IFT 266 Introduction to Network Information Communication Technology (ICT)
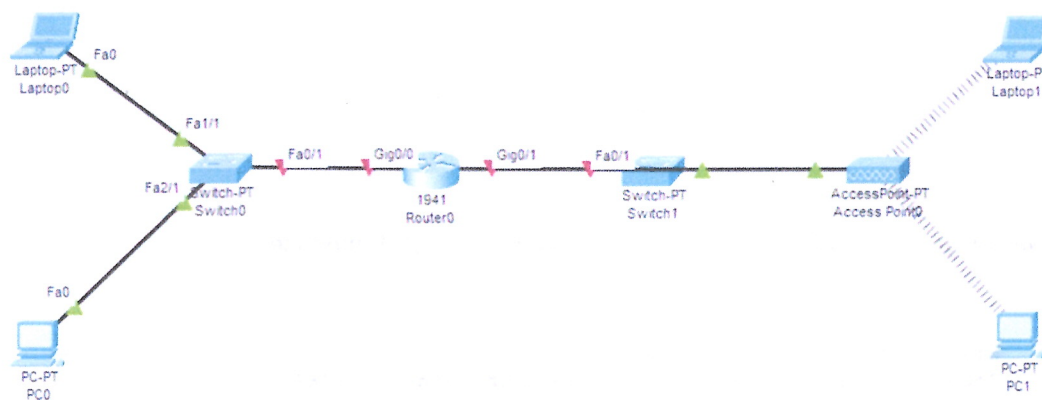
Lab 27

IPv6 Autoconfiguration (Wired + Wireless Networks)

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This lab practices setup of a wired and wireless networks on separate subnets with IPv6 autoconfiguration.

1. Setup the following topology in Packet Tracer

Completed ☒

2. For the computers in the wireless network to connect, we must first swap out the network cards in PC1 and Laptop1. PC1 will use a WMP300N and Laptop1 will use a WPC300N.

Completed ☒

3. Next, we assign subnet 2001:db8:abcd:a::1/64 to the router g0/0 interface.

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ipv6 unicast-routing
Router(config)#int g0/0
Router(config-if)#ipv6 address 2001:db8:abcd:a::1/64
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up
```

Completed

4. Next, we assign subnet 2001:db8:abcd:b::1/64 to the router g0/1 interface.

```
Router(config-if)#int g0/1
Router(config-if)#ipv6 address 2001:db8:abcd:b::1/64
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1,
changed state to up
```

Completed

5. Set up WAP2-PSK Authentication on the Access Point. Create SSID name and PSK Pass Phrase. Wireless connection indicators to PC1 and Laptop1 will now be gone from the topology.

Completed ⊠

6. Select WAP2-PSK Authentication and enter Pass Phrase and SSID in PC1 and Laptop1.

Completed ⊠

7. Go to the Desktop and configure IPv6 Configuration as Automatic for all four host computers.

Completed ☒

8. Ping PC1 from Laptop0 using the assigned IPv6 address. If unsuccessful, then troubleshoot.

Insert screenshot of successful ping