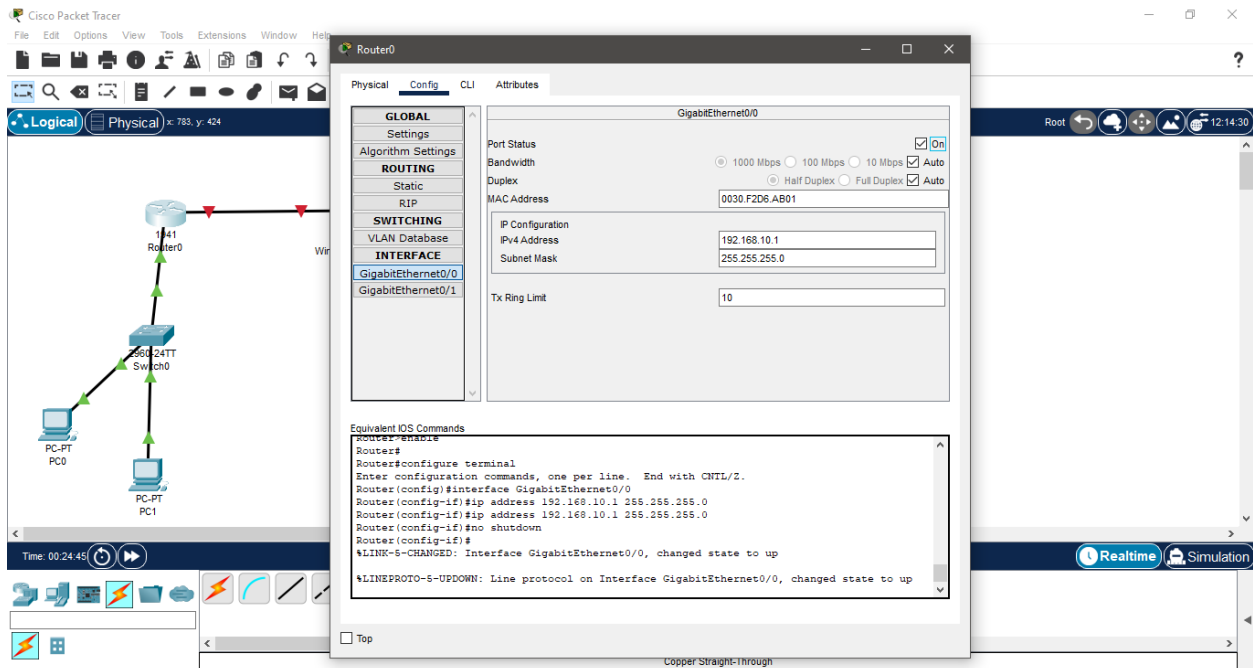
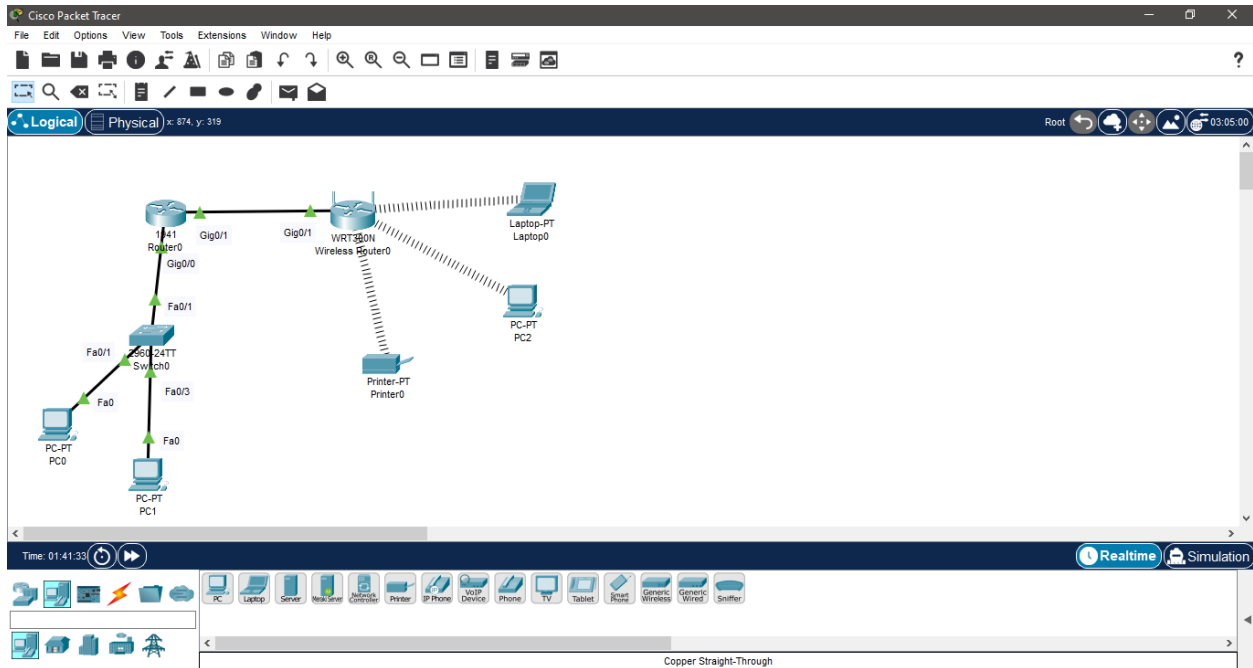


## Practical 8

### IT1201 – Computer Networks

H.N.D.Vitharana – 20IT0515



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 610, y: 423

Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/1

Port Status ☒ On

Bandwidth ☐ 1000 Mbps ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0030.F2D6.AB02

IP Configuration

IPv4 Address 192.168.20.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config-if)#shutdown
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
```

Time: 00:26:57

Realtime Simulation

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 603, y: 424

PC0

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000B.BECC.29B6

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.10.2

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address: FE80::20B:BEFF:FECC:29B6

Time: 00:30:35

Realtime Simulation

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 753, y: 373

Time: 00:31:35

PC1

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0090.2B1D.B27C

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.10.3

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::290:2BFF:FE1D:B27C

Realtime Simulation

15:41:00

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 781, y: 217

Time: 00:34:03

PC2

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0060.3EC5.6BB5

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.20.3

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::260:3EFF:FEC5:6BB5

Realtime Simulation

16:58:30

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 707, y: 82

Time: 00:50:32

Printer0

Physical Config Attributes

GLOBAL Settings INTERFACE FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☒ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address 0040.0B0E.25E9

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.20.4

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::240:BFF:FEDE:25E9

Realtime Simulation

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 704, y: 4

Time: 00:52:10

Laptop0

Physical Config Desktop Programming Attributes

GLOBAL Settings Algorithm Settings INTERFACE FastEthernet0 Bluetooth

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☒ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address 00E0.F724.B0E6

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.20.5

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::2E0:F7FF:FE24:B0E6

Realtime Simulation

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 725, y: 129

Time: 00:57:33

PC0

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Global Settings

Display Name PC0

Interfaces FastEthernet0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.10.1

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

Top

Copper Straight-Through

Root 04:49:00

Realtime Simulation

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 317, y: 240

Time: 00:58:34

PC1

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Global Settings

Display Name PC1

Interfaces FastEthernet0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.10.1

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

Top

Copper Straight-Through

Root 05:20:00

Realtime Simulation

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 549, y: 178

Time: 01:00:01

Root 06:04:00

Realtime Simulation

PC2

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Global Settings

Display Name PC2

Interfaces FastEthernet0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.20.1

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

Top

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1000, y: 417

Time: 01:02:10

Root 07:09:30

Realtime Simulation

Printer0

Physical Config Attributes

GLOBAL

Settings

INTERFACE

FastEthernet0

Global Settings

Display Name Printer0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.20.1

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

Top

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1098, y: 119

Time: 01:03:16

Root 07:43:30

Realtime Simulation

Copper Straight-Through

**Laptop0**

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Global Settings

Display Name: Laptop0

Interfaces: FastEthernet0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway: 192.168.20.1

DNS Server:

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway:

DNS Server:

Top

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 383, y: 99

Time: 01:06:32

Root 09:22:00

Simulation

Copper Straight-Through

**Wireless Router0**

Physical Config GUI Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Internet

LAN

Wireless

LAN Settings

IP Configuration

IPv4 Address: 192.168.20.2

Subnet Mask: 255.255.255.0

Top

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 541, y: 37

1041 Router0

2504 24TT Switch0

PC-PT PC0

PC-PT PC1

Time: 01:08:53

Wireless Router0

Physical Config GUI Attributes

GLOBAL Settings Algorithm Settings INTERFACE Internet LAN Wireless

Internet Settings

IP Configuration

☐ DHCP

☒ Static

☐ PPPoE

Username

Password

IPv4 Address

Subnet Mask

Default Gateway

DNS Server

192.168.20.1

Simulation

10:33:30

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 493, y: 378

1041 Router0

2504 24TT Switch0

PC-PT PC0

PC-PT PC1

Time: 01:10:46

Wireless Router0

Physical Config GUI Attributes

GLOBAL Settings Algorithm Settings INTERFACE Internet LAN Wireless

Wireless Settings

SSID

2.4 GHz Channel

Coverage Range (meters)

Authentication

☐ Disabled

☒ WEP

☐ WPA-PSK

☐ WPA2-PSK

☐ WPA

☐ WPA2

WEP Key

1234567890

PSK Pass Phrase

RADIUS Server Settings

IP Address

Shared Secret

Encryption Type

40/64-Bits (10 Hex digits)

Simulation

11:30:00



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 592, y: 70

Router0 (1941) Wireless Router0 (WRT300N) Switch0 (2960-24TT) PC-PT PC0 PC-PT PC1 Printer-PT Printer0 Laptop-PT Laptop0 PC-PT PC2

Time: 01:12:20

Laptop0

Physical Config Desktop Programming Attributes

MODULES

- WPC300N
- PT-LAPTOP-NM-1AM
- PT-LAPTOP-NM-1CE
- PT-LAPTOP-NM-1CFE
- PT-LAPTOP-NM-1CGE
- PT-LAPTOP-NM-1FFE
- PT-LAPTOP-NM-1FGE
- PT-LAPTOP-NM-1W
- PT-LAPTOP-NM-1W-A
- PT-LAPTOP-NM-1W-AC
- PT-LAPTOP-NM-3G/4G
- PT-HEADPHONE
- PT-MICROPHONE

Physical Device View

Zoom In Original Size Zoom Out

Customize Icon in Physical View Customize Icon in Logical View

The Linksys-WPC300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.

☐ Top

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 830, y: 10

Router0 (1941) Wireless Router0 (WRT300N) Switch0 (2960-24TT) PC-PT PC0 PC-PT PC1 Printer-PT Printer0 Laptop-PT Laptop0 PC-PT PC2

Time: 01:15:30

Laptop0

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

- Wireless0
- Bluetooth

Global Settings

Display Name: Laptop0

Interfaces: Wireless0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway: 192.168.20.1

DNS Server:

Gateway/DNS IPv6

☐ Automatic

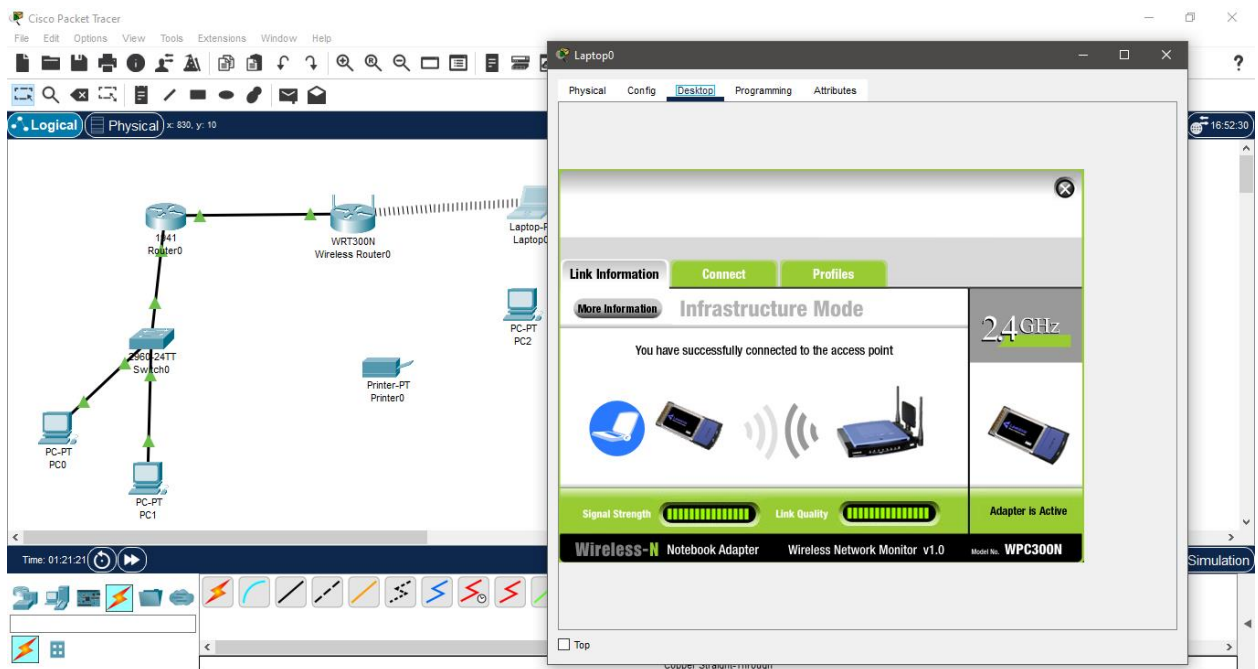
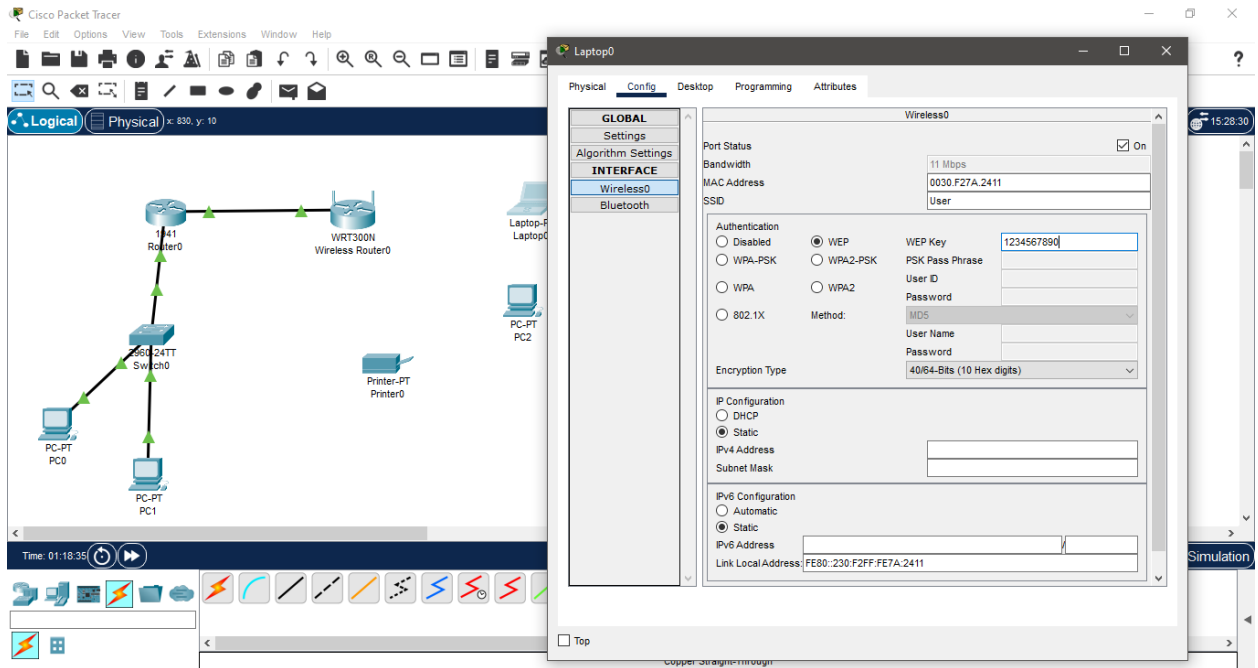
☒ Static

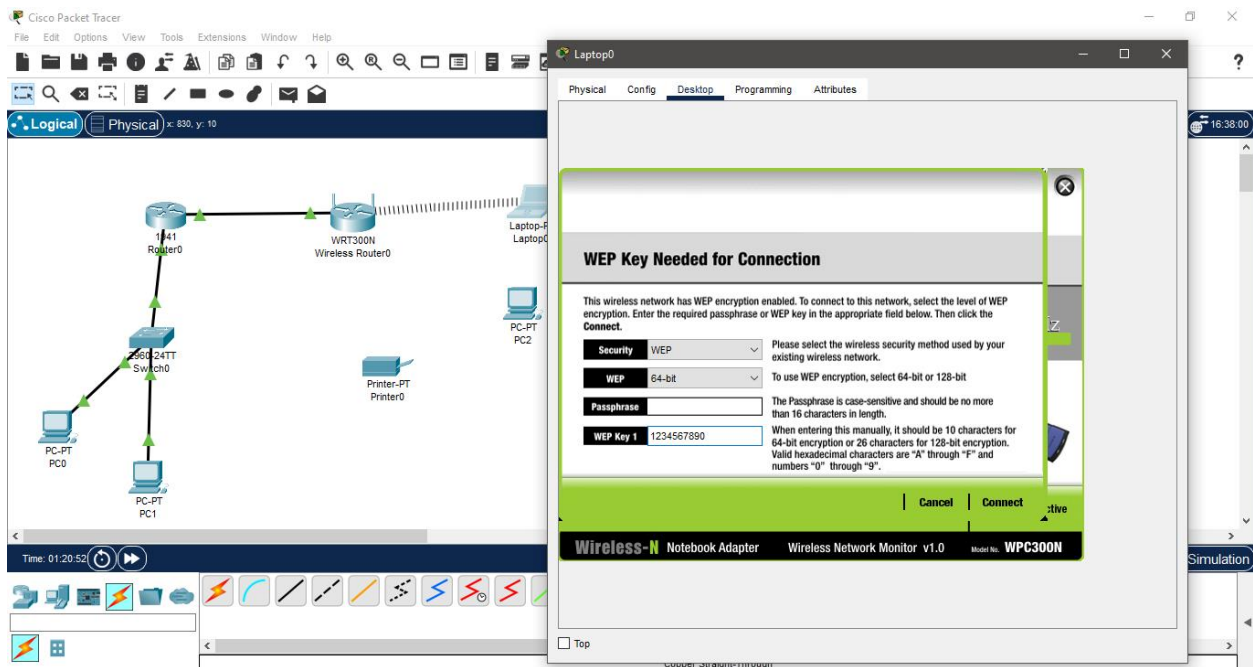
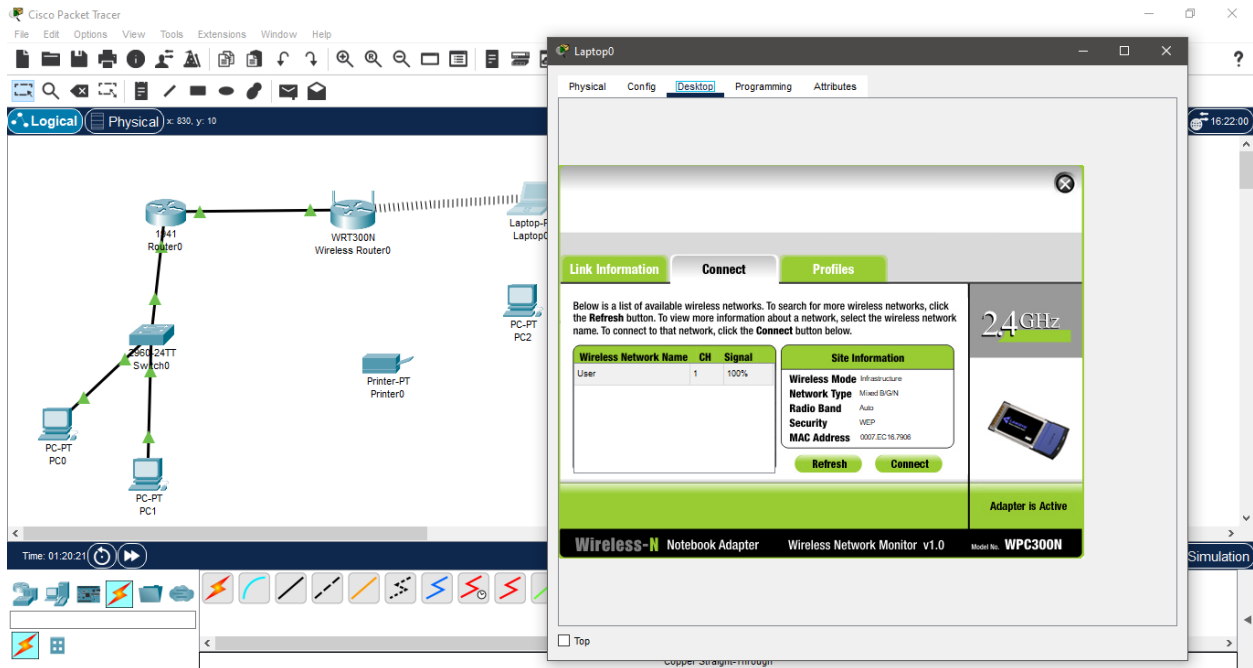
Default Gateway:

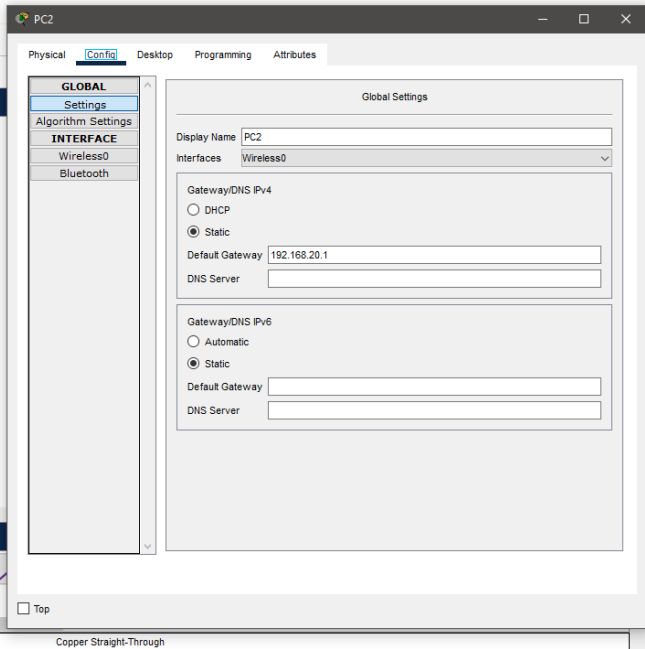
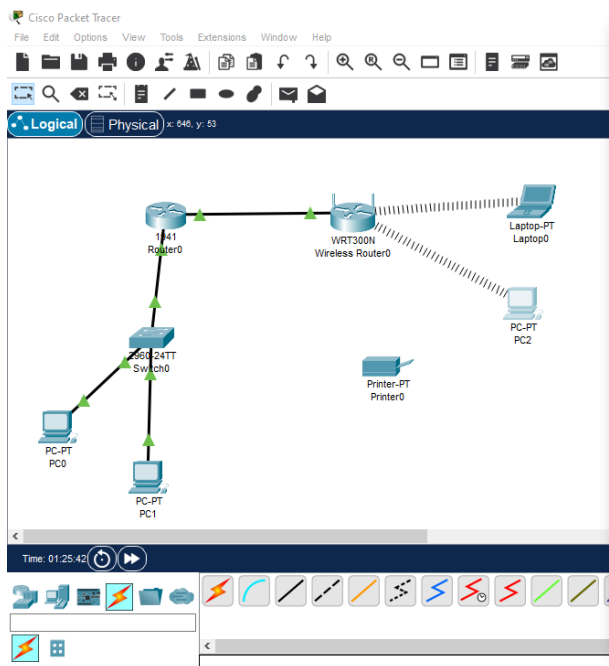
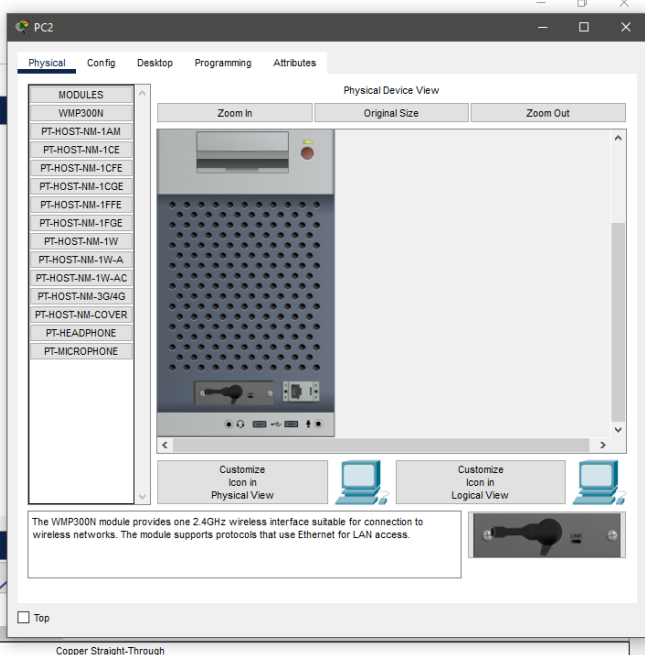
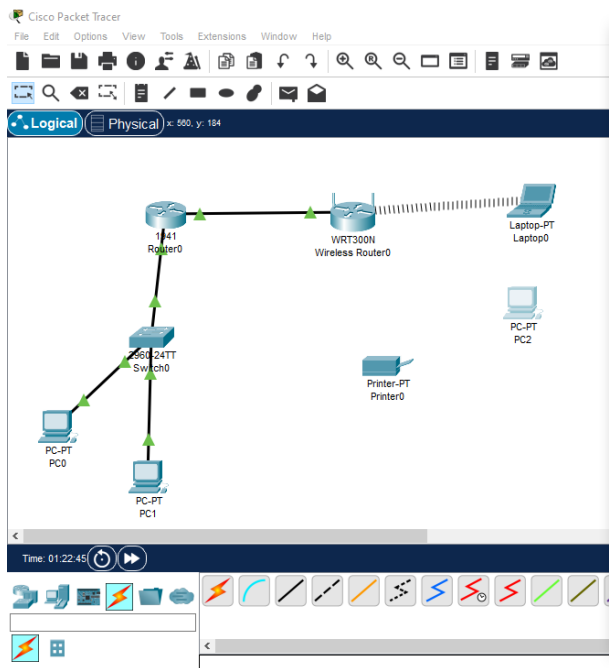
DNS Server:

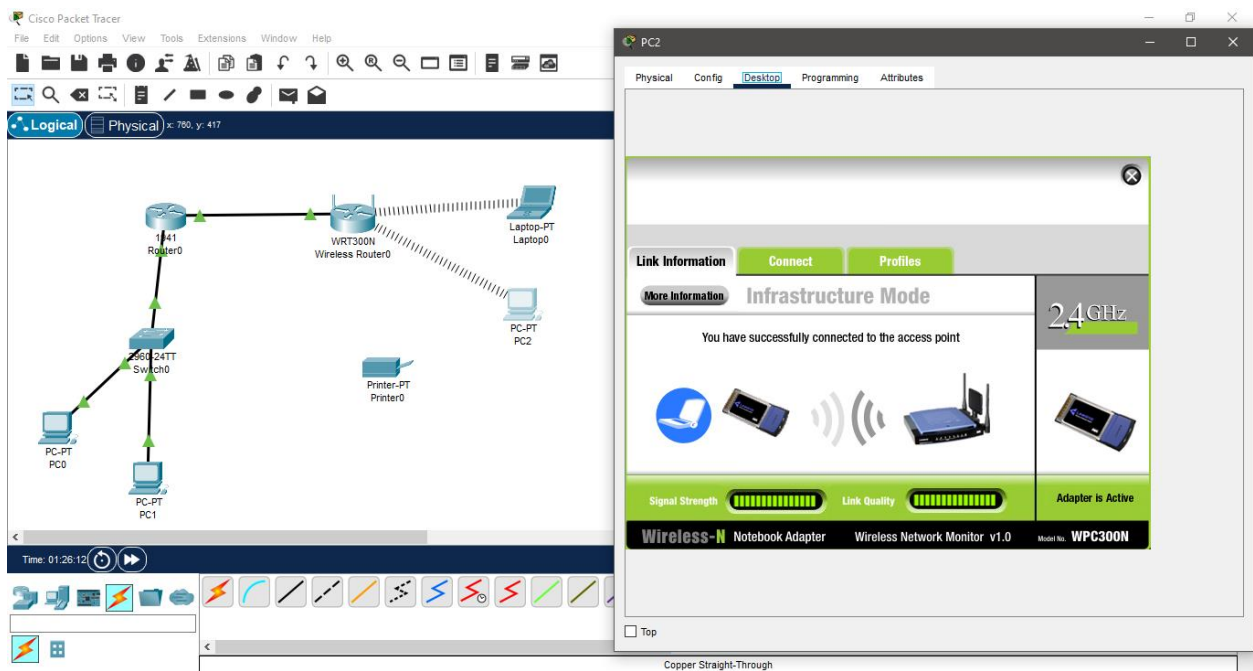
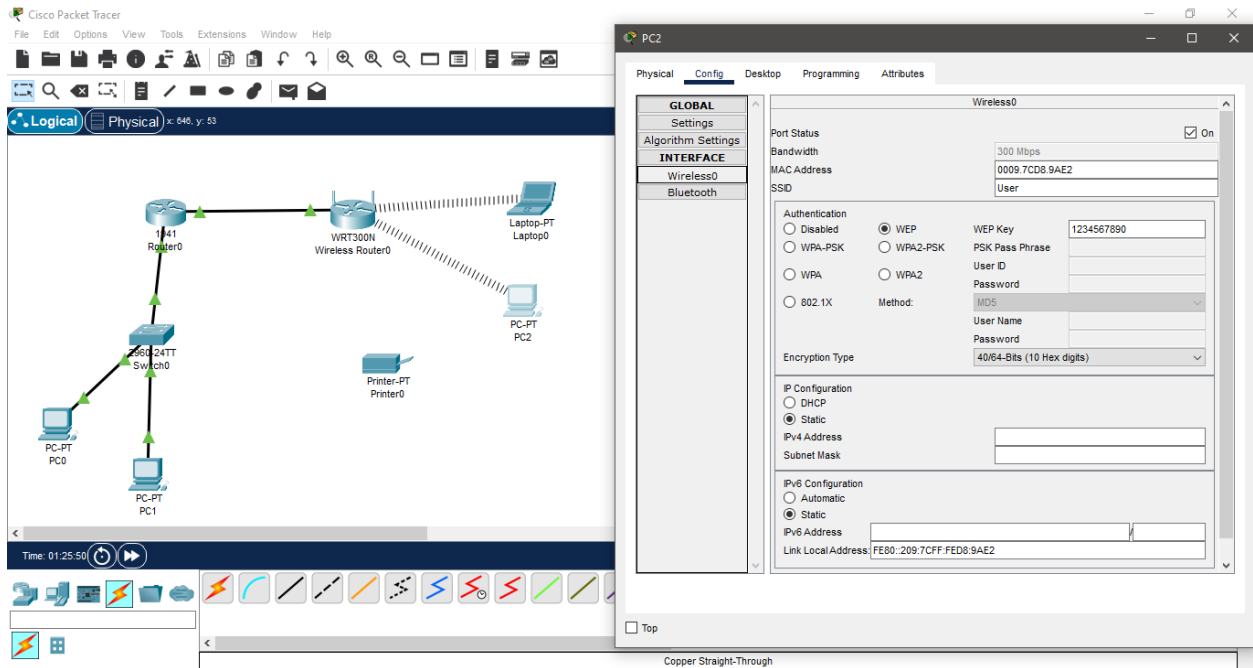
☐ Top

Copper Straight-Through









Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 700, y: 417

Time: 01:26:22

PC2

Physical Config Desktop Programming Attributes

Link Information Connect Profiles

Below is a list of available wireless networks. To search for more wireless networks, click the Refresh button. To view more information about a network, select the wireless network name. To connect to that network, click the Connect button below.

Wireless Network Name	CH	Signal
User	1	100%

Site Information

Wireless Mode Infrastructure  
Network Type Mixed B/G/N  
Radio Band Auto  
Security WEP  
MAC Address 0007.EC.16.7968

Refresh Connect

2.4GHz

Adapter is Active

Wireless-N Notebook Adapter Wireless Network Monitor v1.0 Model No. WPC300N

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 700, y: 417

Time: 01:26:37

PC2

Physical Config Desktop Programming Attributes

WEP Key Needed for Connection

This wireless network has WEP encryption enabled. To connect to this network, select the level of WEP encryption. Enter the required passphrase or WEP key in the appropriate field below. Then click the Connect button.

Security WEP Please select the wireless security method used by your existing wireless network.

WEP 64-bit To use WEP encryption, select 64-bit or 128-bit

Passphrase The Passphrase is case-sensitive and should be no more than 16 characters in length.

WEP Key 1 1234567890 When entering this manually, it should be 10 characters for 64-bit encryption or 26 characters for 128-bit encryption. Valid hexadecimal characters are "A" through "F" and numbers "0" through "9".

Cancel Connect

Wireless-N Notebook Adapter Wireless Network Monitor v1.0 Model No. WPC300N

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 410, y: 243

1941 Router0 WRT300N Wireless Router0

2601-24TT Switch0

PC-PT PC0 PC-PT PC1

Printer-PT Printer0

Time: 01:27:15

Printer0

Physical Config Attributes

MODULES

- WMP300N
- PT-HOST-NM-1CCE
- PT-HOST-NM-1CFE
- PT-HOST-NM-1CGE
- PT-HOST-NM-1FFE
- PT-HOST-NM-1FGE
- PT-HOST-NM-1W
- PT-HOST-NM-1W-A
- PT-HOST-NM-1W-AC
- PT-HOST-NM-3G/4G
- PT-HOST-NM-COVER

Physical Device View

Zoom In Original Size Zoom Out

Customize icon in Physical View Customize icon in Logical View

The WMP300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.

Top

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 410, y: 243

1941 Router0 WRT300N Wireless Router0

2601-24TT Switch0

PC-PT PC0 PC-PT PC1

Printer-PT Printer0

Time: 01:28:19

Printer0

Physical Config Attributes

GLOBAL

Settings

INTERFACE

Wireless0

Global Settings

Display Name Printer0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.20.1

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

Top

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 410, y: 243

Time: 01:28:42

Printer0

Physical Config Attributes

GLOBAL

Settings

INTERFACE

Wireless0

Port Status ☒ On

Bandwidth 11 Mbps

MAC Address 0040.0B59.636B

SSID User

Authentication

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

Method: MD5

WEP Key 1234567890

PSK Pass Phrase

User ID

Password

User Name

Password

Encryption Type 40/64-Bits (10 Hex digits)

IP Configuration

☐ DHCP ☒ Static

IPv4 Address

Subnet Mask

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address: FE80::240:BFF:FE59:636B

☐ Top

Copper Straight-Through