACE', 'Wireless0' is selected. The main area shows 'Wireless0' settings. 'Port Status' is 'On'. 'Bandwidth' is '11 Mbps'. 'MAC Address' is '0002.4A0B.A853'. 'SSID' is 'WAP2'. Under 'Authentication', 'Disabled' is selected. Other options include WEP, WPA-PSK, WPA, WPA2, and 802.1X. The 'Method' is 'MD5'. 'Encryption Type' is 'Disabled'. Under 'IP Configuration', 'DHCP' is selected, indicated by a red checkmark. The 'IP Address' is '192.168.1.7' and the 'Subnet Mask' is '255.255.255.224', both of which are circled in red. The 'IPv6 Configuration' section shows 'DHCP' selected.

7. Ping the Printers from the laptops

# Module F Walk-through

| Command   | What it Does  |
|---|---|
| Router# show run                                      | Displays your current configuration   |
| Router# copy run start                                | Copies the current running configuration to memory (saves it!)  |
| Router# wr  | Shortcut for <b>copy run start</b>  |
| Router# show version                                  | Shows the current version of IOS, configuration registry number, uptime, MAC address, and other information |
| Router# erase startup-configuration<br>Router# reload | Wipes startup config. Allows you to start with a default configuration. Works on routers and switches       |
| Router# show ip route                                 | Shows the routing table   |
| Router# show ip interface brief                       | Shows summary of interfaces   |
| Routers# show ip ospf neighbor                        | Shows neighbors directly connected  |
| Router# ping 192.168.1.1                              | Sends a PING to that IP address   |
| exit  | Sends you back one level  |
| Keyboard  | What it Does  |
| CTRL Shift 6  | Press these keys to stop all process and return to your prompt  |
| CTRL A  | Moves cursor to beginning of command line   |
| CTRL E  | Moves cursor to end of command line   |
| CTRL Z  | Exits all configuration modes and returns to the Privileged Exec prompt.                                    |
| SPACE BAR   | Page scroll on CLI  |
| ENTER   | Line scroll on CLI  |