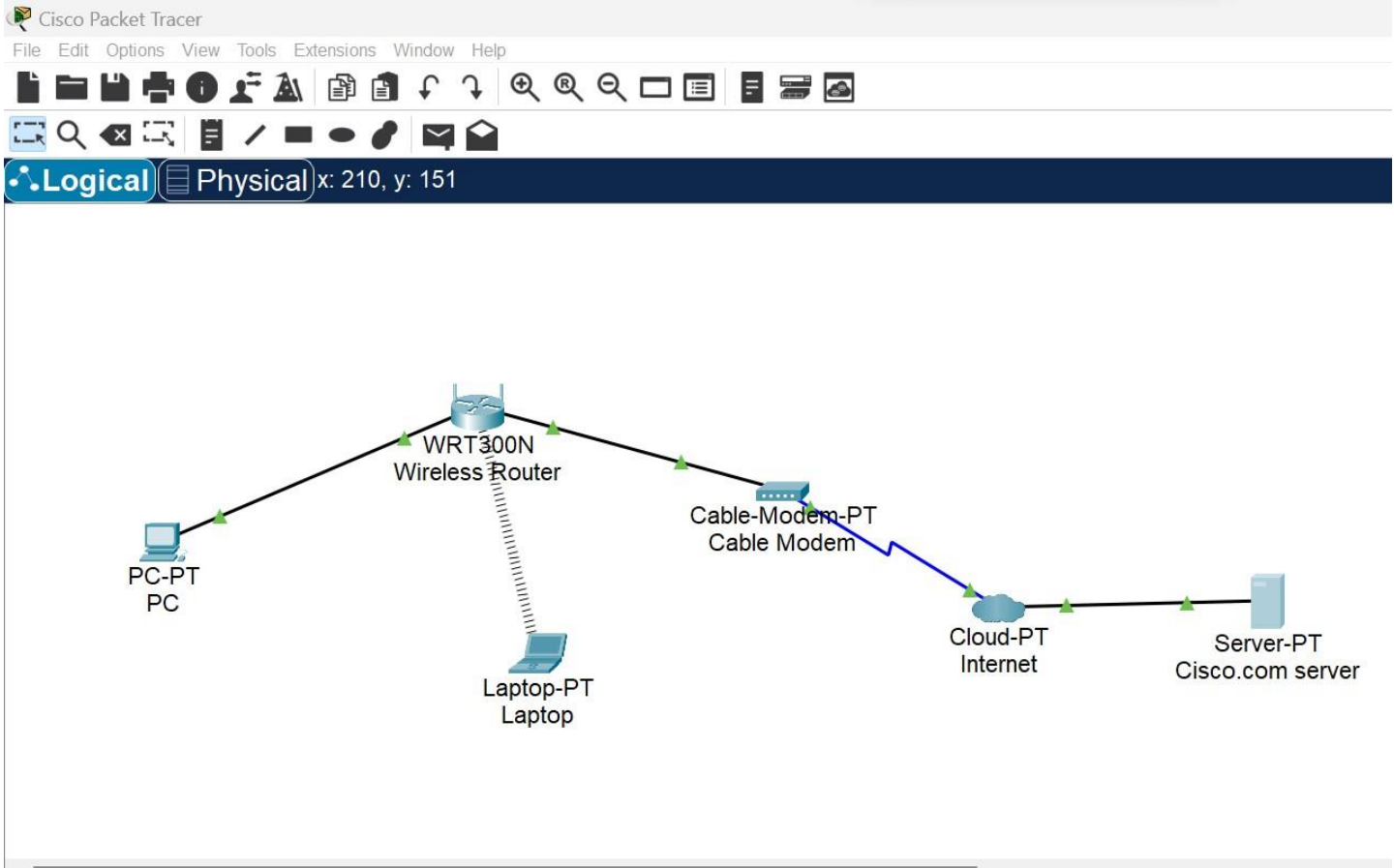


TASK 1: Create a Simple network using Packet Tracer

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1. First we placed all the network devices on logical workspace



2. First we configured the wireless settings of the router. In this we changed the name of SSID to "HomeNetwork".

Wireless-N Broadband Router Firmware Version: v0.93.3

Wireless	Setup	Wireless	Security	Access Restrictions	Applications & Gaming	Administration	Status
	Basic Wireless Settings		Wireless Security	Guest Network	Wireless MAC Filter	Advanced Wireless Settings	

Basic Wireless Settings

Network Mode:

Mixed

Network Name (SSID):

HomeNetwork

Radio Band:

Auto

Wide Channel:

Auto

Standard Channel:

1 - 2.412GHz

SSID Broadcast:

☒ Enabled ☐ Disabled

Help...

3. Next we changed the DHCP server settings and configured the static IP address of the DNS server as 208.67.220.220.

Physical Config GUI Attributes

Basic Setup DDNS MAC Address Clone Advanced Routing

Internet Setup

Internet Connection typeAutomatic Configuration - DHCP

Optional Settings (required by some internet service providers)Host Name:Domain Name:MTU:Size: 1500

Network Setup

Router IPIP Address:192.168.0.1Subnet Mask:255.255.255.0

DHCP Server SettingsDHCP Server:EnabledDisabledDHCP ReservationStart IP Address:192.168.0.100Maximum number of Users:50IP Address Range:192.168.0.100 - 149Client Lease Time:0minutes (0 means one day)Static DNS 1:208.67.220.220Static DNS 2:0.0.0.0Static DNS 3:0.0.0.0WINS:0.0.0.0

Help...

4. Then we changed the ethernet module on laptop with WIFI module and connected it with the HomeNetwork.

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
HomeNetwork	1	100

Site InformationWireless ModeInfrastructureNetwork TypeMixed B/G/NRadio BandAutoSecurityDisableMAC Address00E0.F97D.5806RefreshConnect

2.4GHz

Adapter is Active

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

5. Configuring the PC to DHCP network so that the PC will use DHCP to receive an IPv4 address from the wireless router.

IP Configuration

Interface

FastEthernet0

IP Configuration

☒ DHCP

☐ Static

IPv4 Address

192.168.0.101

Subnet Mask

255.255.255.0

Default Gateway

192.168.0.1

DNS Server

208.67.220.220

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::202:4AFF:FE6A:493A

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

- Verifying that the PC has received an IPv4 address by issuing the “ipconfig /all” command from the command prompt.

```
Cisco Packet Tracer SERVER Command Line 1.0
C:\>ipconfig /all

FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix...: 
    Physical Address.....: 00D0.BCA2.C162
    Link-local IPv6 Address.....: FE80::2D0:BCFF:FEA2:C162
    IPv6 Address.....: ::
    IPv4 Address.....: 208.67.220.220
    Subnet Mask.....: 255.255.255.0
    Default Gateway.....: ::
                                208.67.220.1
    DHCP Servers.....: 0.0.0.0
    DHCPv6 IAID.....: 
    DHCPv6 Client DUID.....: 00-01-00-01-AE-E6-80-D1-00-D0-BC-A2-C1-62
    DNS Servers.....: ::
                              208.67.220.220

C:\>
```

7. Configuring the Internet Cloud. In this we identify the to and from port.

Physical Config Attributes

GLOBAL

Settings

TV Settings

CONNECTIONS

Frame Relay

DSL

Cable

INTERFACE

Serial0

Serial1

Serial2

Serial3

Modem4

Modem5

Ethernet6

Coaxial7

FastEthernet8

Coaxial9

Cable

Coaxial7

<->

Ethernet6

Port

From Port	To Port
Coaxial7	Ethernet6

Add

Remove

8. Making the ethernet as the provider.

Physical Config Attributes

GLOBAL

Settings

TV Settings

CONNECTIONS

Frame Relay

DSL

Cable

INTERFACE

Serial0

Serial1

Serial2

Serial3

Modem4

Modem5

Ethernet6

Coaxial7

FastEthernet8

Coaxial9

Ethernet6

Provider Network

☒ Cable

☐ DSL

9. Configuring the Cisco.com server. In this we change the DHCP settings.

Physical Config **Services** Desktop Programming Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

InterfaceFastEthernet0Service ☒ On ☐ Off

Pool NameserverPool

Default Gateway0.0.0.0

DNS Server0.0.0.0

Start IP Address :208672200

Subnet Mask:2552552550

Maximum Number of Users :255

TFTP Server:0.0.0.0

WLC Address:0.0.0.0

Add

Save

Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
DHCPpool	208.67.220.220	208.67.220.220	208.67.220.1	255.255.255.0	50	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	208.67.220.0	255.255.255.0	255	0.0.0.0	0.0.0.0

10. In this we change the DNS settings.

Physical Config **Services** Desktop Programming Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DNS

DNS Service☒ On ☐ Off

Resource Records

NameType A Record

Address

Add

Save

Remove

No.	Name	Type	Detail
0	cisco.com	A Record	208.67.220.220

11. Configuring the Cisco.com server so it receives the data via fastethernet0 port.

Physical

Config

Services

Desktop

Programming

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

FastEthernet0

Port Status

Bandwidth

Duplex

MAC Address

IP Configuration

IPv4 Address

Subnet Mask

IPv6 Configuration

IPv6 Address

Link Local Address:

☒ On

☐ 100 Mbps ☐ 10 Mbps ☒ Auto

☐ Half Duplex ☒ Full Duplex ☒ Auto

00D0.BCA2.C162

☐ DHCP

☒ Static

208.67.220.220

255.255.255.0

☐ Automatic

☒ Static

FE80::2D0:BCFF:FEA2:C162

12. Verifying the connections by refreshing PC IPV4 and in output we see thee IP address of the PC to be “192.168.0.101”. Moreover when we ping Cisco server we receive the first reply after 36ms and subsequent replies after 2ms and a total of 4 replies.

Physical

Config

Desktop

Programming

Attributes

Command Prompt

IPV6 Address.....: ::
IPV4 Address.....: 192.168.0.101
Subnet Mask.....: 255.255.255.0
Default Gateway.....: ::
DHCP Servers.....: 192.168.0.1
DHCPv6 IAD.....: ::
DHCPv6 Client DUID.....: 00-01-00-01-85-02-EA-BB-00-02-4A-6A-49-3A
DNS Servers.....: 208.67.220.220

Bluetooth Connection:
Connection-specific DNS Suffix...:
Physical Address.....: 00D0.587B.B223
Link-local IPv6 Address.....: ::

C:\>ipconfig /release

IP Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: 0.0.0.0
DNS Server.....: 0.0.0.0

C:\>ipconfig /renew

IP Address.....: 192.168.0.101
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 192.168.0.1
DNS Server.....: 208.67.220.220

C:\>ping Cisco.com

Pinging 208.67.220.220 with 32 bytes of data:

Reply from 208.67.220.220: bytes=32 time=36ms TTL=127
Reply from 208.67.220.220: bytes=32 time=2ms TTL=127
Reply from 208.67.220.220: bytes=32 time=2ms TTL=127
Reply from 208.67.220.220: bytes=32 time=1ms TTL=127

Ping statistics for 208.67.220.220:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 1ms, Maximum = 36ms, Average = 10ms

C:\>