



VIT[®]

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

School of Information Technology and Engineering
Lab Assessment-I, JULY 2020
B.Tech., Fall-2020-2021

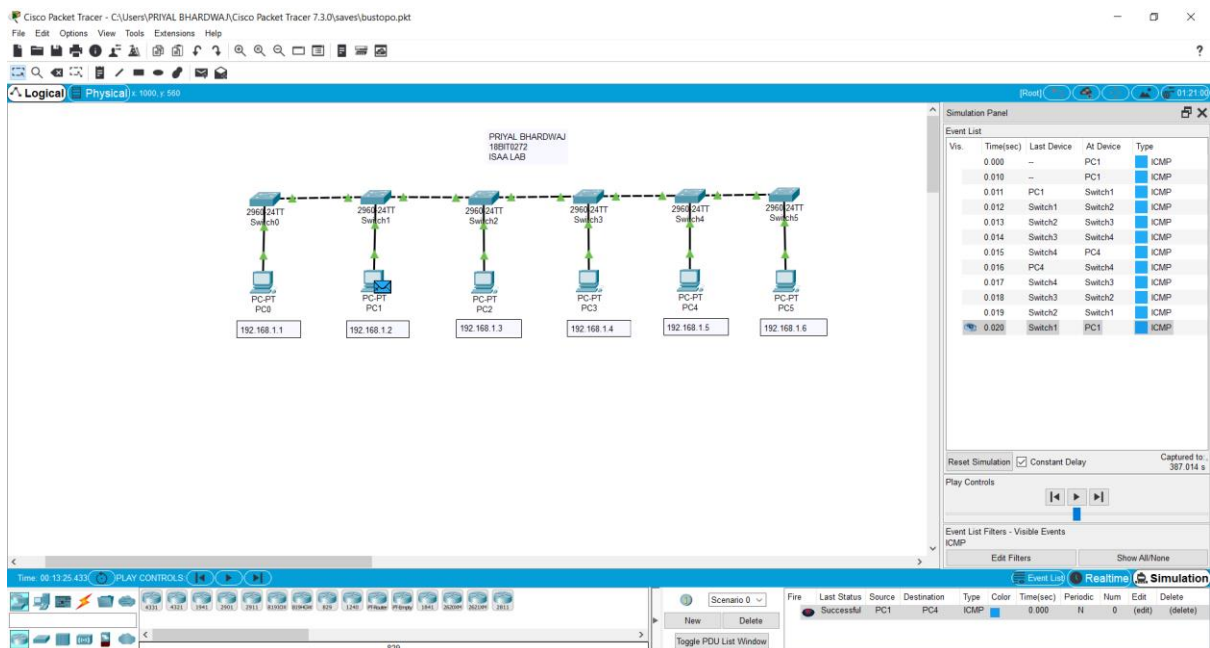
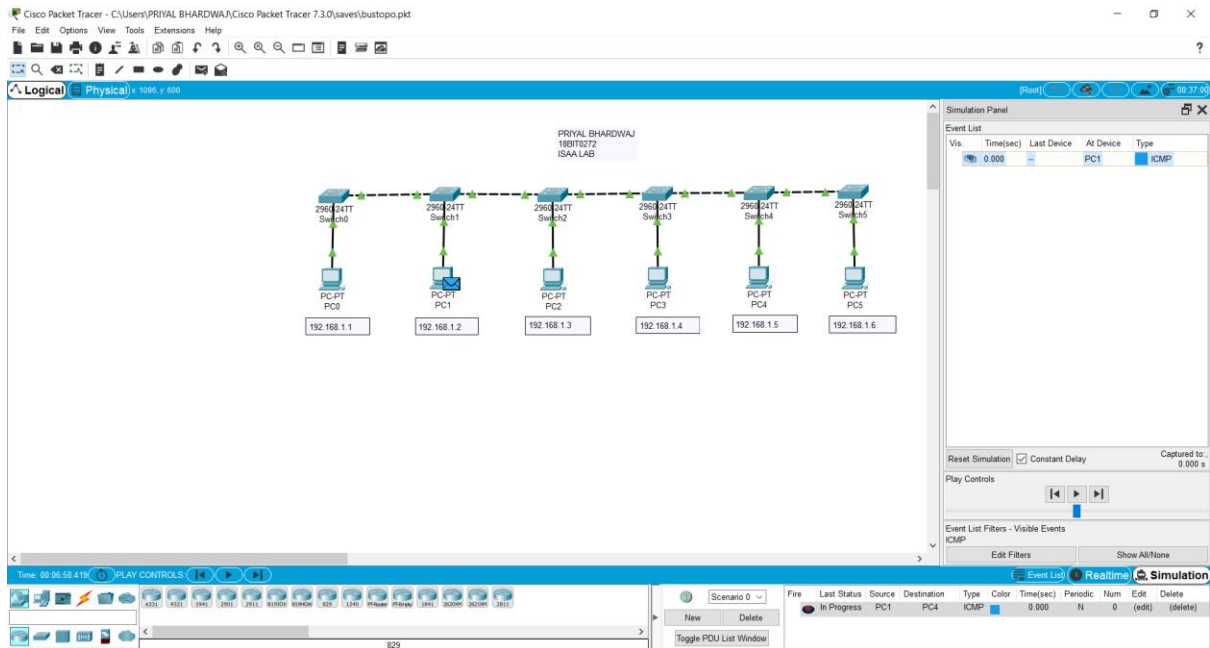
NAME	PRIYAL BHARDWAJ
REG. NO.	18BIT0272
COURSE CODE	CSE3501
COURSE NAME	INFORMATION SECURITY ANALYSIS & AUDIT
SLOT	L19+L20
FACULTY	Prof. THANDEESWARAN R.

Using Cisco Packet Tracer simulation tool, complete the following tasks:

1. Draw a network of 6 PCs and connecting device(s) like Switch to create various topologies (at least 4).

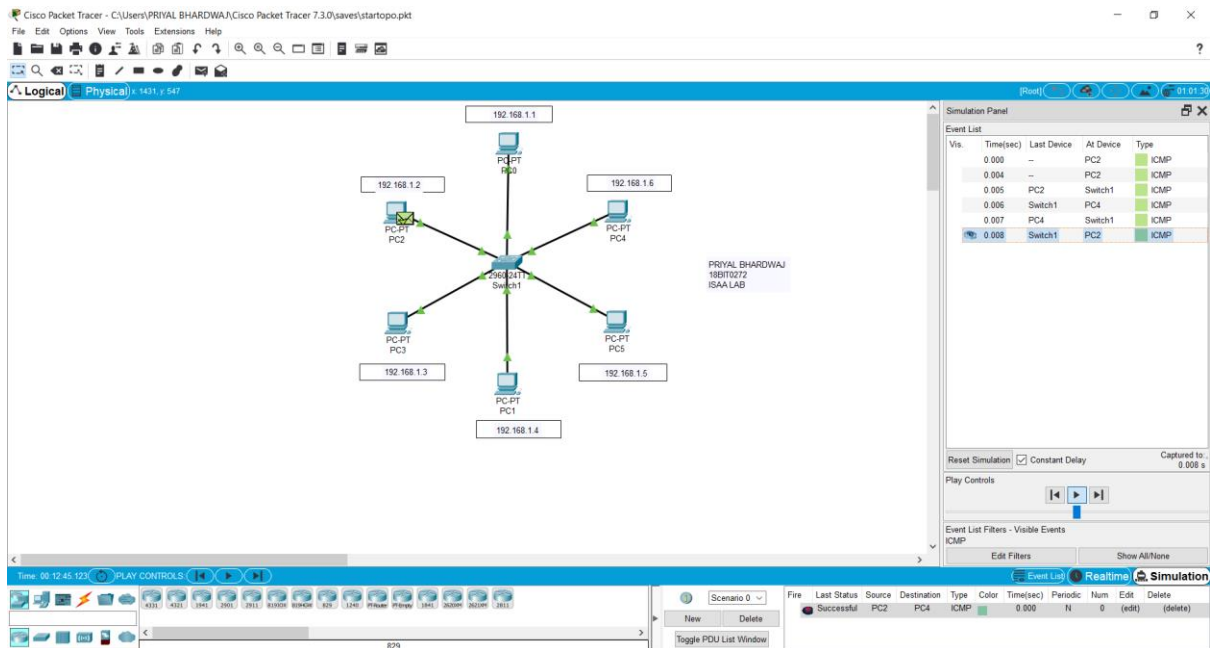
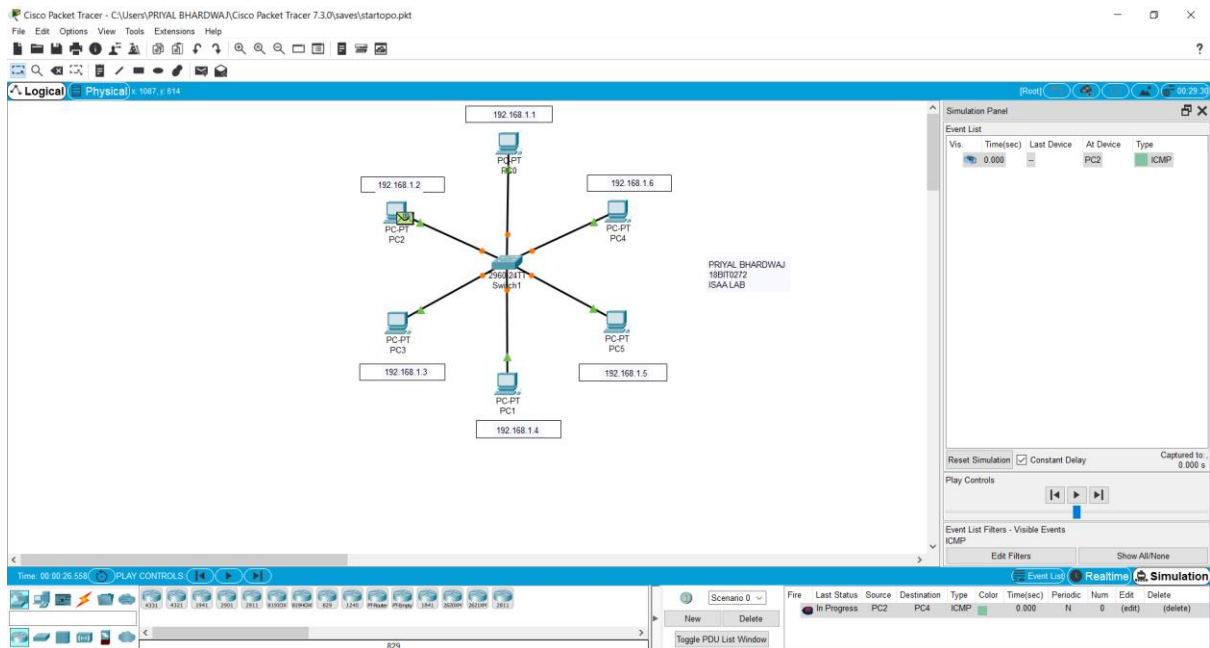
- Bus Topology:

From PC1 to PC4



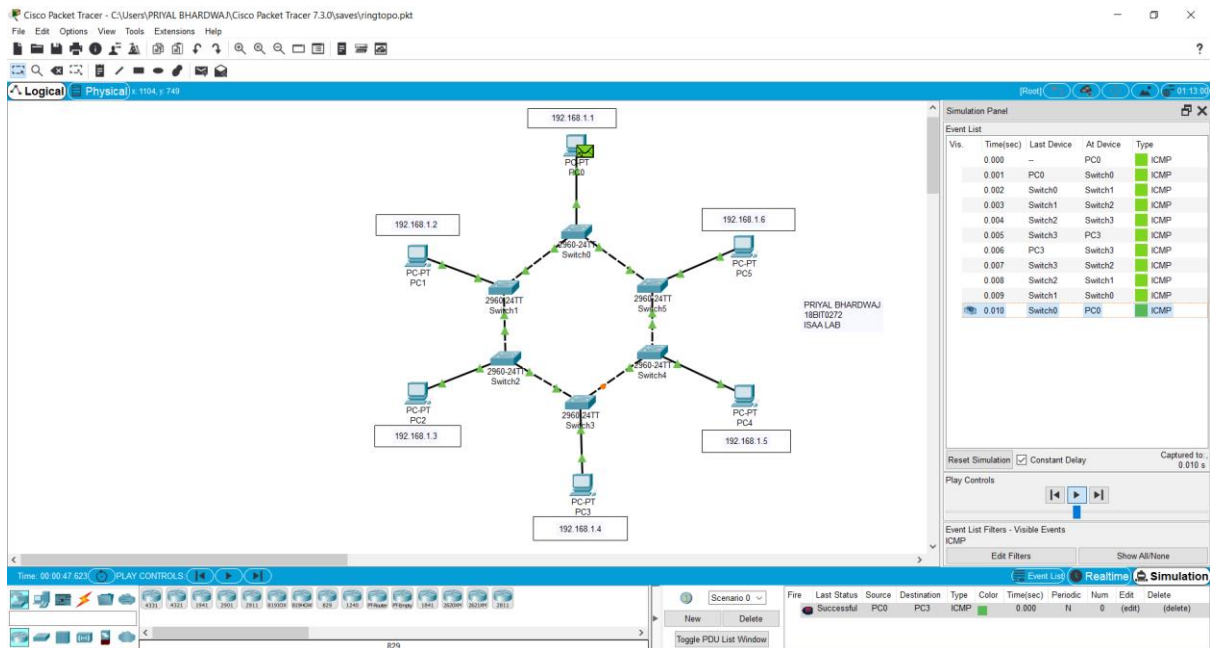
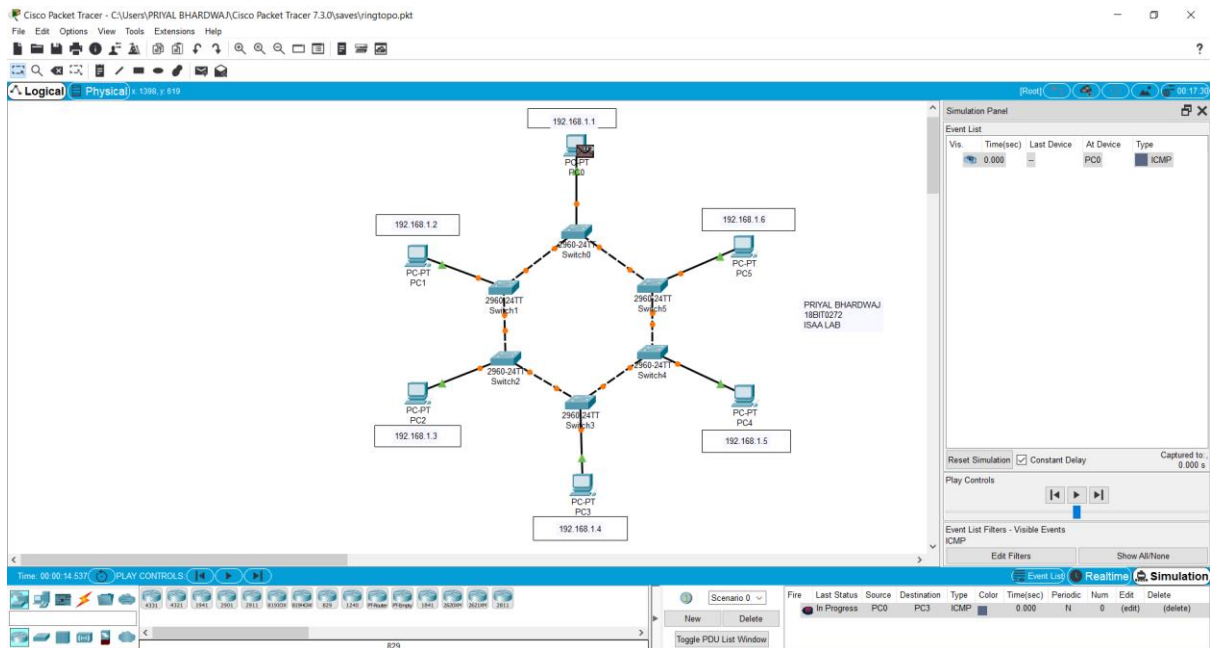
- Star Topology:

From PC2 to PC4



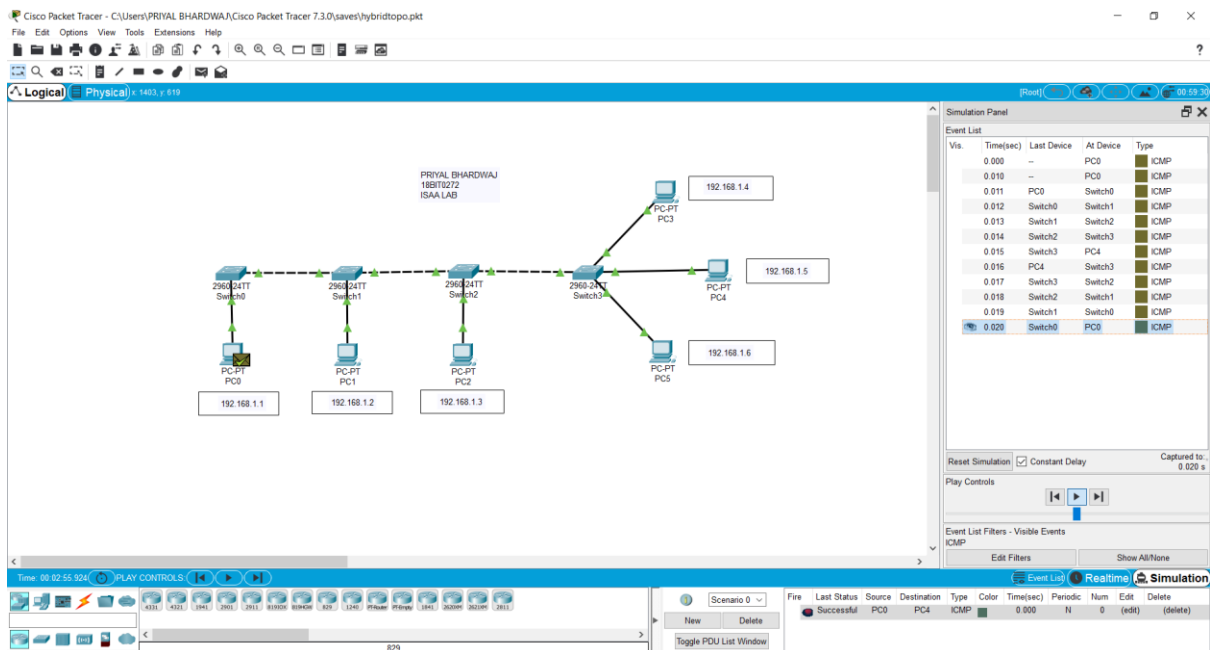
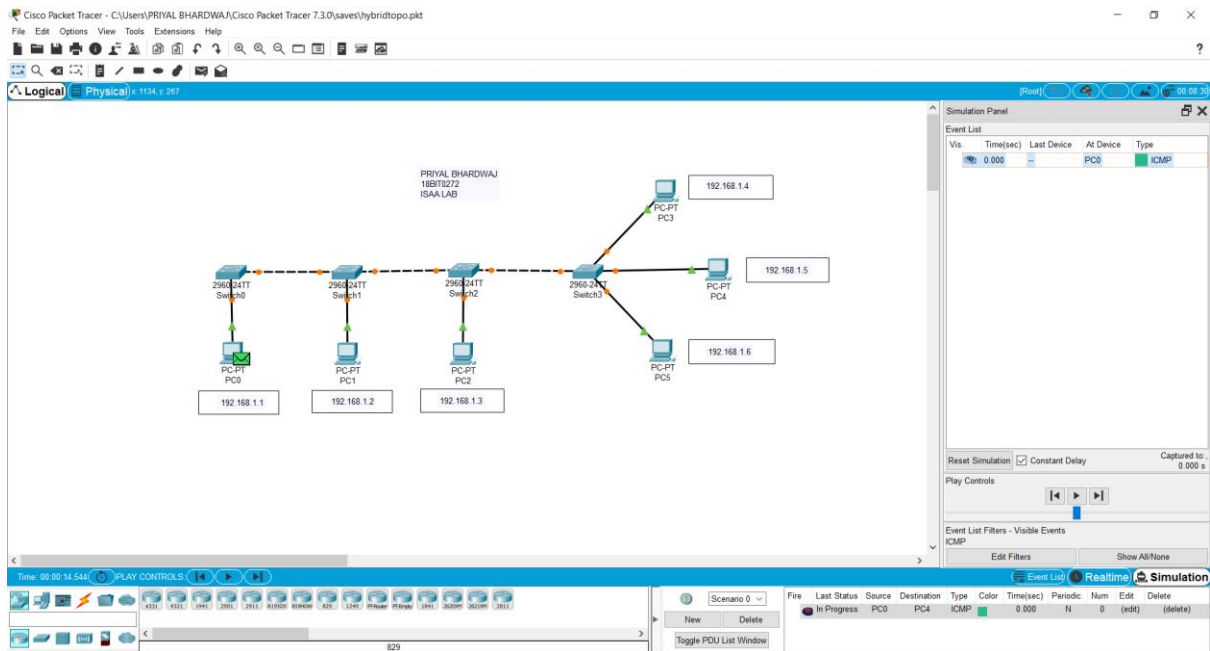
- Ring Topology:

From PC0 to PC3



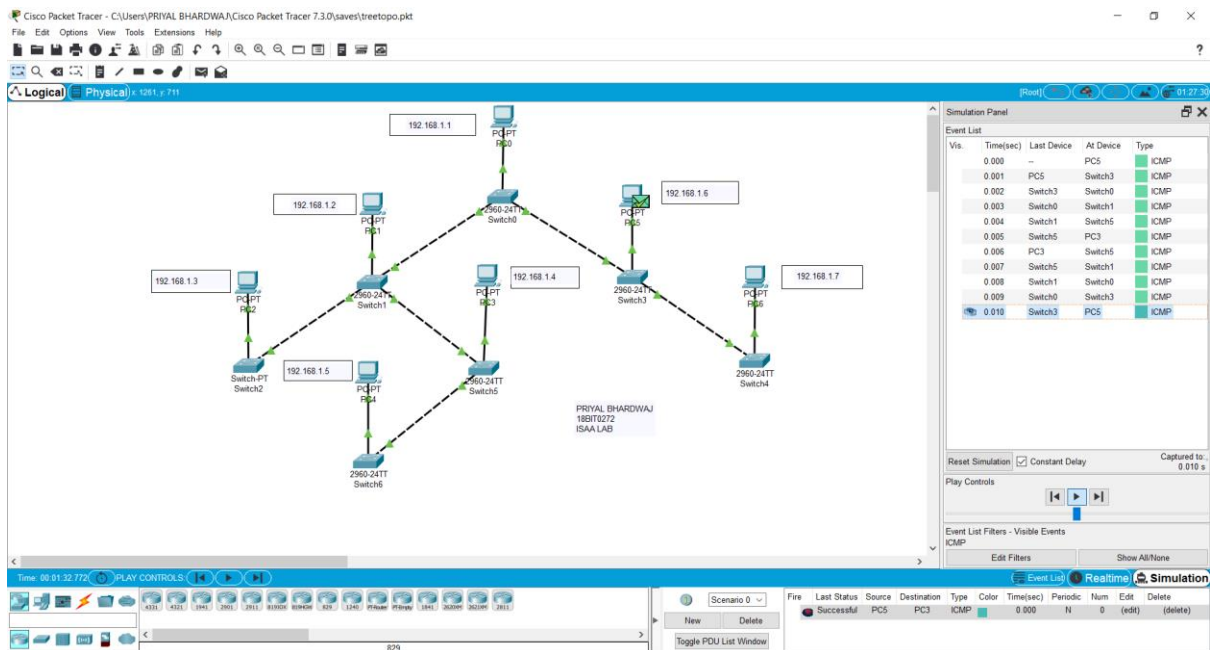
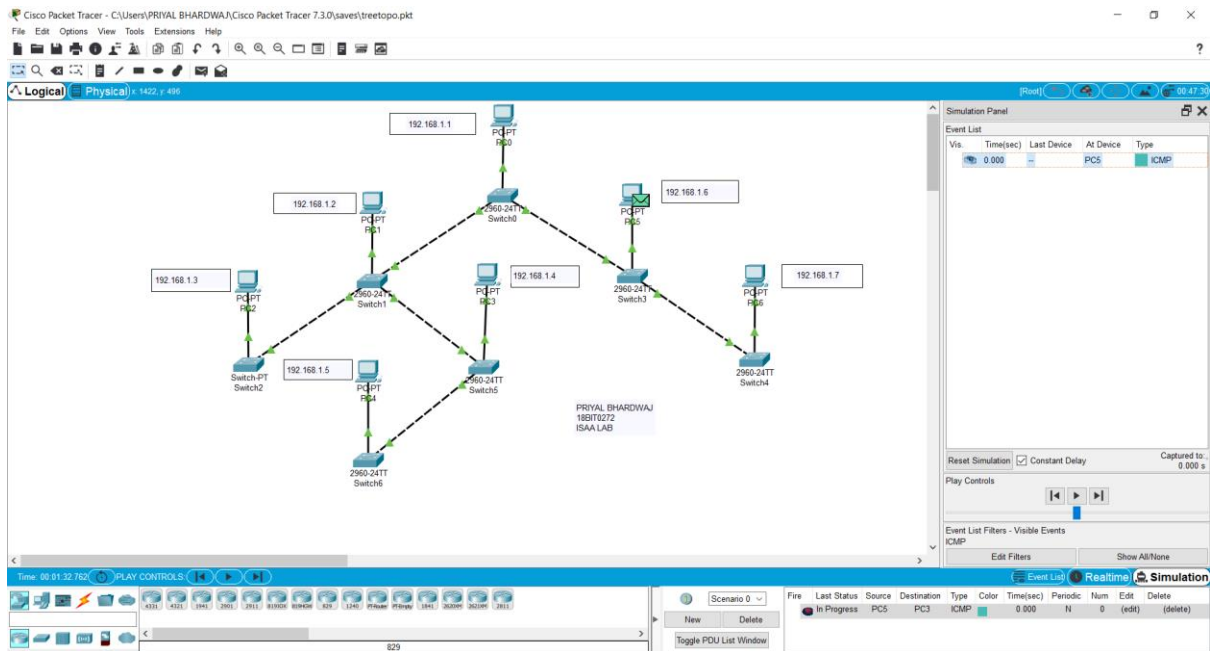
- Hybrid Topology:

From PC0 to PC4



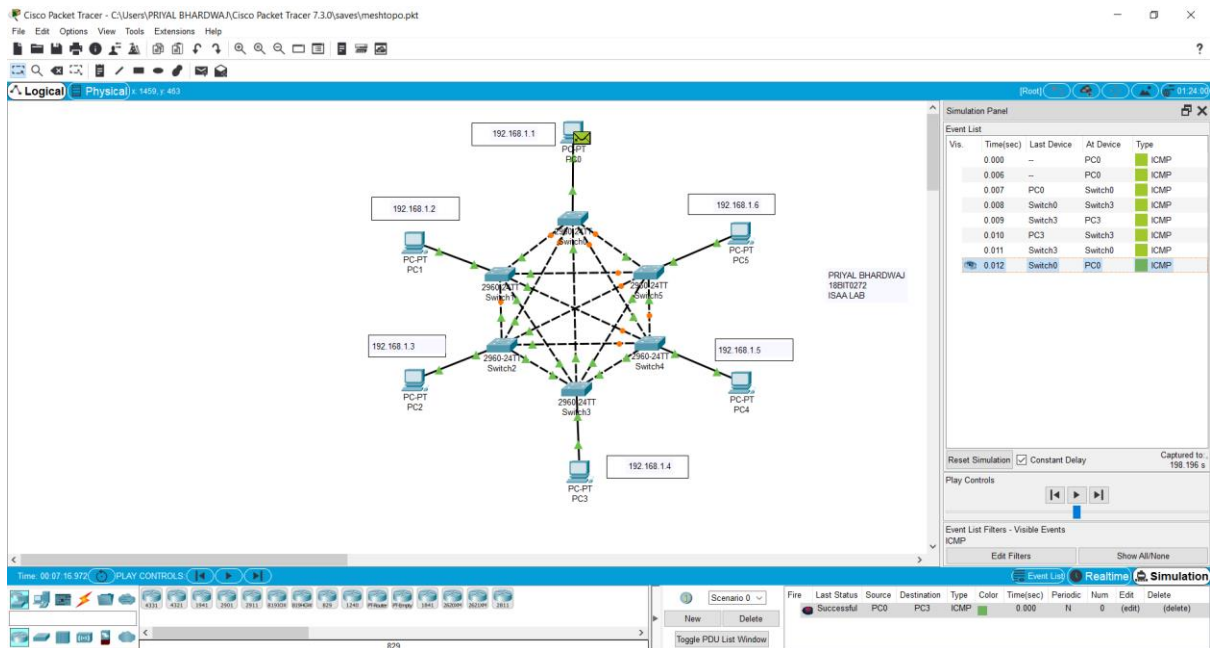
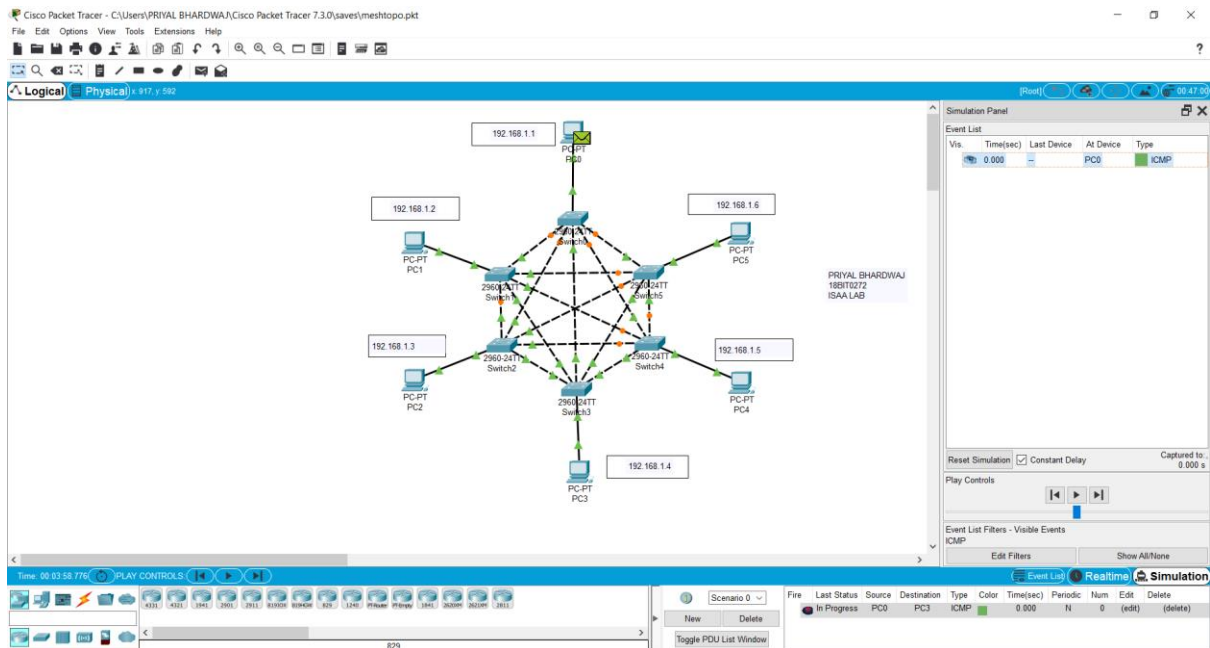
- Tree Topology:

From PC5 to PC3

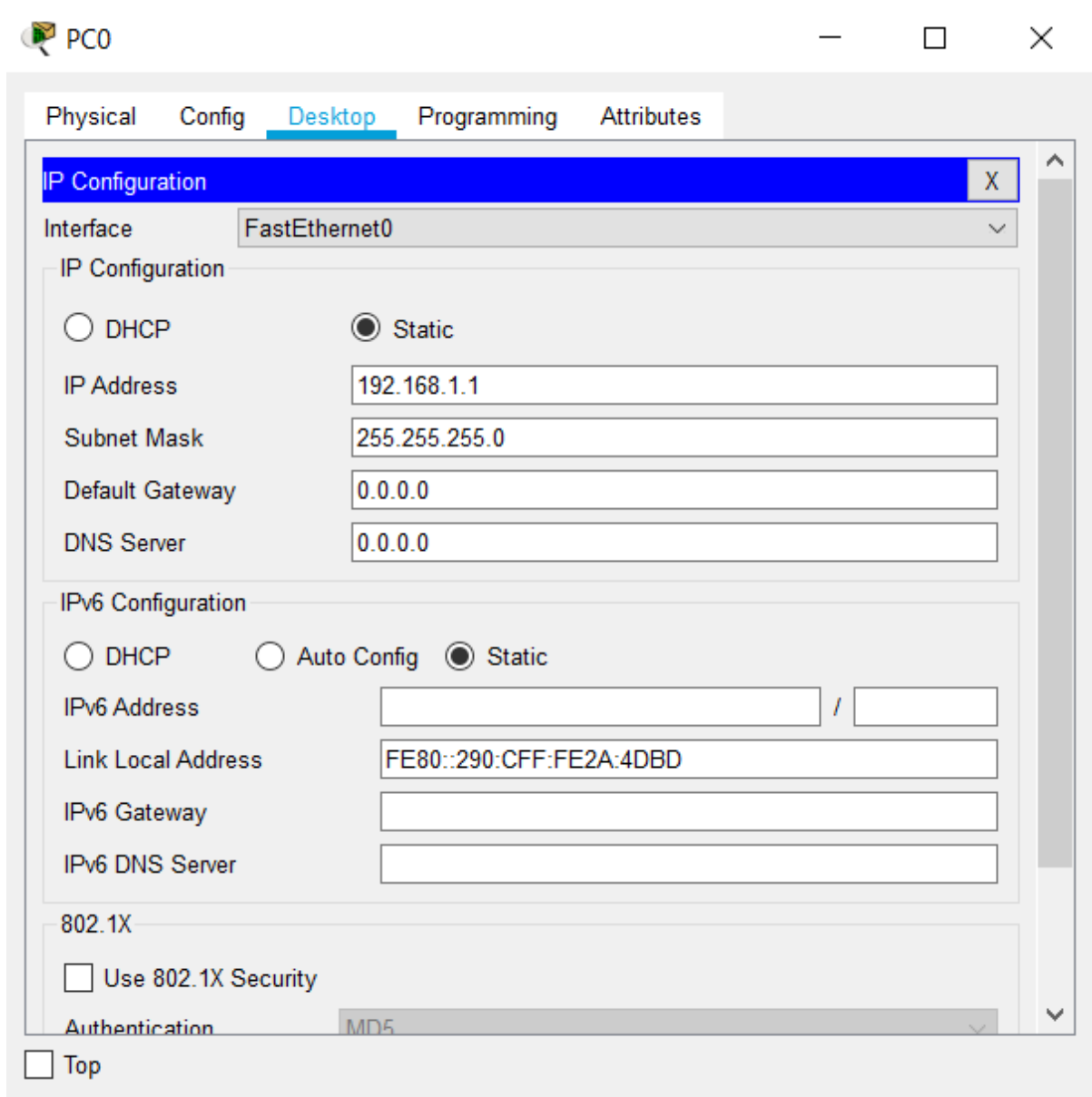


- Mesh Topology:

From PC0 to PC3



IP Configuration for PCs:

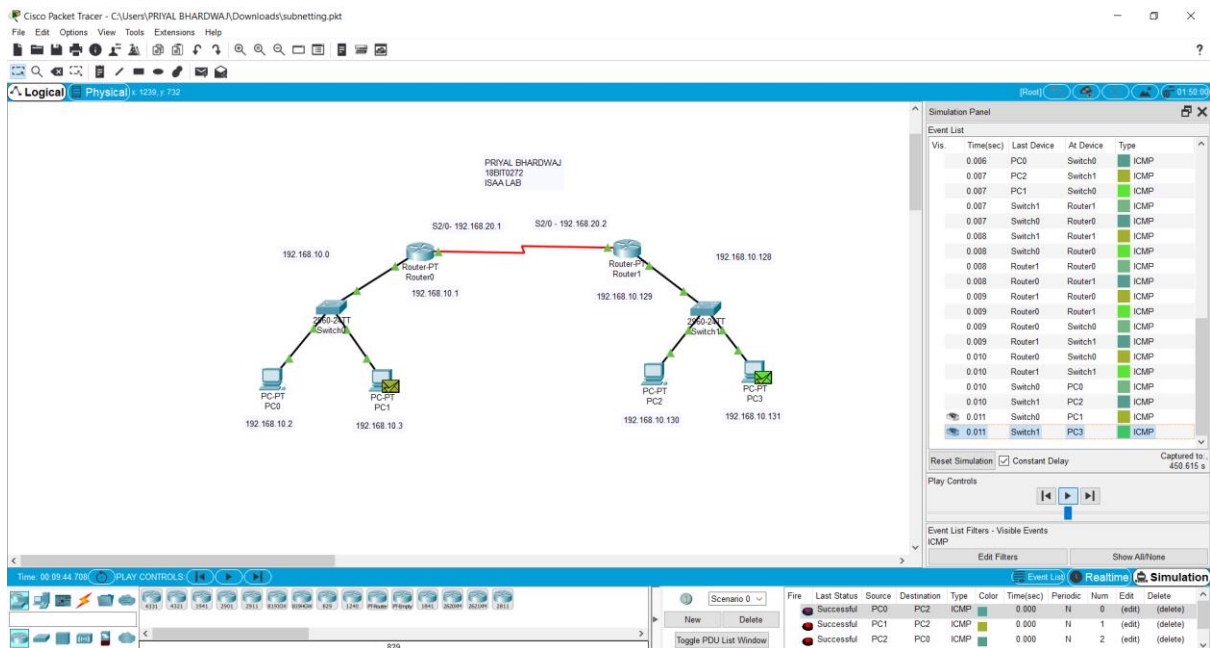
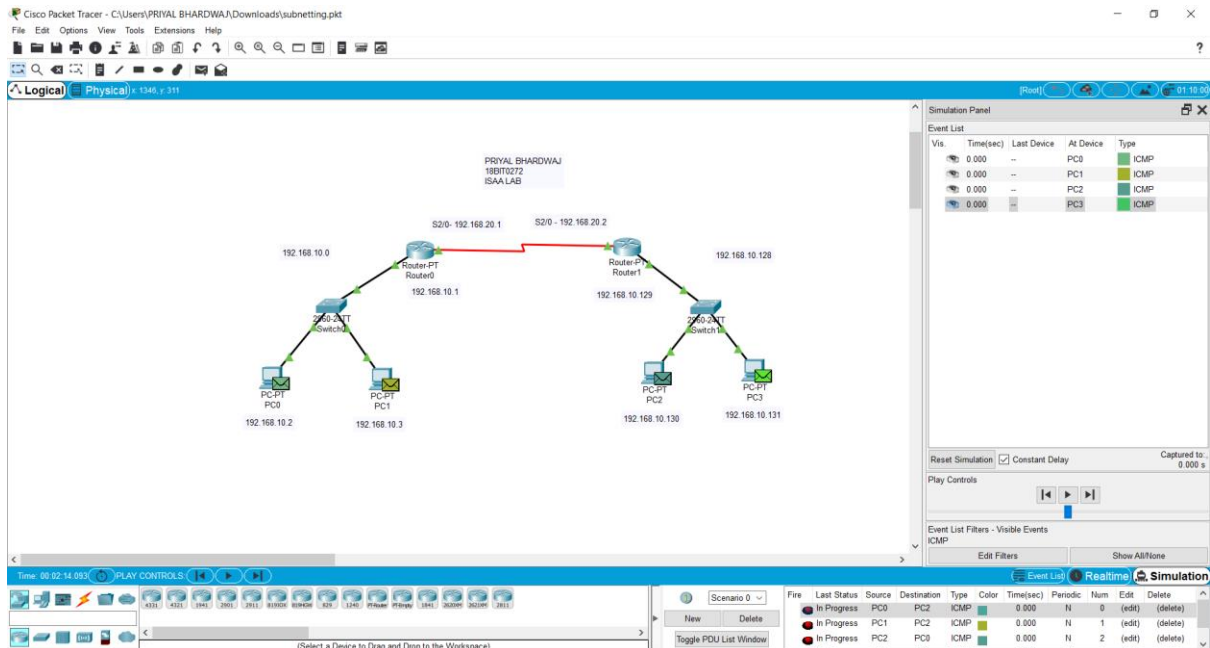


The screenshot shows a configuration window for PC0 with the following details:

- Interface:** FastEthernet0
- IP Configuration:**
 - ☐ DHCP
 - ☒ Static
 - IP Address: 192.168.1.1
 - Subnet Mask: 255.255.255.0
 - Default Gateway: 0.0.0.0
 - DNS Server: 0.0.0.0
- IPv6 Configuration:**
 - ☐ DHCP
 - ☐ Auto Config
 - ☒ Static
 - IPv6 Address: [Empty] / [Empty]
 - Link Local Address: FE80::290:CFF:FE2A:4DBD
 - IPv6 Gateway: [Empty]
 - IPv6 DNS Server: [Empty]
- 802.1X:**
 - ☐ Use 802.1X Security
 - Authentication: MD5
- ☐ Top

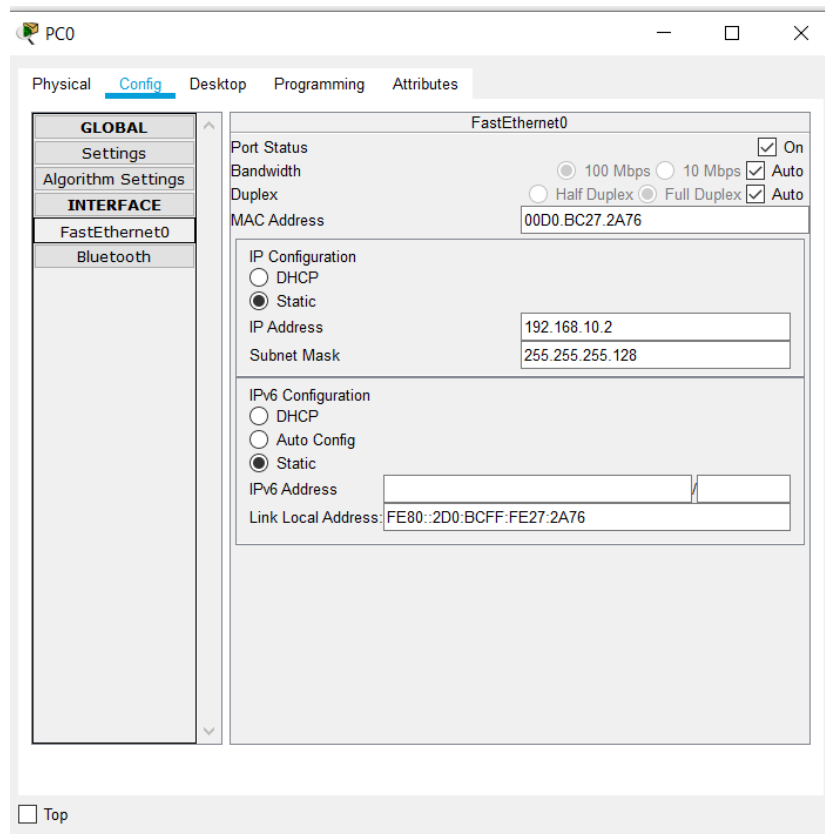
All of the above are verified for Internet Control Message Protocol (ICMP) Network. Similarly, we can check for other PCs.

- Design a Subnet for small organisation which has got a block of addresses starting with 192.168.10.0. The organisation needs 2 subnets; both share the number of addresses equally.



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC2	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC1	PC2	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC2	PC0	ICMP		0.000	N	2	(edit)	(delete)
	Successful	PC3	PC1	ICMP		0.000	N	3	(edit)	(delete)

PC0



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 00D0.BC27.2A76

IP Configuration

☐ DHCP

☒ Static

IP Address 192.168.10.2

Subnet Mask 255.255.255.128

IPv6 Configuration

☐ DHCP

☐ Auto Config

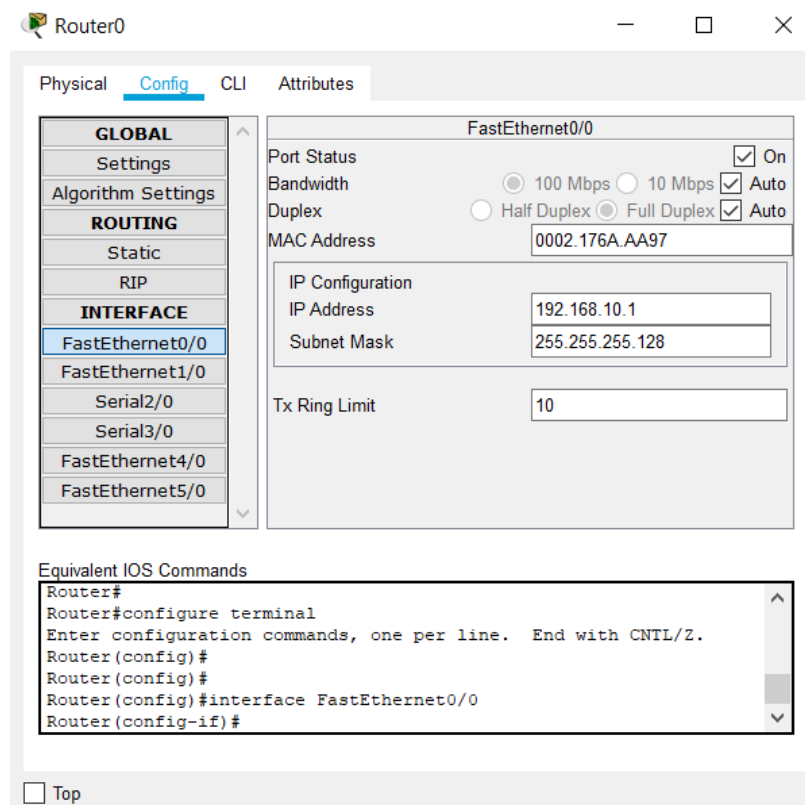
☒ Static

IPv6 Address

Link Local Address FE80::2D0:BCFF:FE27:2A76

☐ Top

Router0: FastEthernet0/0



Router0

Physical **Config** CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

INTERFACE

- FastEthernet0/0
- FastEthernet1/0
- Serial2/0
- Serial3/0
- FastEthernet4/0
- FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0002.176A.AA97

IP Configuration

IP Address 192.168.10.1

Subnet Mask 255.255.255.128

Tx Ring Limit 10

Equivalent IOS Commands

```
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

☐ Top

Router0: Serial2/0

Router0

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial2/0

Port Status ☒ On

Duplex ☐ Full Duplex

Clock Rate 64000

IP Configuration

IP Address 192.168.20.1

Subnet Mask 255.255.255.128

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config)#
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
```

☐ Top

Router0: Static

Router0

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.10.128/25 via 192.168.20.2

Remove

Equivalent IOS Commands

```
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
```

☐ Top