

CREATING A HOME WIFI NETWORK USING CISCO PACKET TRACER

Topology:

1. Home Router PT-AC Wireless Router.
2. Laptop-PT Laptop 0.
3. Laptop-PT Laptop 1.
4. Laptop-PT Laptop 2.

Objectives:

1. Connecting Laptops to the internet through the Home Router PT-AC Wireless Router.
2. Configuring basic network settings to Home Router PT-AC Wireless Router.
3. Assigning each IP Address to Laptops-PT.
4. Testing connectivity between devices.

Step by step procedures:

Part 1: Setting up Devices

1. Open *Cisco Packet Tracer 8.2.1* and create a new project.
2. Drag and drop the following devices onto the workshop:
 - Home Router PT-AC Wireless Router
 - Laptop-PT
3. Arrange devices to resemble a home network.



Part 2: Configuring Devices

1. Click on the Home Router-PT-AC Wireless Router0 and select "Config" tab.
2. Set SSID name, Check Authentication WPA-PSK and Assign PSK Pass Phase.
3. Click on the Home Router-PT-AC Wireless Router0 and select "GUI" tab.
4. Assigning start IP Address 192.168.0.50.

Wireless Router0

Physical Config GUI Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Internet

LAN

Wireless 2.4G

Wireless 5G(1)

Wireless 5G(2)

Wireless Guest 2.4G

Wireless Guest 5G(1)

Wireless Guest 5G(2)

Wireless 5G(2) Settings

SSID: orange

5 GHz Channel: Auto

Coverage Range (meters): 250.00

Authentication:

☐ Disabled ☐ WEP ☐ WPA-PSK ☐ WPA2-PSK ☐ WPA ☐ WPA2

WEP Key:

PSK Pass Phrase: apple1234

RADIUS Server Settings

IP Address:

Shared Secret:

Encryption Type: AES

Wireless Router0

Physical Config GUI Attributes

Wireless Tri-Band Home Router

Setup Setup **Wireless** Security Access Restrictions Applications & Gaming Administration

Basic Setup DDNS MAC Address Clone Advanced Router

Internet Setup

Internet Connection type: Automatic Configuration - DHCP

Optional Settings (required by some internet service providers):

Host Name:

Domain Name:

MTU: Size: 1500

Network Setup

Router IP

IP Address: 192 . 168 . 0 . 1

Subnet Mask: 255.255.255.0

DHCP Server Settings

DHCP Server: ☒ Enabled ☐ Disabled

DHCP Reservation

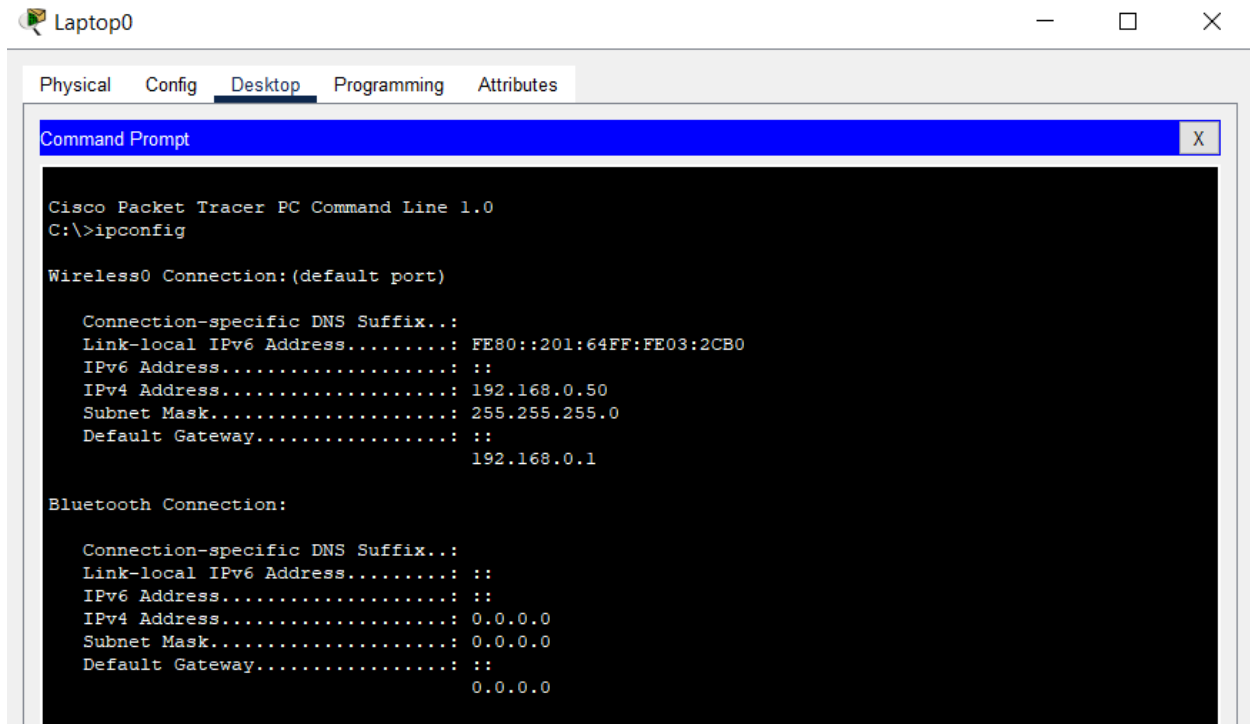
Start IP Address: 192.168.0. 50

Maximum number of Users: 50

IP Address Range: 192.168.0. 50 - 99

PC Configuration

1. Click on each laptop and select “Config” tab.
2. Set the routers IP addresses range 192.168.0.50 or your preferred IP range.
3. Set the default gateway: 192.168.1.1
4. Check if each Laptop has it's on IP Address as shown below.

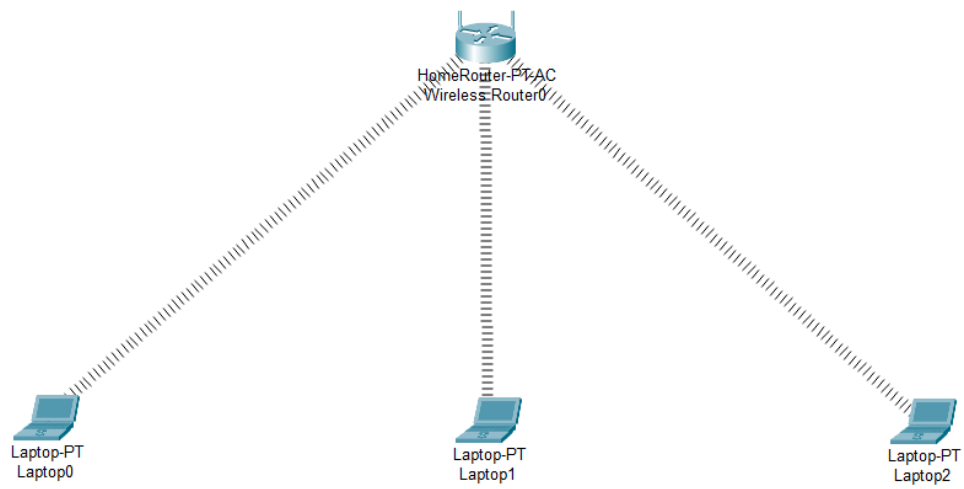


Part 3: Connecting Devices.

1. Connect Laptops to Home Router-PT-AC Wireless Router0 wirelessly.
2. Assign each Laptop with a SSID name, WPA-PSK and PSK Pass Phase: apple1234.
3. Assign each Wireless LAN based on SSID and PSK Pass Phase based on wireless bandwidth type.

Part 4: Testing Connectivity.

1. Connect Laptops to Home Router-PT-AC Wireless Router0 wirelessly.
2. Assign each Laptop with a SSID name, WPA-PSK and PSK Pass Phase: apple1234.
3. Check if each Laptop is connected wirelessly as shown in the figure below.



4. Save the file as Home WiFi Network.pkt file.
5. Export your configurations files for future reference.