

Lab Exam: Final!

_____786

Name: Muhammad Sherjeel Akhtar

Roll No: 20p-0101

Subject: Computer Networks Lab

Submitted To Respected

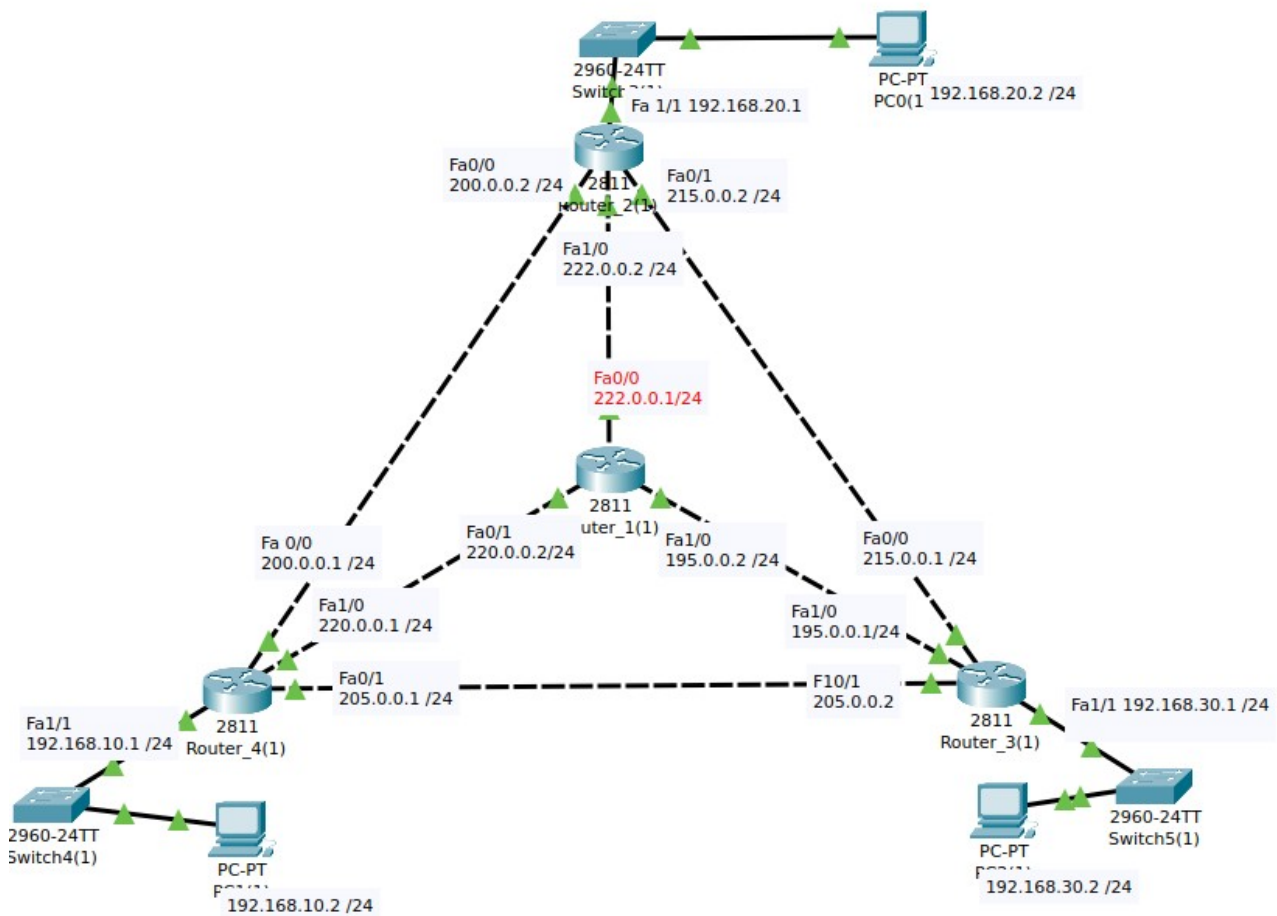
Ma'am: Hurmat Hidayat

Section: BCS-5B

Question: 1

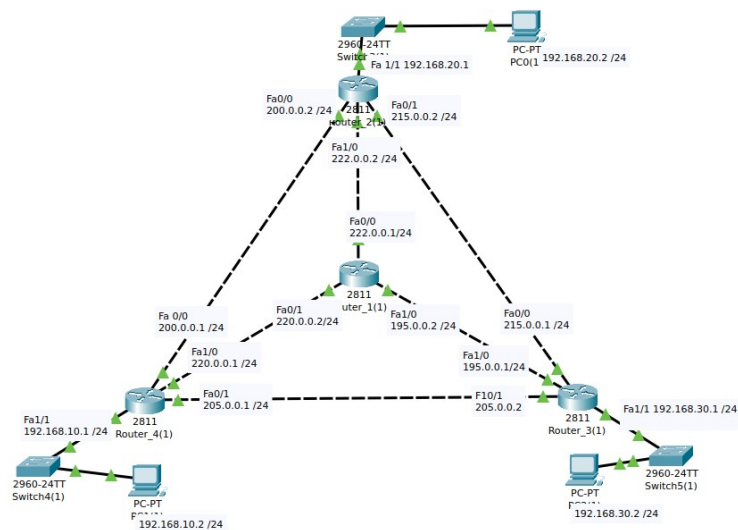
Answer:

Given Topology:

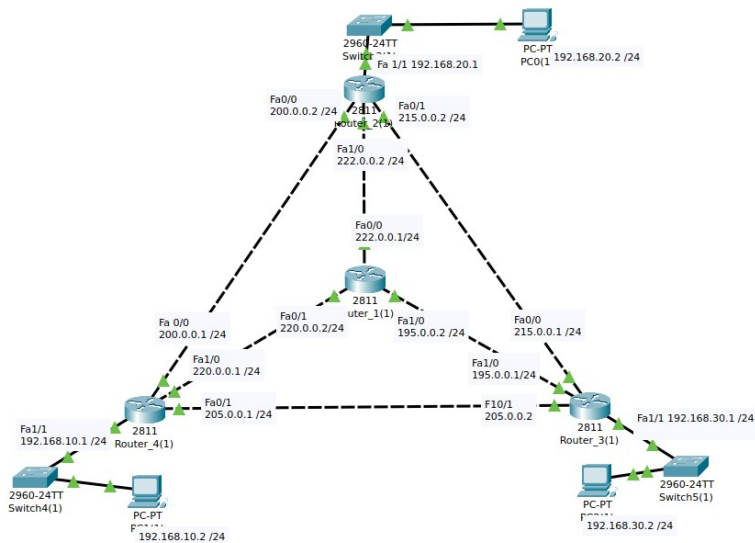


We've given above topology for our network.

Connection Testing Between PC's And Routers:

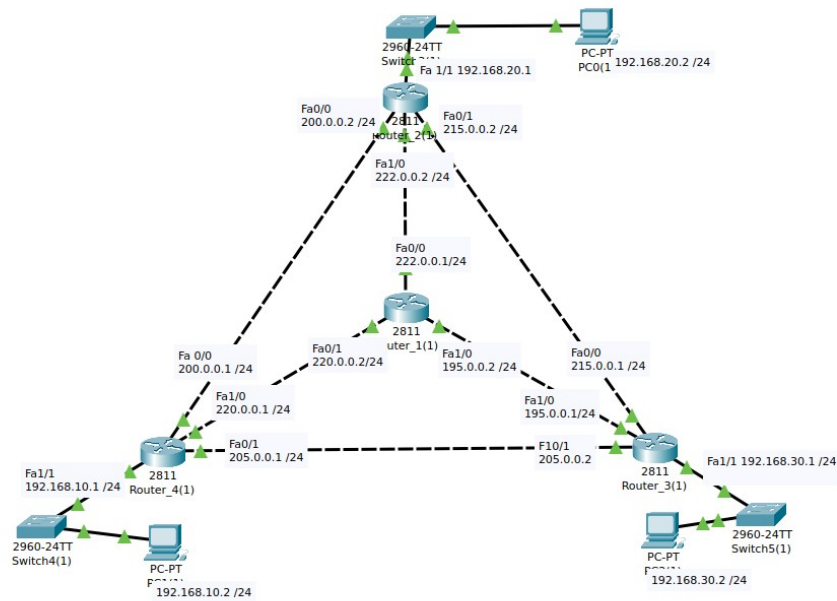


Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC1(1)	Router_4(1)	IC...			0.000	N	0	(e...	(delete)



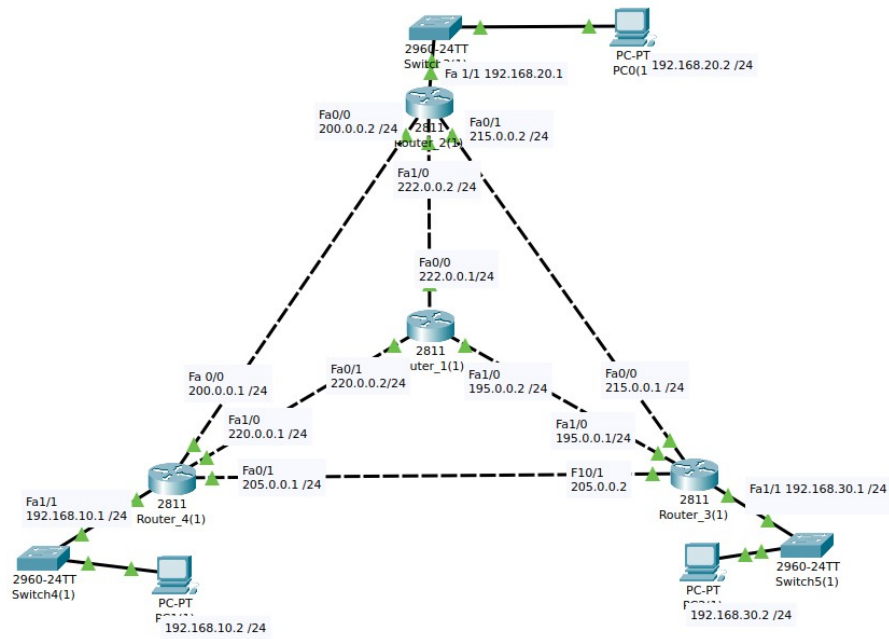
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC1(1)	Router_4(1)	IC...			0.000	N	0	(e...	(delete)
Successful	PC2(1)	Router_3(1)	IC...			0.000	N	1	(e...	(delete)

1041

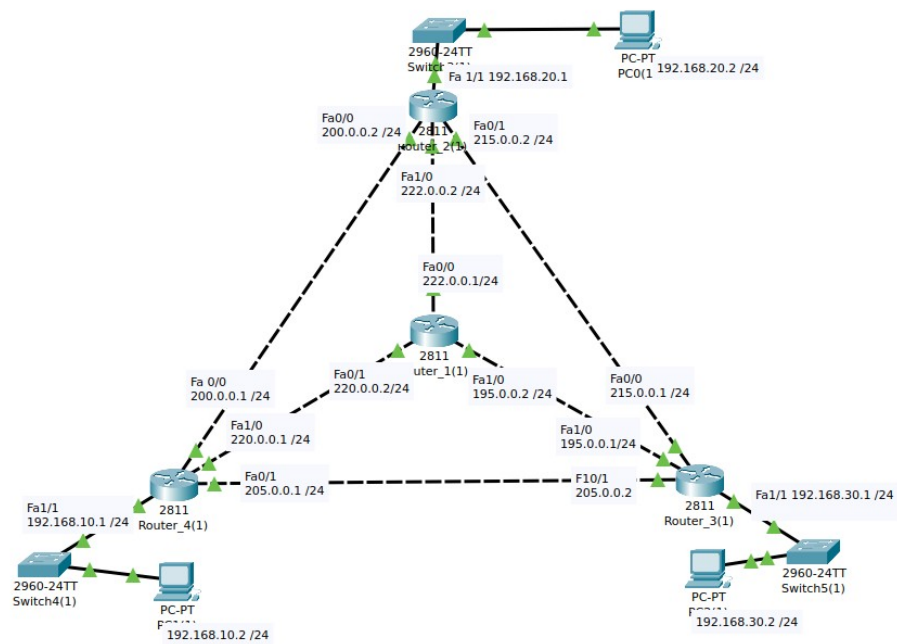


Scenario 0									
New Delete									
Toggle PDU List Window									
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit Delete
	Successful	PC1(1)	Router_4(1)	IC...		0.000	N	0	(e...
	Successful	PC2(1)	Router_3(1)	IC...		0.000	N	1	(e...
	Successful	PC0(1)	Router_2(1)	IC...		0.000	N	2	(e...

Connection Testing Between Routers:



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		Rout...	Router_1(1)	IC...		0.000	N	0	(e...	



2911

8191OX

819HGW

829

1240

PT-Router

PT-Empty

1841

2602

Scenario 0

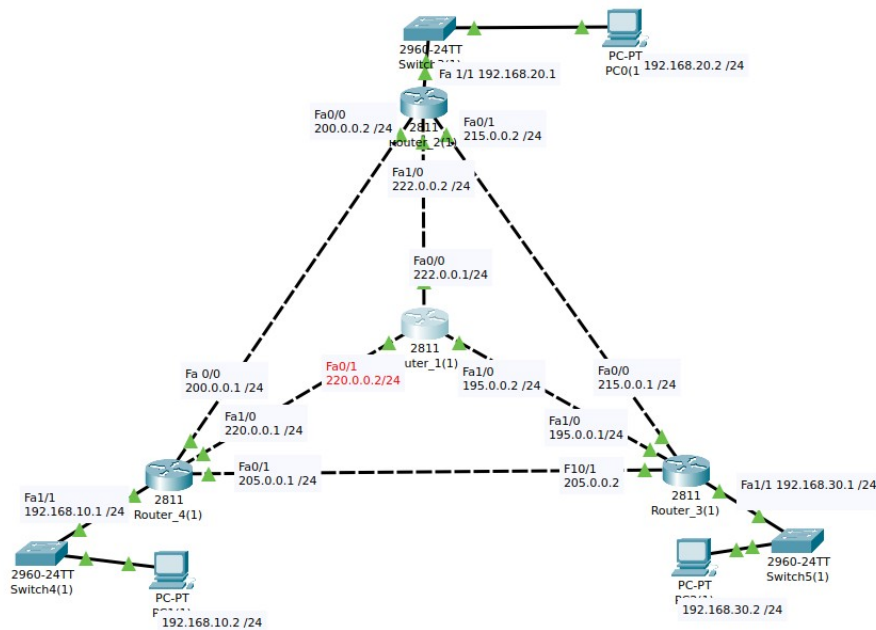
New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Rout...	Router_1(1)	IC...		0.000	N	0	(e...	

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Rout...	Router_1(1)	IC...		0.000	N	0	(e...	



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Router...	Router_1(1)	IC...		0.000	N	0	(e...	

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Router...	Router_1(1)	IC...		0.000	N	0	(e...	

Successful Connection Testing between Routers.

Testing Router 1 Connection Again with the central Router.

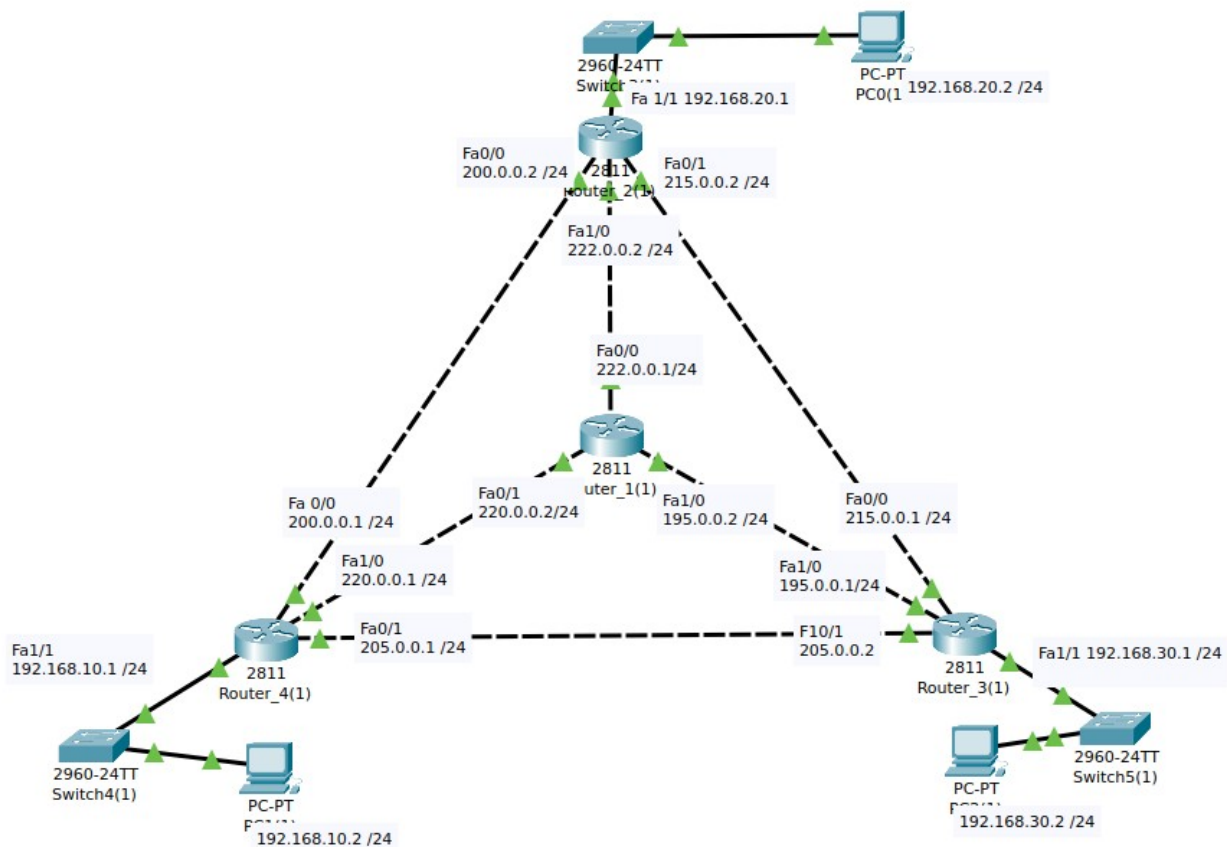
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Router...	Router_1(1)	IC...		0.000	N	0	(e...	

All The Router Configurations are Working.

Next Step:

Now, we will check if we can transfer data from **One Network To The Other**. For this purpose, we will send a packet between the PC's of the different Networks.

Testing b/w Router 4 and Router 2:

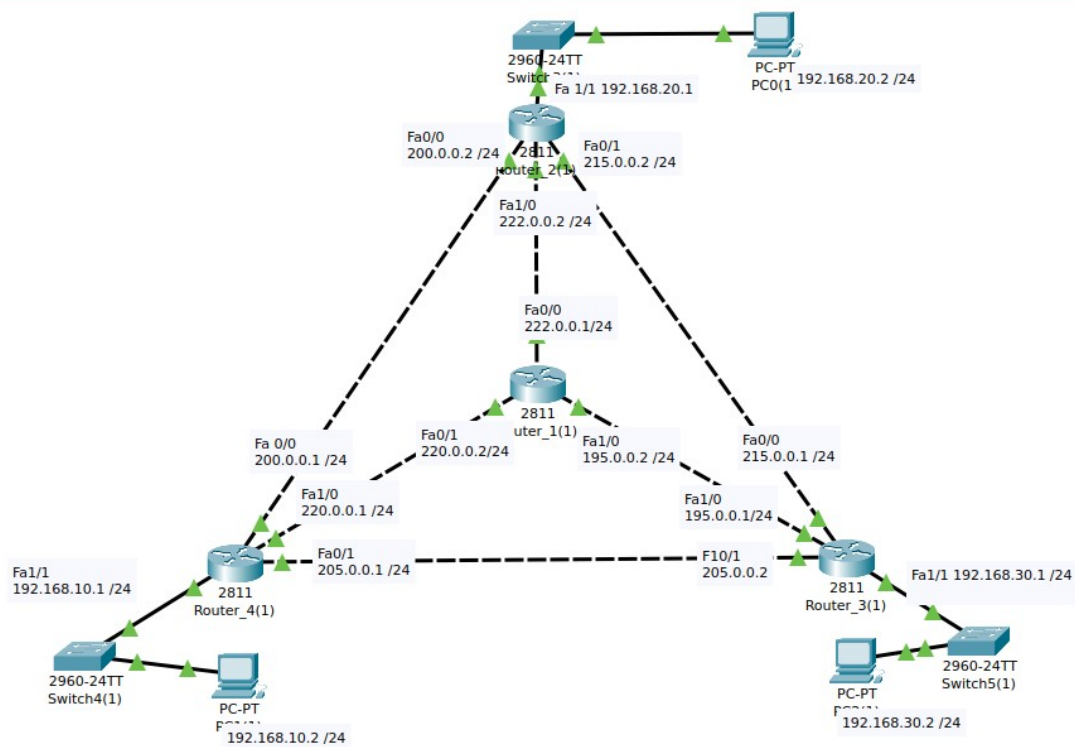


.

Failed PC1 Router_2 IC... 0.000 N 1 (e...

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Testing b/w Router 3 And Router 2:

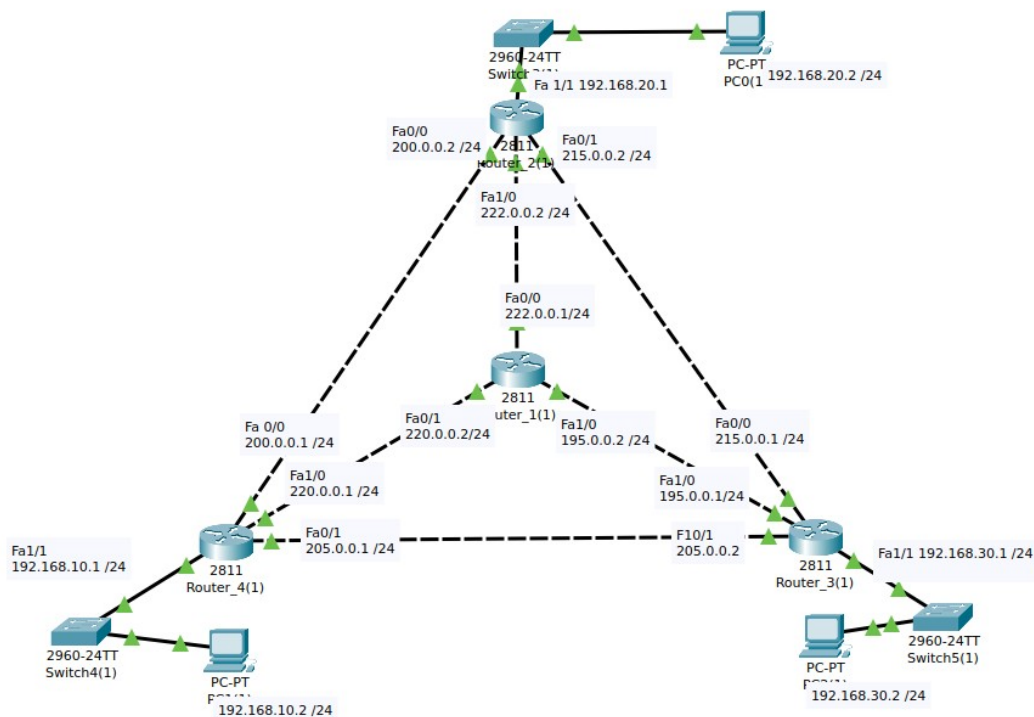


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Failed Rout... PC0(1) IC... 0.000 N 8 (e... (delete)

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Testing b/w Router 3 And Router 4:



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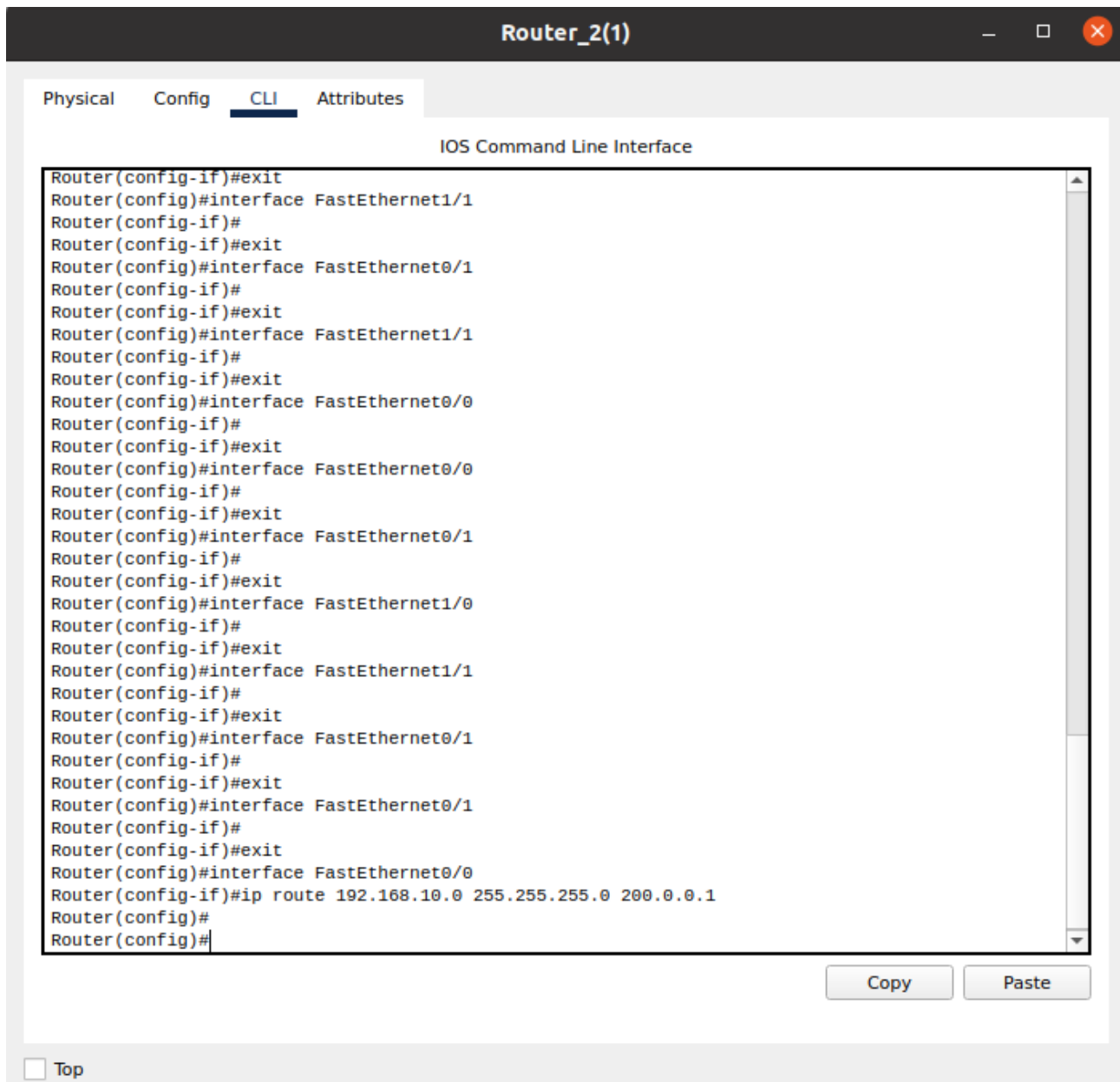
Failed PC1(1) PC2(1) IC... 0.000 N 9 (e... (delete)

•

Conclusion: We can see, we cannot transfer files between different Networks. For this purpose, we will do **STATIC ROUTING** between the Networks.

Static Routing between Router 4 And Router 2:

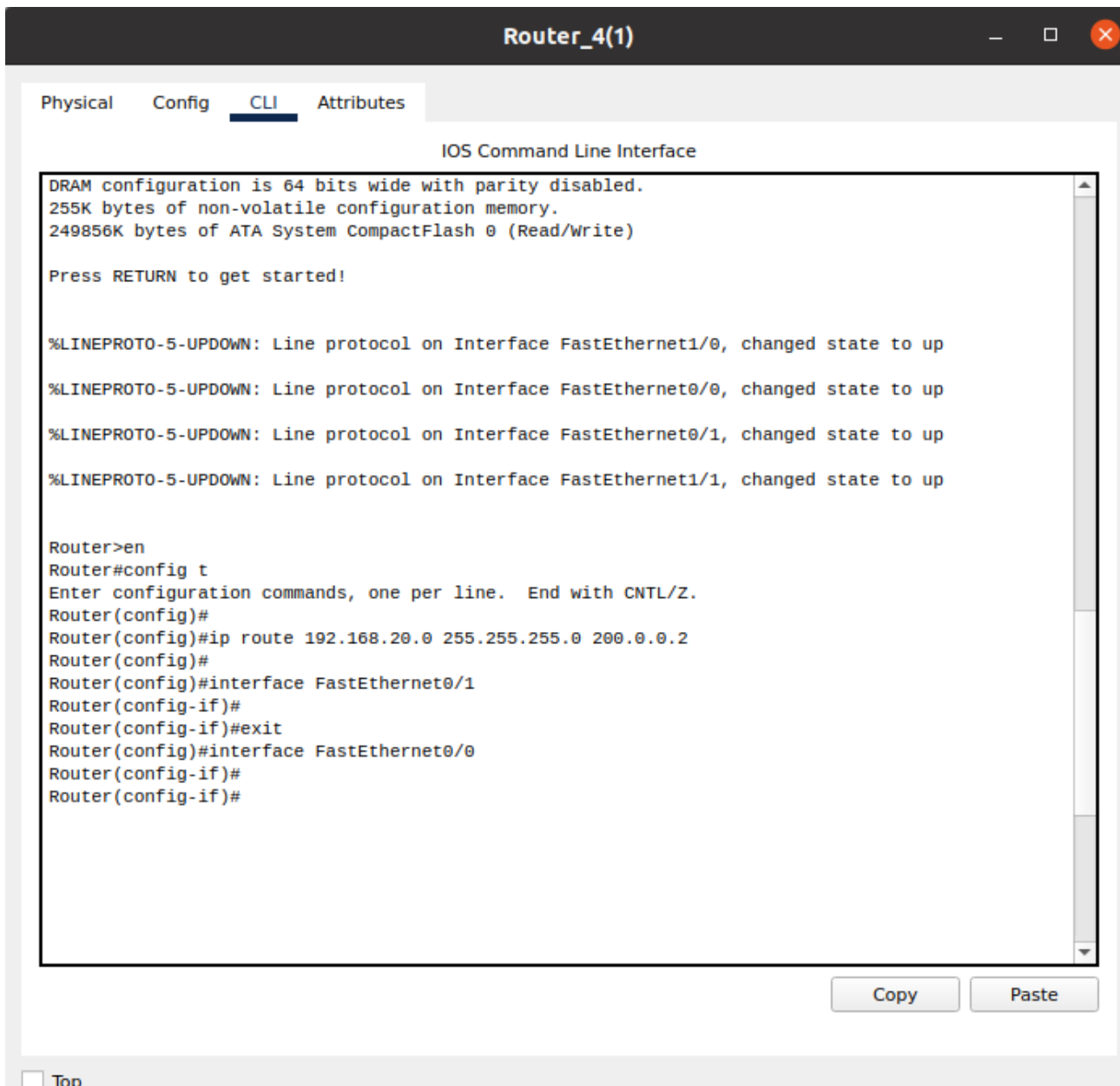
Router 2:



• Here is the Router 2 CLI Configuration.

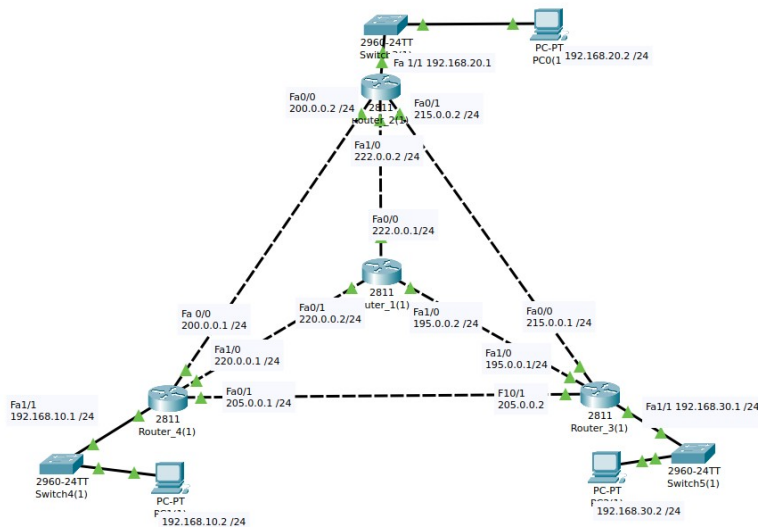
Router 4:

Below is the Router 4 Configuration.



Testing:

Packet Send successfully after the Static Routing between the Routers.



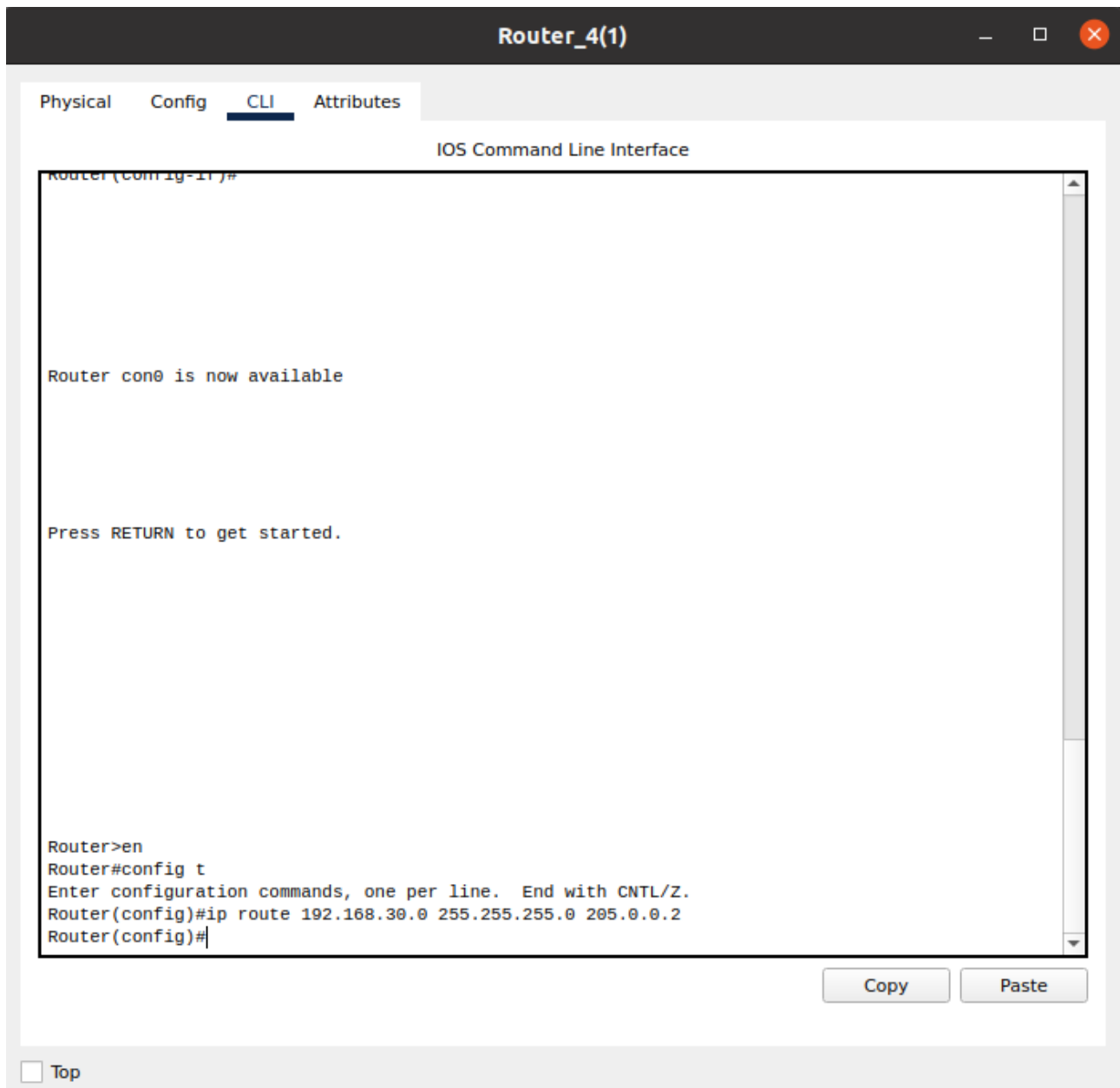
Realtime											
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete	
Successful		PC1(1)	PC0(1)	IC...		0.000	N	0	(e...	(delete)	

Realtime											
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete	
Successful		PC1(1)	PC0(1)	IC...		0.000	N	0	(e...	(delete)	

Static Routing between Router 4 And Router 3:

Router 4:

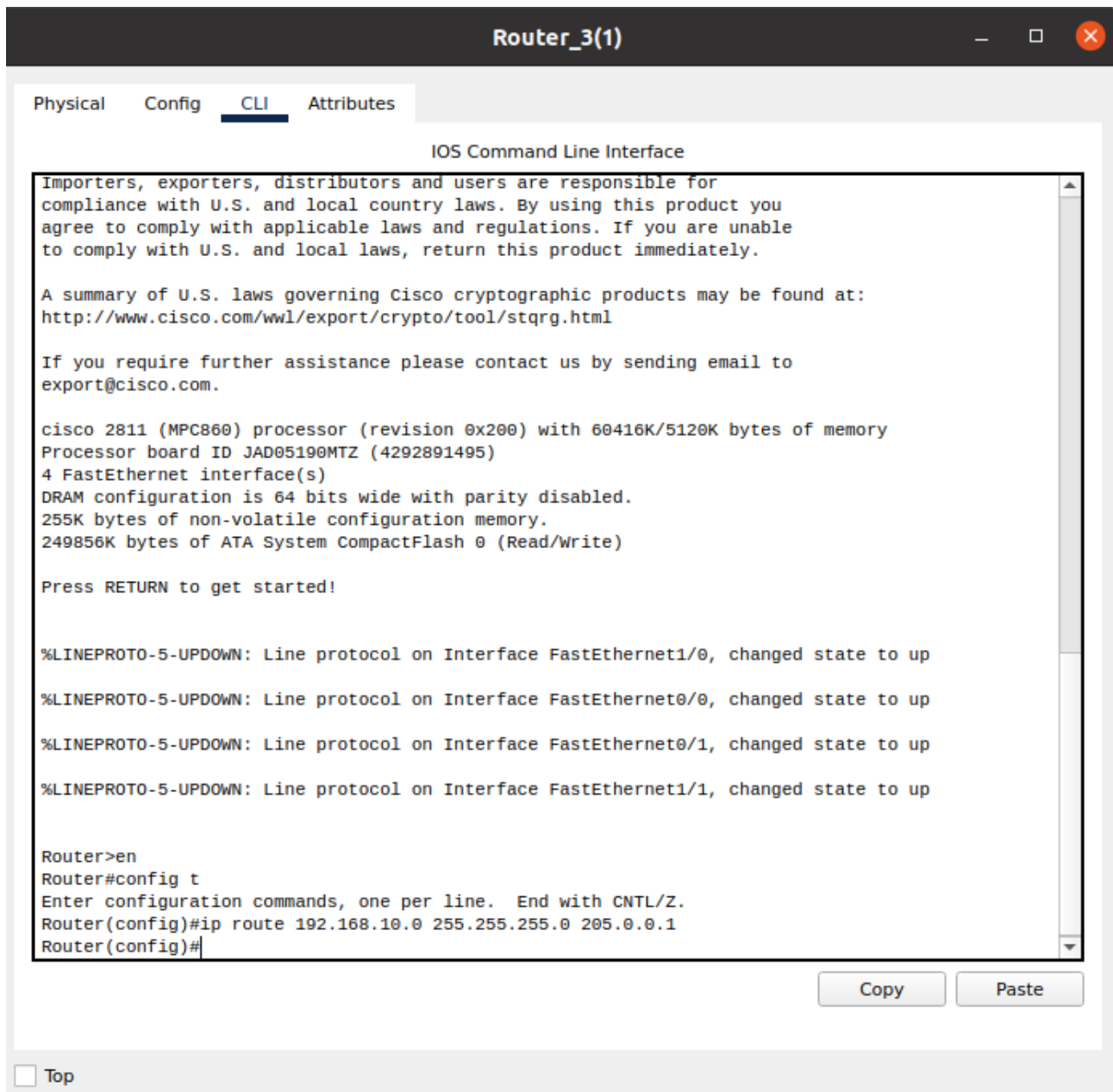
Below is the Router 4 Configuration.



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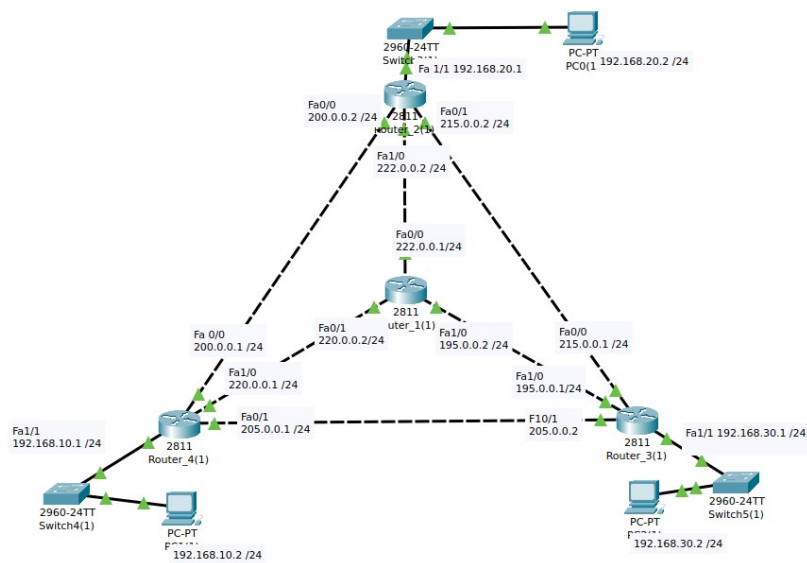
Router 3:

Below is the Router 3 Configuration.



Testing:

Packet Send successfully after the Static Routing between the Routers.



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC1(1)	PC2(1)	IC...		0.000	N	0	(e...	(delete)

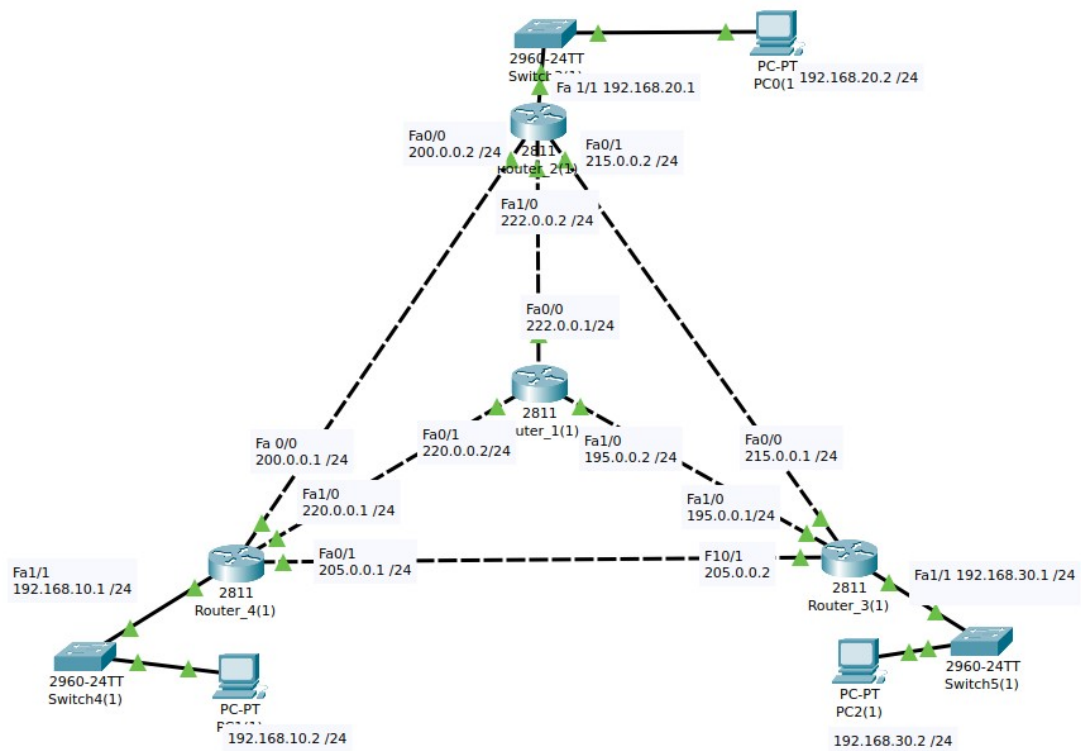
.

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC1(1)	PC2(1)	IC...		0.000	N	0	(e...	

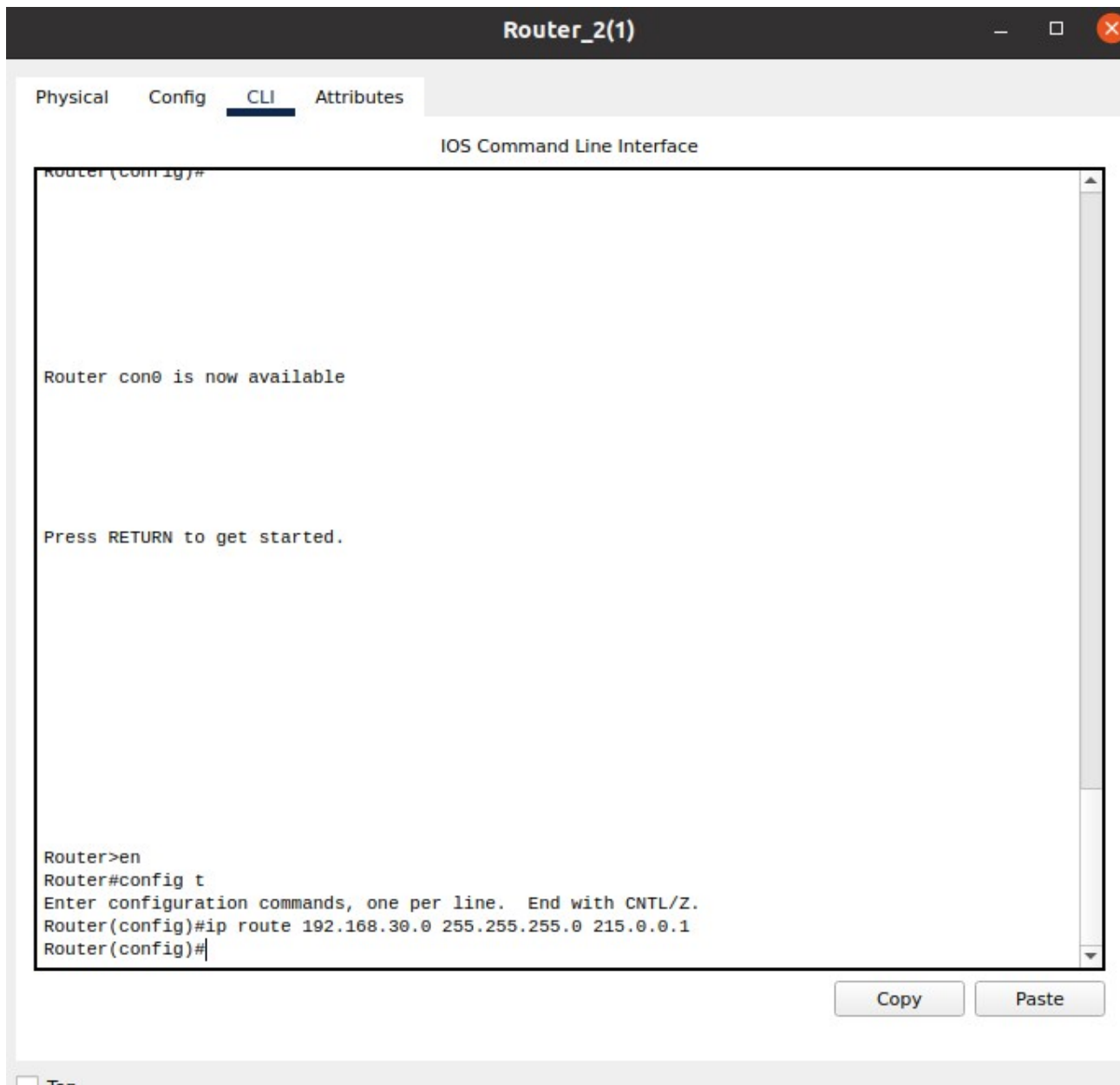
.

Static Routing between Router 2 And Router 3:

Router 2:



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Below is the Router 2 Configuration.



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Router-3:

Below is the Router-3 Configuration.

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Router_3(1)

Physical

Config

CLI

Attributes

IOS Command Line Interface

Router con0 is now available

Press RETURN to get started.

Router>en

Router#ip route 192.168.20.0 255.255.255.0 215.0.0.2

^

% Invalid input detected at '^' marker.

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#ip route 192.168.20.0 255.255.255.0 215.0.0.2

Router(config)#

Copy

Paste

☐ Top

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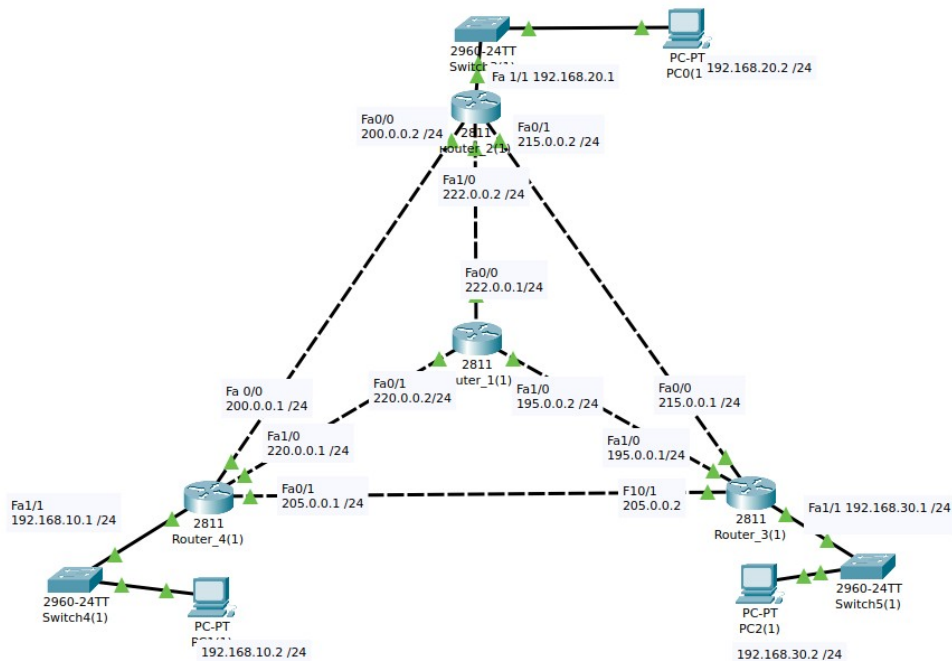
.

.

.

.

Testing:



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC2(1)	PC0(1)	IC...		0.000	N	0	(e...	

.

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC2(1)	PC0(1)	IC...		0.000	N	0	(e...	

.

Successfully all router configured via Static Routing.

Conclusion:

Now you can transfer any packet between any networks of the given Topology.

[illegible]

PART B.

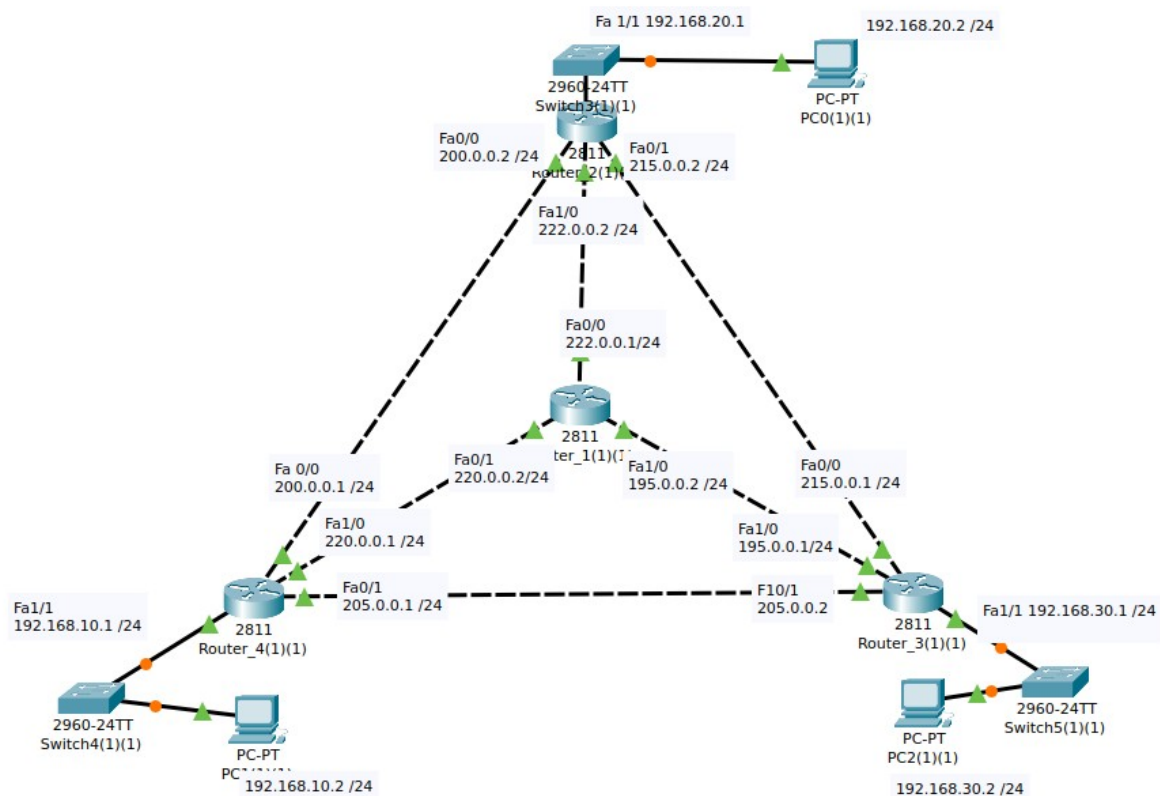
Answer:

We're required create a server that will assign the IP's to all the devices of the Network.

Initial Step:

For this purpose, we are going to add a DHCP Server to the Topology.

Topology:



Adding Server:

The initial step is of,

- Adding of the Server to our Topology.

Demonstration:

-



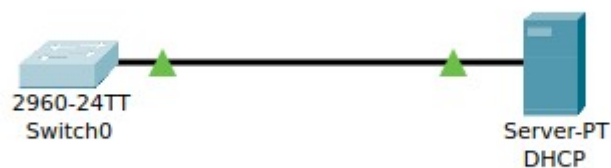
-

Connection:

Now we are going to connect it to Router Using **Copper-Straight-Through** wire.

-

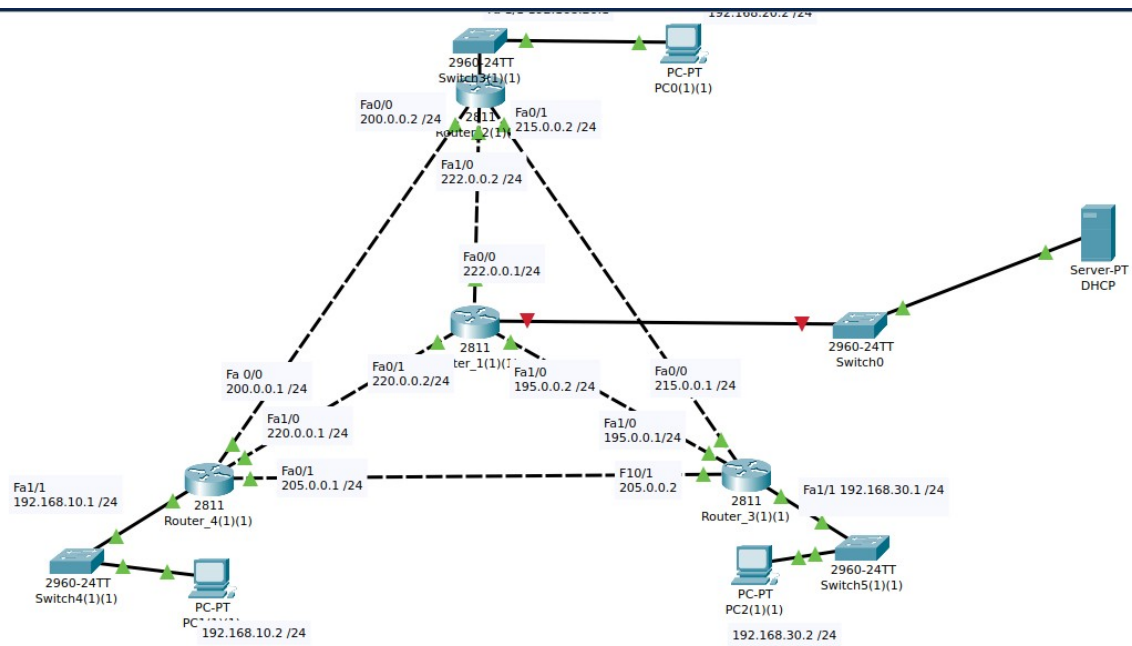
-



-

Next Step:

Now connect this, server to the Centralized Router via the Wire.



Assigning IP To The Server:

DHCP

Physical

Config

Services

Desktop

Programming

Attributes

IP Configuration

X

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

196.0.0.2

Subnet Mask

255.255.255.0

Default Gateway

196.0.0.1

DNS Server

0.0.0.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::206:2AFF:FE5C:C053

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

•

Router Configuration For The Server:

Router_1(1)(1)

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

FastEthernet1/0

FastEthernet1/1

FastEthernet1/1

Port Status

☒ On

Bandwidth

☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex

☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address

0001.967C.6535

IP Configuration

IPv4 Address

196.0.0.1

Subnet Mask

255.255.255.0

Tx Ring Limit

10

Equivalent IOS Commands

Warning: Duplicate address 196.0.0.2 on FastEthernet1/1, sourced by 0000.2A5C.0055

Router(config-if)#exit

Router(config)#interface FastEthernet1/1

Router(config-if)#ip address 196.0.0.1 255.255.255.0

Router(config-if)#ip address 196.0.0.1 255.255.255.0

Router(config-if)#

Router(config-if)#exit

Router(config)#interface FastEthernet1/1

Router(config-if)#

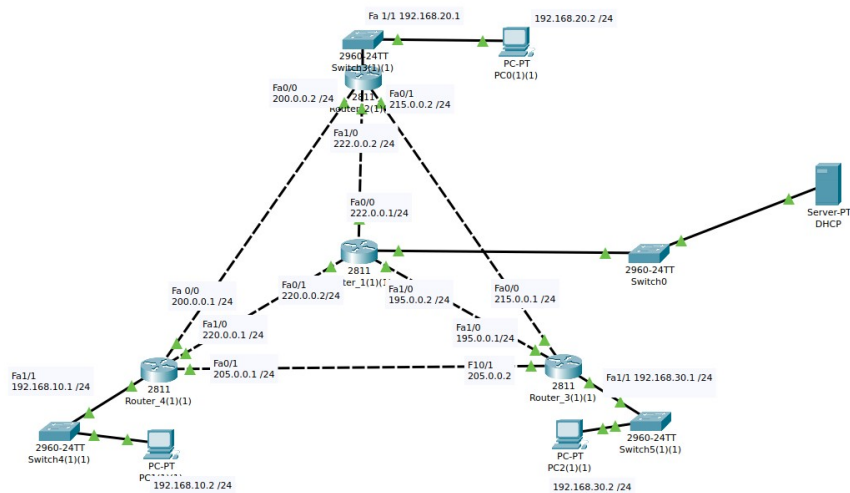
Router(config-if)#exit

Router(config)#interface FastEthernet1/1

Router(config-if)#

☐ Top

Connection Testing:



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Rout...	DHCP	IC...		0.000	N	0	(e...	(delete)
	Successful	Rout...	DHCP	IC...		0.000	N	1	(e...	(delete)

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Rout...	DHCP	IC...		0.000	N	0	(e...	
	Successful	Rout...	DHCP	IC...		0.000	N	1	(e...	

DHCP Server Configuration Of DHCP Services: Adding Pool.

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

Interface

FastEthernet0

Service

☒ On
☐ Off

Pool Name

P1

Default Gateway

196.0.0.1

DNS Server

0.0.0.0

Start IP Address :

196

0

0

0

Subnet Mask:

255

255

255

0

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
serverPool	0.0.0.0	0.0.0.0	196.0.8.0	255.25...	255	0.0.0.0	0.0.0.0
P1	196.0.0.1	0.0.0.0	196.0.0.0	255.25...	255	0.0.0.0	0.0.0.0

☐ Top

Switching On DHCP Services:

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

Interface

FastEthernet0

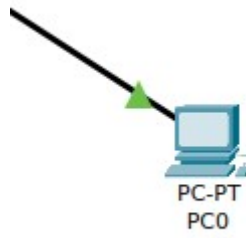
Service

☒ On
☐ Off

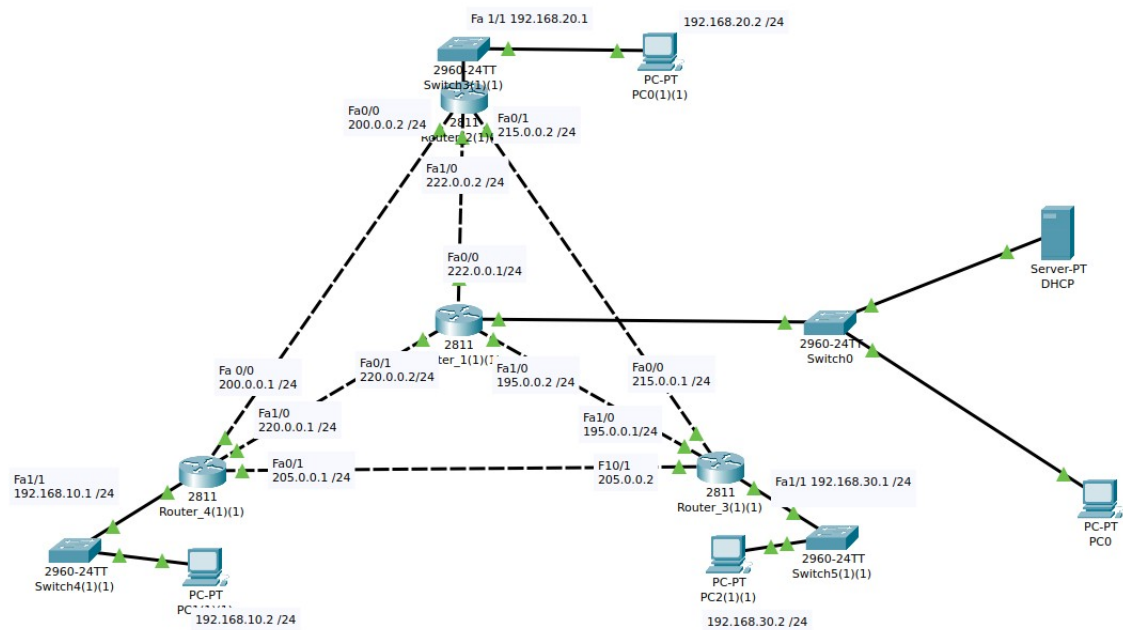
Tesing DHCP Server Working:

Adding A PC:

-
-
-
-



Connecting It To Server:



-

Testing DHCP IP Addressing:

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 196.0.0.3

Subnet Mask 255.255.255.0

Default Gateway 196.0.0.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::205:5EFF:FE9E:DC8B

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

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Adding Pools For The Whole Network:

For Router 3:

We are adding Pool P9 for router 3.

Demonstration:

DHCP

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

Interface

FastEthernet0

Service

On

Off

Pool Name

P9

Default Gateway

196.0.0.1

DNS Server

0.0.0.0

Start IP Address :

196

168

30

0

Subnet Mask:

255

255

255

0

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
P9	196.0.0.1	0.0.0.0	196.16...	255.25...	255	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	196.0.8.0	255.25...	255	0.0.0.0	0.0.0.0
P1	196.0.0.1	0.0.0.0	196.0.0.0	255.25...	255	0.0.0.0	0.0.0.0

☐ Top

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Testing DHCP IP Assignment For Router 3:

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

Interface

FastEthernet0

Service

On

Off

Pool Name

P8

Default Gateway

196.0.0.1

DNS Server

0.0.0.0

Start IP Address :

196

168

10

0

Subnet Mask:

255

255

255

0

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
P8	196.0.0.1	0.0.0.0	196.16...	255.25...	255	0.0.0.0	0.0.0.0
P9	196.0.0.1	0.0.0.0	196.16...	255.25...	255	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	196.0.8.0	255.25...	255	0.0.0.0	0.0.0.0
P1	196.0.0.1	0.0.0.0	196.0.0.0	255.25...	255	0.0.0.0	0.0.0.0

☐ Top

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Testing DHCP Auto IP Assigning On Router 4:

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PC1(1)(1)

Physical

Config

Desktop

Programming

Attributes

IP Configuration

X

Interface

FastEthernet0

IP Configuration

☒ DHCP

☐ Static

DHCP request successful.

IPv4 Address

192.168.10.2

Subnet Mask

255.255.255.0

Default Gateway

192.168.10.1

DNS Server

0.0.0.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::201:43FF:FE08:4207

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

Adding Pool P7 For Router 2:

DHCP

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

Interface

FastEthernet0

Service

☒ On

☐ Off

Pool Name

P7

Default Gateway

196.0.0.1

DNS Server

0.0.0.0

Start IP Address :

196

168

20

0

Subnet Mask:

255

255

255

0

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
P7	196.0.0.1	0.0.0.0	196.16...	255.25...	255	0.0.0.0	0.0.0.0
P8	196.0.0.1	0.0.0.0	196.16...	255.25...	255	0.0.0.0	0.0.0.0
P9	196.0.0.1	0.0.0.0	196.16...	255.25...	255	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	196.0.8.0	255.25...	255	0.0.0.0	0.0.0.0
P1	196.0.0.1	0.0.0.0	196.0.0.0	255.25...	255	0.0.0.0	0.0.0.0

☐ Top

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Testing DHCP Auto IP Assigning On Router 2:

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PC0(1)(1)

Physical
Config
Desktop
Programming
Attributes

IP Configuration

Interface

FastEthernet0

IP Configuration

☒ DHCP
☐ Static

DHCP request successful.

IPv4 Address

192.168.20.2

Subnet Mask

255.255.255.0

Default Gateway

192.168.20.1

DNS Server

0.0.0.0

IPv6 Configuration

☐ Automatic
☒ Static

IPv6 Address

 /

Link Local Address

FE80::201:64FF:FE0D:32DC

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

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-

Testing DHCP IP Assignment By Adding A New Device On Each Network:

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1st:

22, y: 916

PC-PT PC1

Fa0/0 200.0.0.2 /24

Fa0/1 220.0.0.2 /24

Fa1/0 220.0.0.1 /24

Fa0/1 205.0.0.1 /24

Fa1/1 192.168.10.1 /24

2960-24TT Switch4(1)(1)

PC-PT PC2

Router_4(1)(1)

PC1

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 192.168.20.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.20.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::201:63FF:FE41:8A4D

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

Top

PC2(1)(1)

2nd:

sical x: 1205, y: 1124

PC-PT PC2

Fa0/0 200.0.0.1 /24

Fa0/1 220.0.0.2 /24

Fa1/0 220.0.0.1 /24

Fa0/1 205.0.0.1 /24

Fa1/1 192.168.10.1 /24

2960-24TT Switch4(1)(1)

PC-PT PC1

Router_4(1)(1)

PC2

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 192.168.10.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.10.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::2D0:BCFF:FE8B:B6D4

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

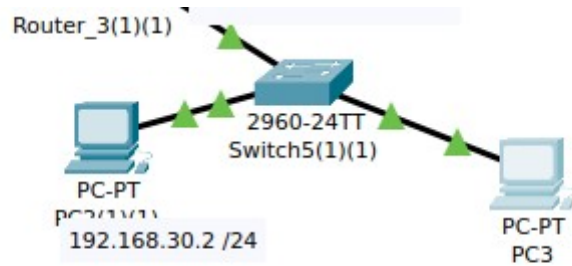
Authentication MD5

Username

Password

Top

3rd:



PC3

Physical

Config

Desktop

Programming

Attributes

IP Configuration
X

Interface FastEthernet0 ▾

IP Configuration

☒ DHCP

IPv4 Address 192.168.30.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.30.1

DNS Server 0.0.0.0

☐ Static

DHCP request successful.

IPv6 Configuration

☐ Automatic

IPv6 Address /

Link Local Address FE80::240:BFF:FEDC:E118

Default Gateway

DNS Server

☒ Static

802.1X

☐ Use 802.1X Security

Authentication MD5 ▾

Username

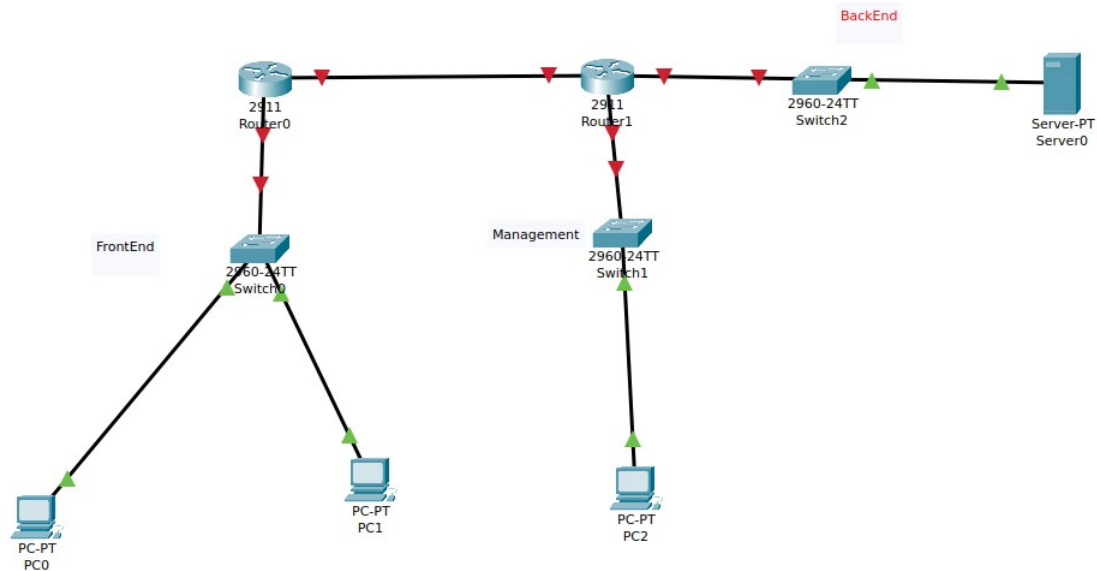
Password

☐ Top

Here Our B For The Centralized DHCP Server is Also Completed.

Q3:

Answer:



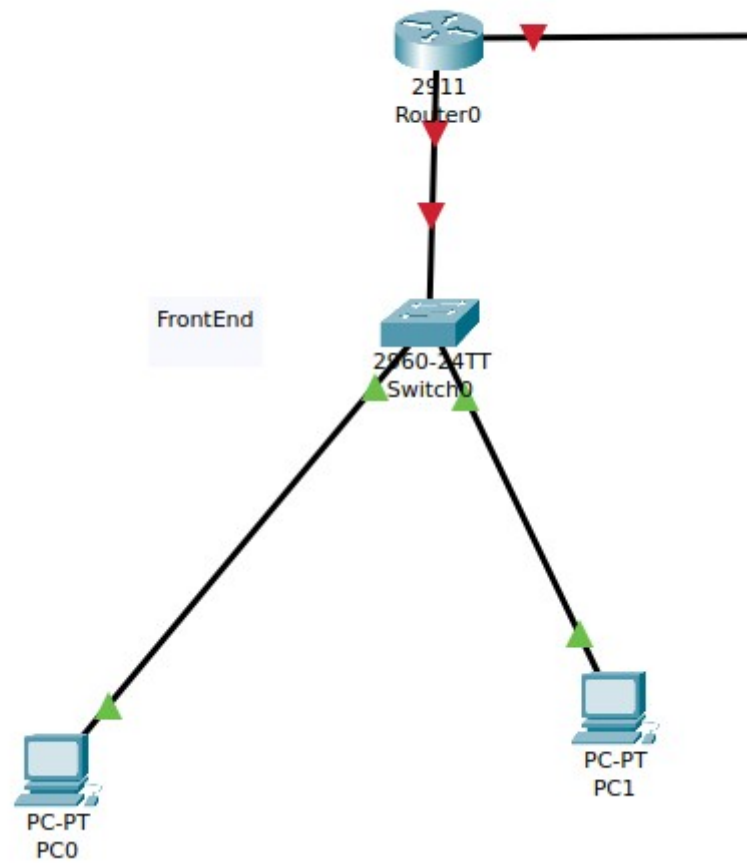
•

This is our. Topology,

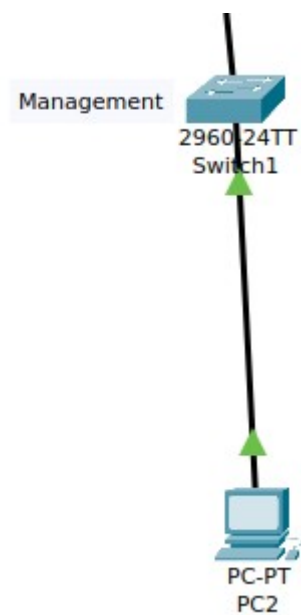
We've,

FrontEnd:.

•

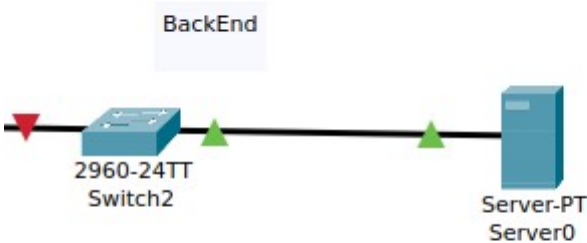


.Management:



BackEnd(Server):

- .
- .
- .
- .
- ..
- .
- .



Router Configuration:

Router0

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

GigabitEthernet0/2

Port Status

☒ On

Bandwidth

☒ 1000 Mbps ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex

☒ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address

00D0.BC0C.0903

IP Configuration

IPv4 Address

192.168.5.1

Subnet Mask

255.255.255.0

Tx Ring Limit

10

Equivalent IOS Commands

- ..
- .
- .

..

2nd Router Configuration:

Router1

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

GigabitEthernet0/2

Port Status

☒ 1000 Mbps

☐ 100 Mbps

☐ 10 Mbps

☒ On

Bandwidth

☒ 1000 Mbps

☐ 100 Mbps

☐ 10 Mbps

☒ Auto

Duplex

☐ Half Duplex

☒ Full Duplex

☒ Auto

MAC Address

000A.41CE.6503

IP Configuration

IPv4 Address

Subnet Mask

Tx Ring Limit

10

Equivalent IOS Commands

Would you like to enter the initial configuration dialog? [yes/no]:

Press RETURN to get started!

Router>enable

Router#

Router#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface GigabitEthernet0/2

Router(config-if)#

☐ Top

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Front End Dept Config:

The screenshot shows the configuration window for Router0, specifically for the GigabitEthernet0/0 interface. The interface is divided into several sections: GLOBAL, ROUTING, SWITCHING, and INTERFACE. The INTERFACE section is currently selected, showing the configuration for GigabitEthernet0/0. The settings include:

- Port Status: ☒ On
- Bandwidth: ☒ 1000 Mbps ☐ 100 Mbps ☐ 10 Mbps ☒ Auto
- Duplex: ☒ Half Duplex ☐ Full Duplex ☒ Auto
- MAC Address: 00D0.BC0C.0901
- IP Configuration:
 - IPv4 Address: 192.168.10.1
 - Subnet Mask: 255.255.255.0
- Tx Ring Limit: 10

Below the configuration fields, there is a section titled "Equivalent IOS Commands" which shows the following commands:

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
ip address 192.168.10.1 255.255.255.0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shutdown
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
```

Management Dept Config:

Router1

PhysicalConfigCLIAttributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

GigabitEthernet0/0

Port Status

☒ On

Bandwidth

☐ 1000 Mbps☒ 100 Mbps☐ 10 Mbps

☒ Auto

Duplex

☐ Half Duplex☒ Full Duplex

☒ Auto

MAC Address

000A.41CE.6501

IP Configuration

IPv4 Address

192.168.20.1

Subnet Mask

255.255.255.0

Tx Ring Limit

10

Equivalent IOS Commands

%LINK-3-CHANGED: Interface GigabitEthernet0/1, changed state to up

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

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/0

Router(config-if)#

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/2

Router(config-if)#

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/0

Router(config-if)#

☐ Top

-
-
-
-
-
-
-

Back End Dept Configuration:

Router1

PhysicalConfigCLIAttributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

GigabitEthernet0/1

Port Status

☒ On

Bandwidth

☐ 1000 Mbps☒ 100 Mbps☐ 10 Mbps

Duplex

☐ Half Duplex☒ Full Duplex

MAC Address

000A.41CE.6502

IP Configuration

IPv4 Address

192.168.30.1

Subnet Mask

255.255.255.0

Tx Ring Limit

10

Equivalent IOS Commands

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/0

Router(config-if)#

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/2

Router(config-if)#

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/0

Router(config-if)#

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/1

Router(config-if)#

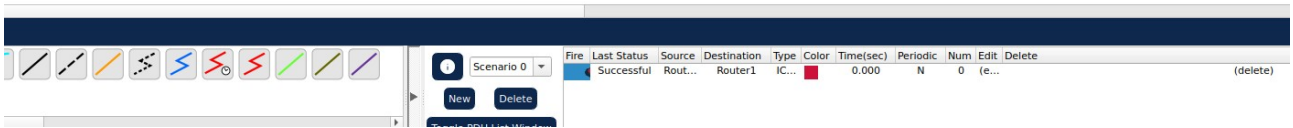
☐ Top

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.Connection Test B/w Routers:



- [illegible]

DHCP Server Config:

DHCP Server

Physical

Config

Services

Desktop

Programming

Attributes

IP Configuration

X

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

192.168.30.2

Subnet Mask

255.255.255.0

Default Gateway

192.168.30.1

DNS Server

192.168.30.3

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::200:CFF:FECC:D31D

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

.

DNS:

.

Web Server Config:

Web

Physical

Config

Services

Desktop

Programming

Attributes

IP Configuration

X

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

192.168.30.4

Subnet Mask

255.255.255.0

Default Gateway

192.168.30.1

DNS Server

192.168.30.3

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::290:CFF:FE0A:71B6

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

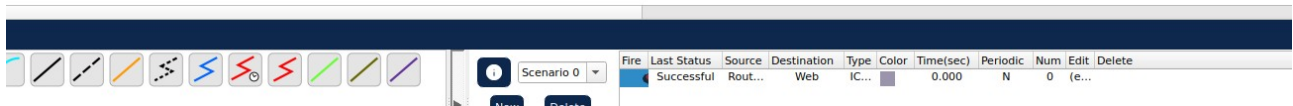
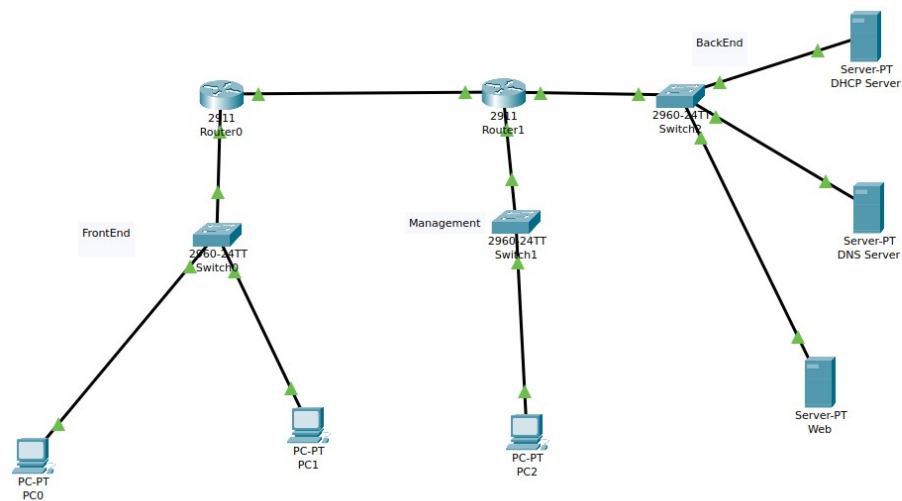
☐ Top

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Whole Topology:



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Connection Is Successful With Testing.

DHCP Config:

PC2

Physical

Config

Desktop

Programming

Attributes

IP Configuration

X

Interface

FastEthernet0

IP Configuration

☒ DHCP

☐ Static

DHCP request successful.

IPv4 Address

192.168.20.2

Subnet Mask

255.255.255.0

Default Gateway

192.168.20.1

DNS Server

192.168.30.3

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::205:5EFF:FE75:3DDC

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

-
-
-
-
-
-
-
-
-

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DNS Services:

DNS Server

PhysicalConfigServicesDesktopProgrammingAttributes

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	www.web.com	A Record	192.168.30.4

DNS Cache

Top

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•

•

•

.Q:

a.

How many subnet?

Answer: 4

b.

2

c.

4

d.

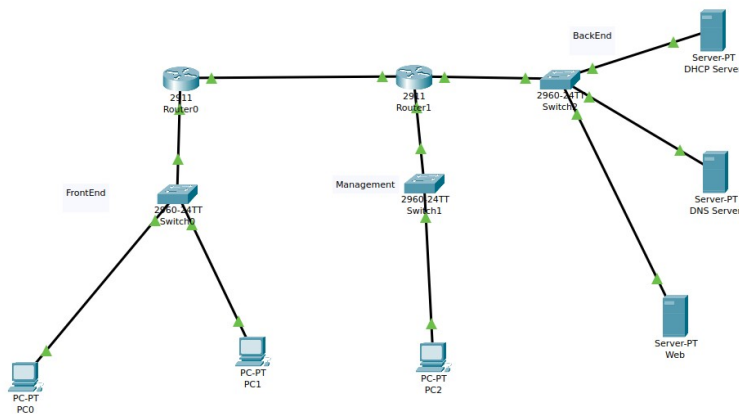
62

e.

220.10.10.192

f.

220.10.10.192



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Scenario 0	Successful	PC0	PC2	ICMP	Blue	0.000	N	0	(e...)	(delete)
New	Failed	PC0	PC2	ICMP	Red	0.000	N	1	(e...)	(delete)
Delete	Failed	PC0	PC2	ICMP	Green	0.000	N	2	(e...)	(delete)
Toggle PDU List Window	Failed	PC0	PC2	ICMP	Yellow	0.000	N	3	(e...)	(delete)
	Successful	PC0	PC1	ICMP	Blue	0.000	N	4	(e...)	(delete)

•

Successful Connection.

Maam Im sorry I forget the IP is given, so I've used Another IP. Really Sry for inconvinence

Same procedure will be followed by the IP given in the Paper.

Part g due to time shortage.Sry

