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Date: 03-03-2022

Registration Number: 20BPS1022

LAB-07

CISCO Packet Tracer

Aim: To design different types of topologies in CISCO Packet Tracer and transfer data through the end devices as directed.

1.) Bus Topology

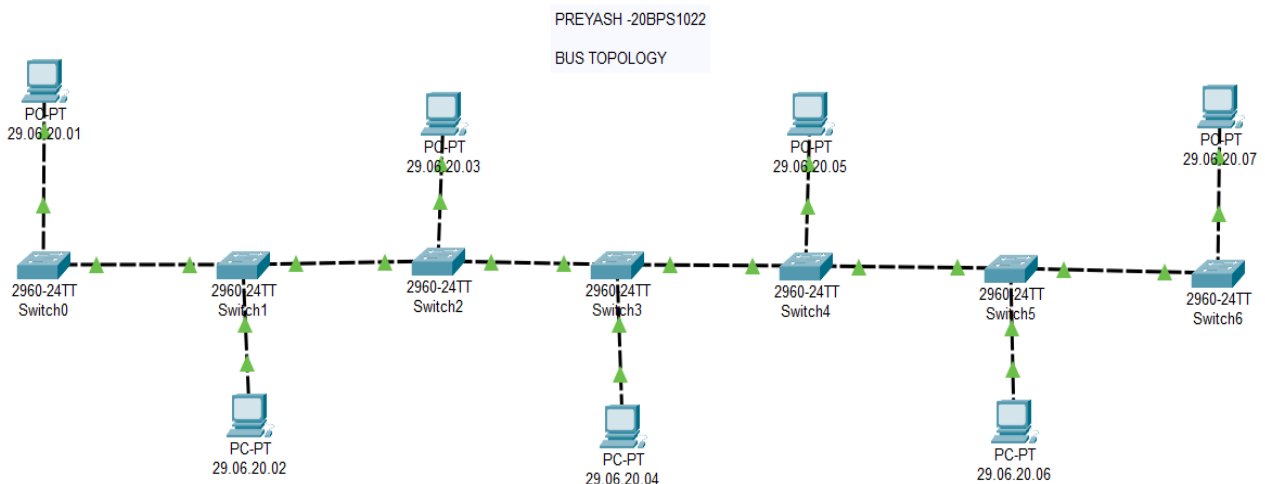
Designing:

PC2-> PC3

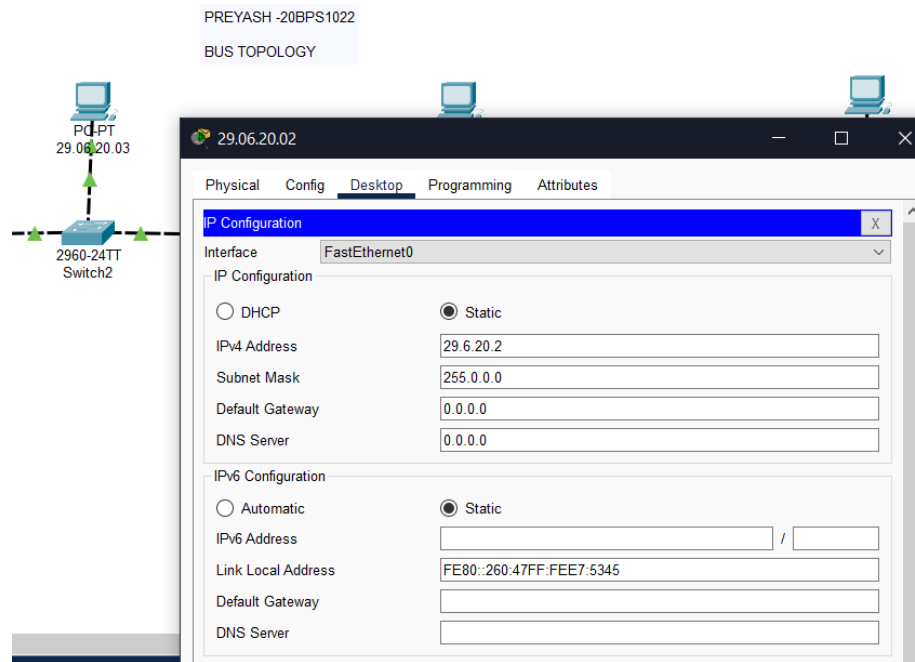
I.P. Address:

PC2: 29.06.20.02

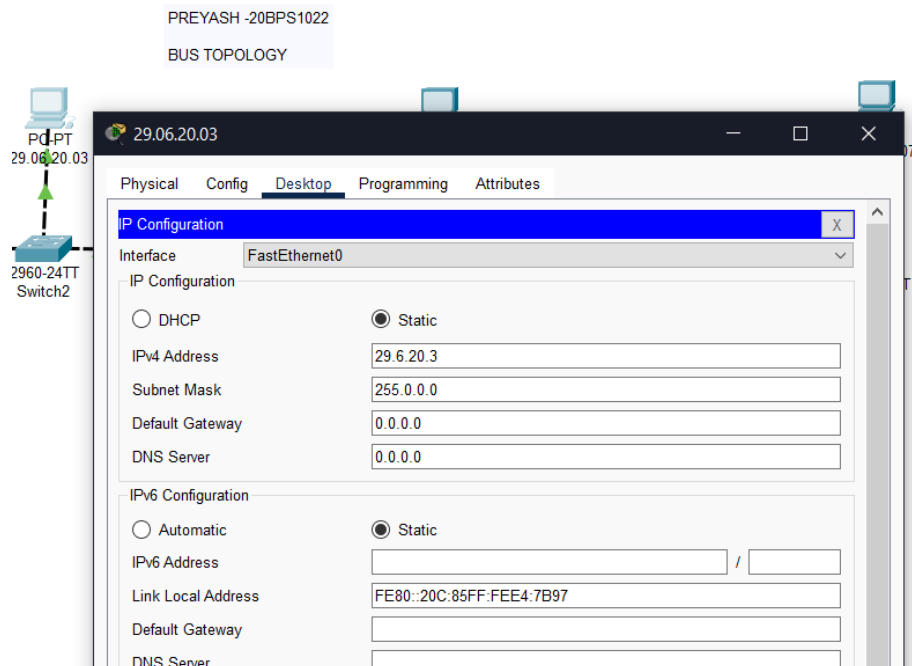
PC3: 29.06.20.03



Source:

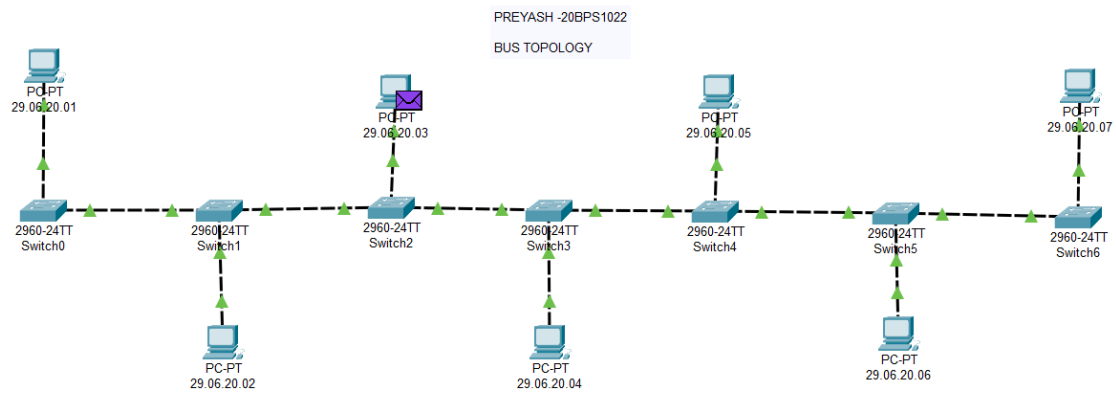


Destination:



Success:

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	29.06.20.02	29.06.20.03	ICMP		0.000	N	0	(edit)	



CONTROLS

Scenario 0

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic
	In Progress	29.06.20.02	29.06.20.03	ICMP		0.000	

2.) Star Topology

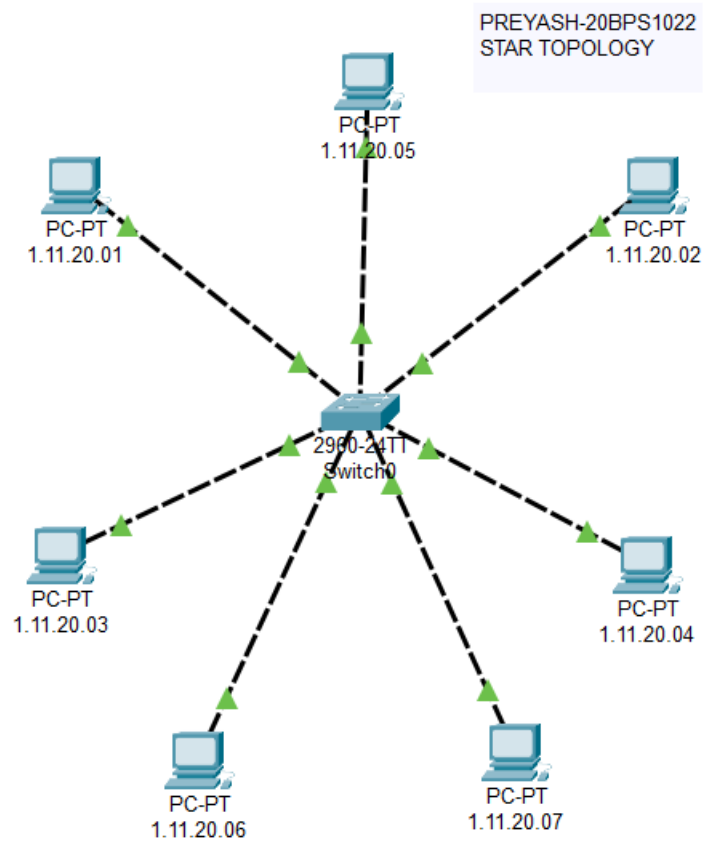
Designing:

PC0-> PC5

I.P. Address:

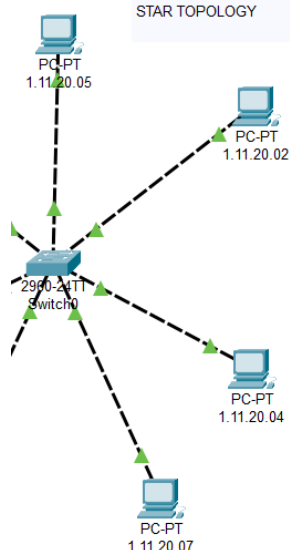
PC0: 1.11.20.01

PC5: 1.11.20.06



Source:

PREYASH-20BPS1022
STAR TOPOLOGY



1.11.20.01

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 1.11.20.01

Subnet Mask 255.0.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::201:97FF:FE87:5CDD

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

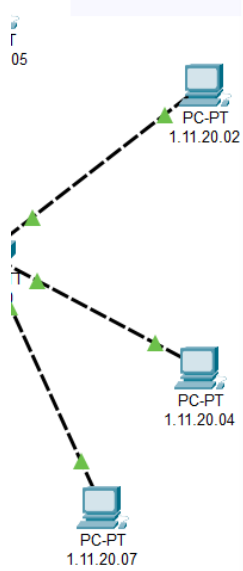
Authentication MD5

Username

Password

Destination:

PREYASH-20BPS1022
STAR TOPOLOGY



1.11.20.06

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 1.11.20.6

Subnet Mask 255.0.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::2D0:BAFF:FE01:429D

Default Gateway

DNS Server

802.1X

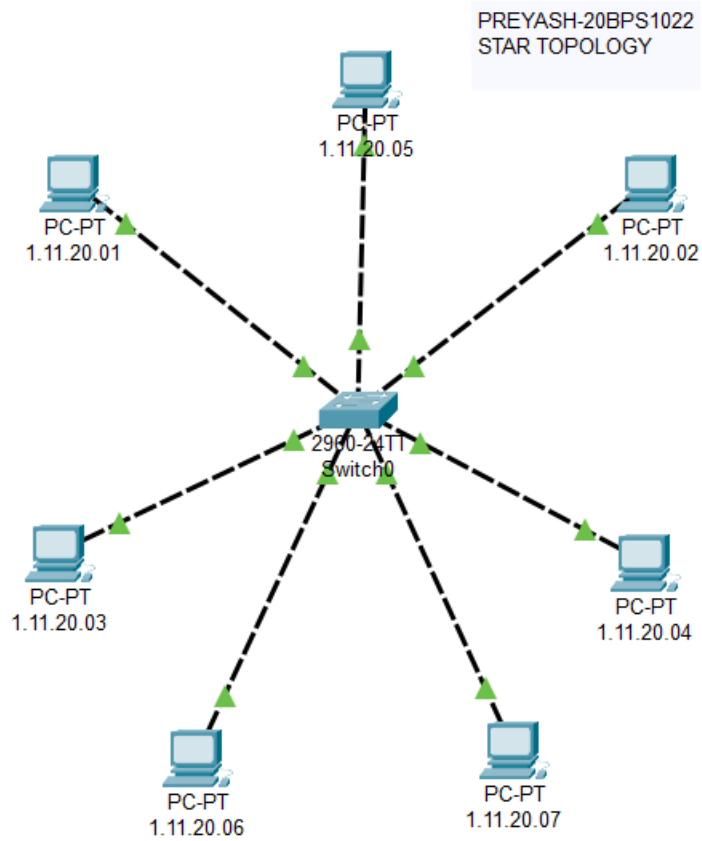
☐ Use 802.1X Security

Authentication MD5

Username

Password

Success:



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	1.11.20.01	1.11.20.06	ICMP		0.000	N	0	(edit)	

3.) Ring Topology

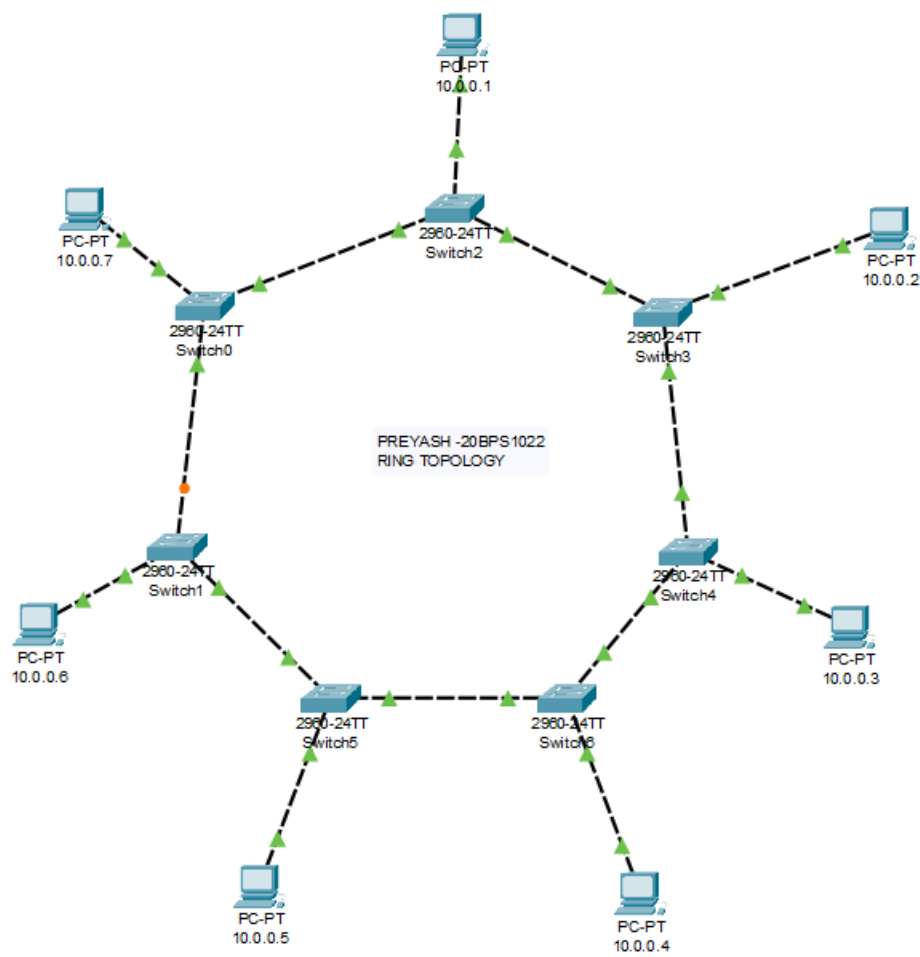
Designing:

PC6-> PC0

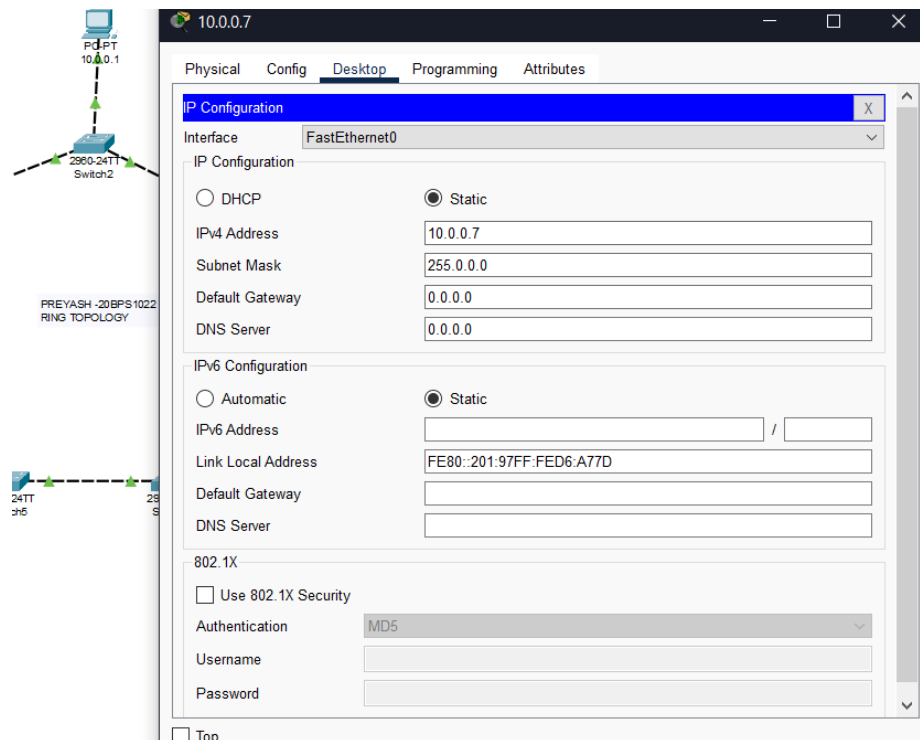
I.P. Address:

PC0: 10.0.0.1

PC6: 10.0.0.7



Source:

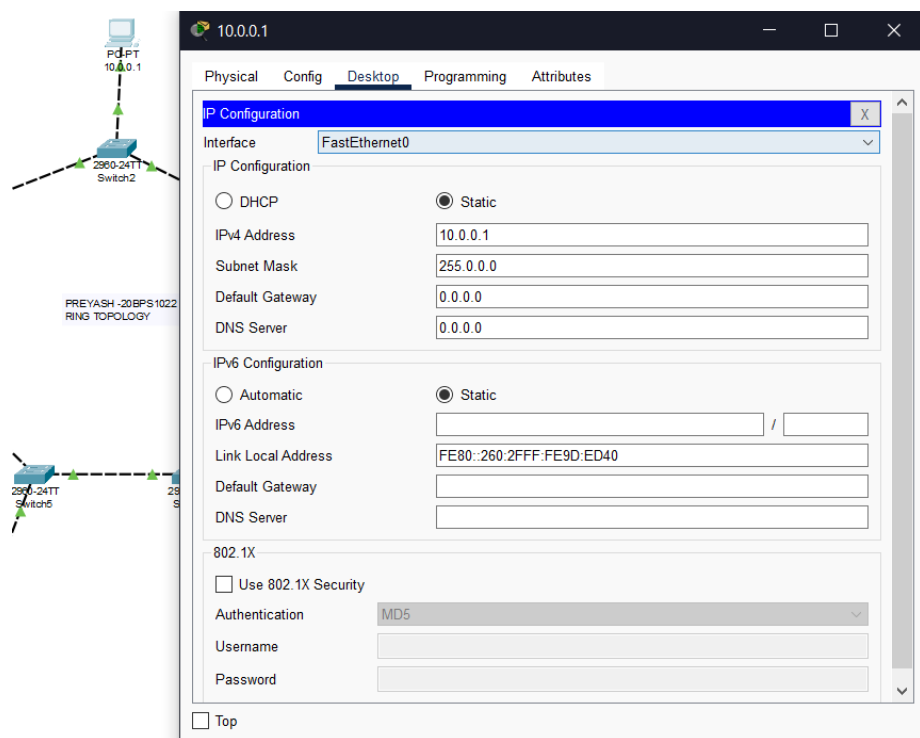


The network diagram shows a topology with a P2PT 10.0.0.1 connected to a 2960-24TT Switch2, which is connected to a 24TT 2960-24TT Switch5. The configuration window for the Source device (10.0.0.7) is shown, with the Desktop tab selected. The IP Configuration section is expanded, showing the following settings:

Interface	FastEthernet0
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	10.0.0.7
Subnet Mask	255.0.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::201:97FF:FED6:A77D
Default Gateway	
DNS Server	
802.1X	
<input type="checkbox"/> Use 802.1X Security	
Authentication	MD5
Username	
Password	

☐ Top

Destination:





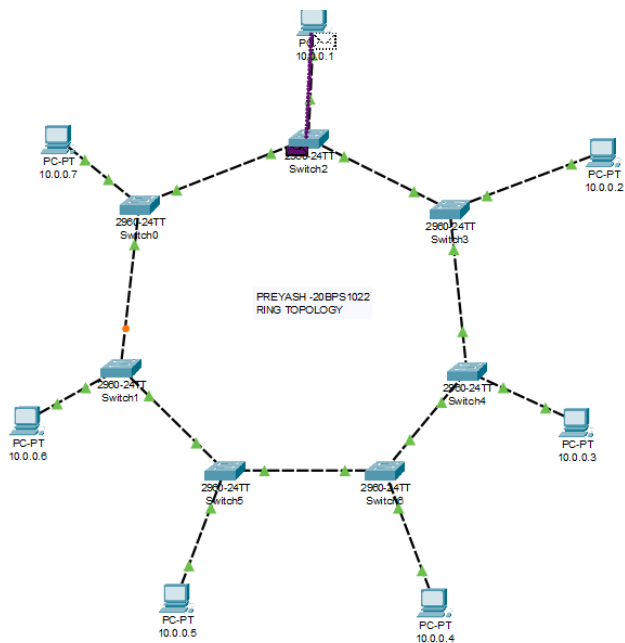
The network diagram shows the same topology as the Source device. The configuration window for the Destination device (10.0.0.1) is shown, with the Desktop tab selected. The IP Configuration section is expanded, showing the following settings:




Interface	FastEthernet0
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	10.0.0.1
Subnet Mask	255.0.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::260:2FFF:FE9D:ED40
Default Gateway	
DNS Server	
802.1X	
<input type="checkbox"/> Use 802.1X Security	
Authentication	MD5
Username	
Password	










☐ Top




Success:

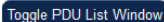
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	10.0.0.7	10.0.0.1	ICMP		0.000	N	0	(edit)	





ROLS:   

 Scenario 0  



Fire	Last Status	Source	Destination	Type	Color	Time(sec)
	In Progress	10.0.0.7	10.0.0.1	ICMP		0.000

4.) Mesh Topology

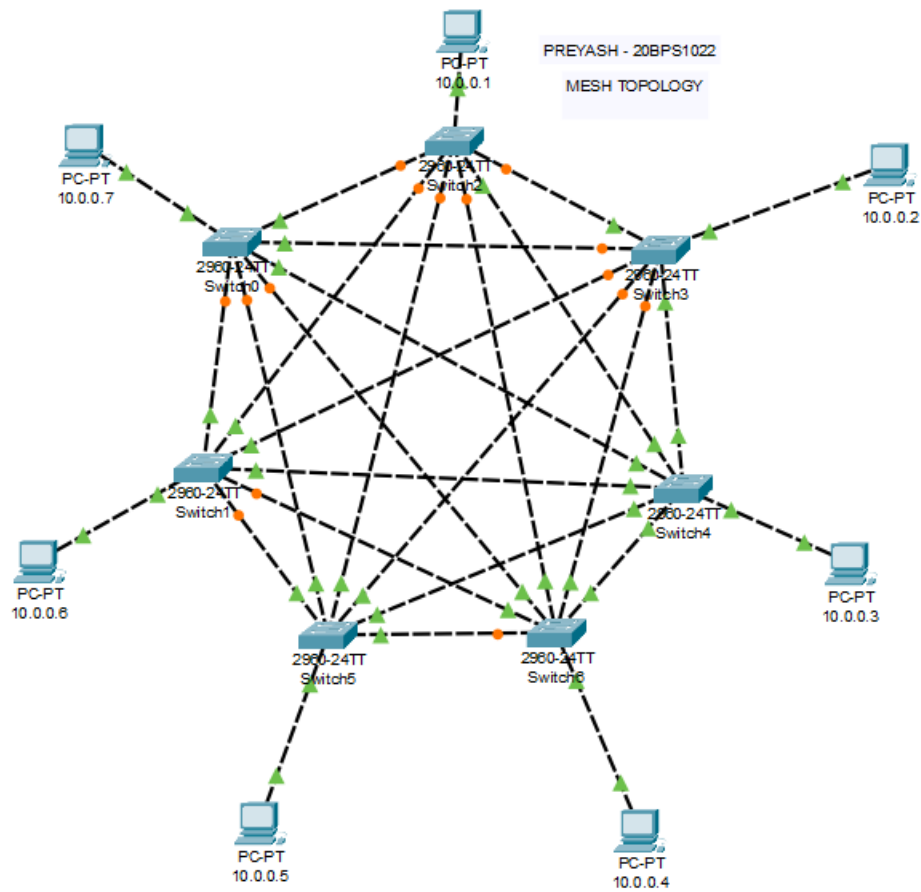
Designing:

PC1-> PC4

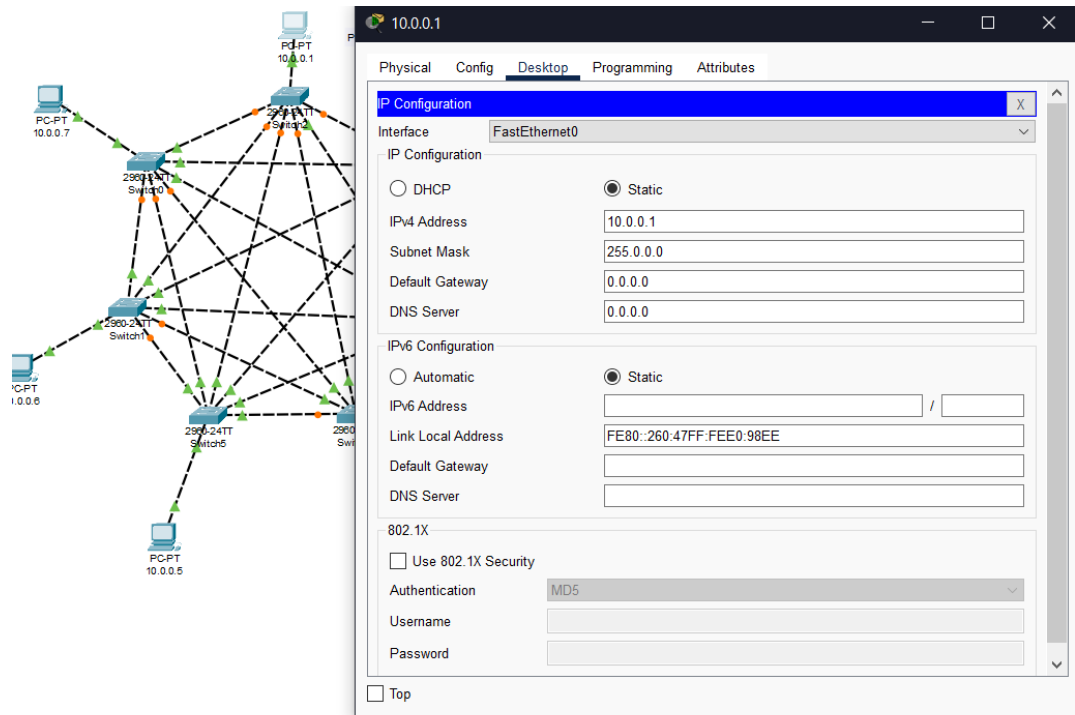
I.P. Address:

PC1: 10.0.0.1

PC4: 10.0.0.4



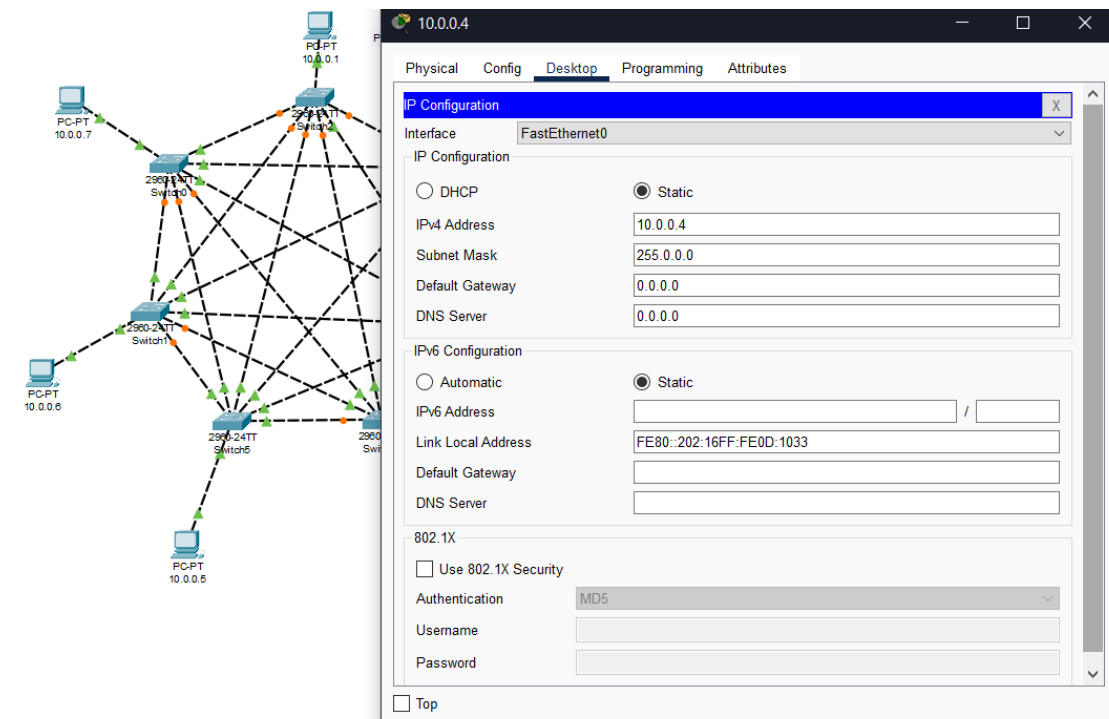
Source:



The network diagram shows a central mesh of three 2950-24TT switches (Switch0, Switch1, Switch5) connected to each other. PC-PT 10.0.0.7 is connected to Switch0, PC-PT 10.0.0.6 to Switch1, and PC-PT 10.0.0.5 to Switch5. PC-PT 10.0.0.1 is connected to Switch2, which is also connected to Switch0 and Switch1. The configuration window for PC 10.0.0.1 shows the following settings:

Section	Field	Value
IP Configuration	Interface	FastEthernet0
	IP Configuration	Static
	IPv4 Address	10.0.0.1
	Subnet Mask	255.0.0.0
	Default Gateway	0.0.0.0
IPv6 Configuration	IPv6 Configuration	Static
	IPv6 Address	
	Link Local Address	FE80::260:47FF:FE00:98EE
	Default Gateway	
	DNS Server	
802.1X	Use 802.1X Security	<input type="checkbox"/>
	Authentication	MD5
	Username	
	Password	

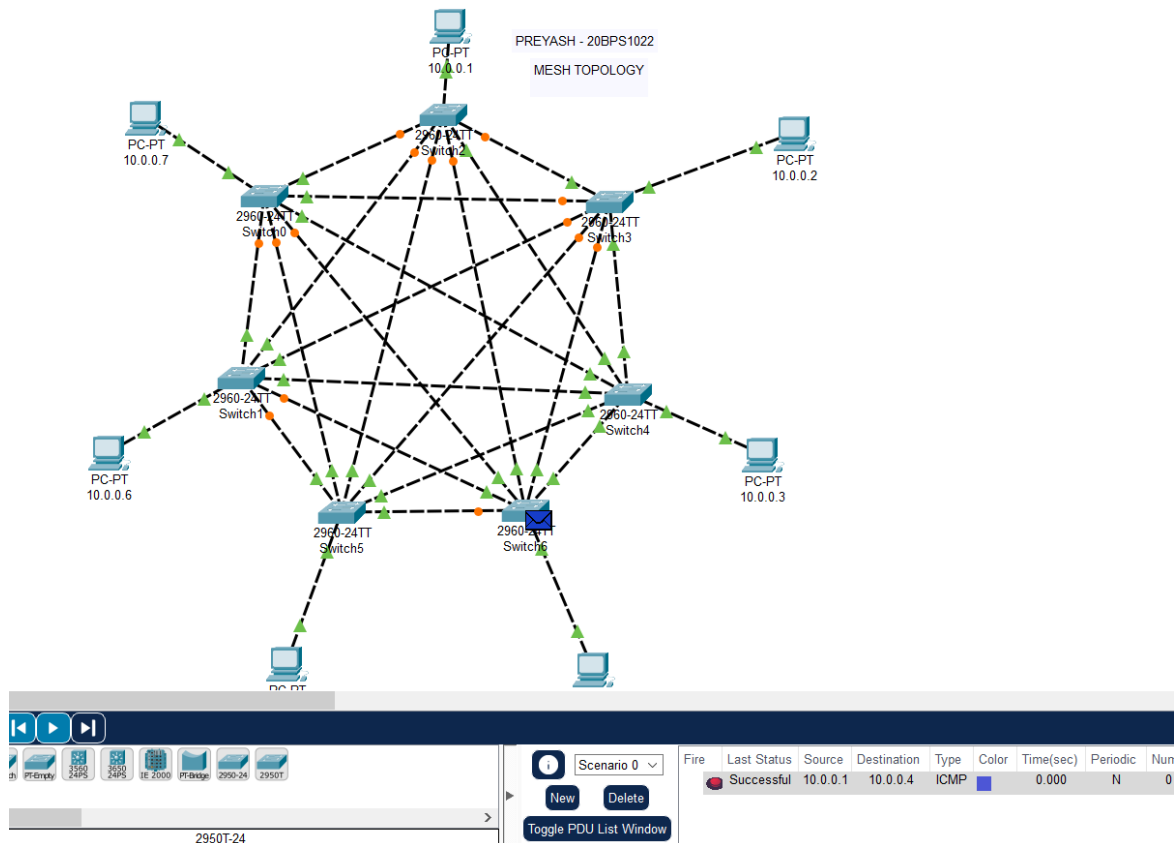
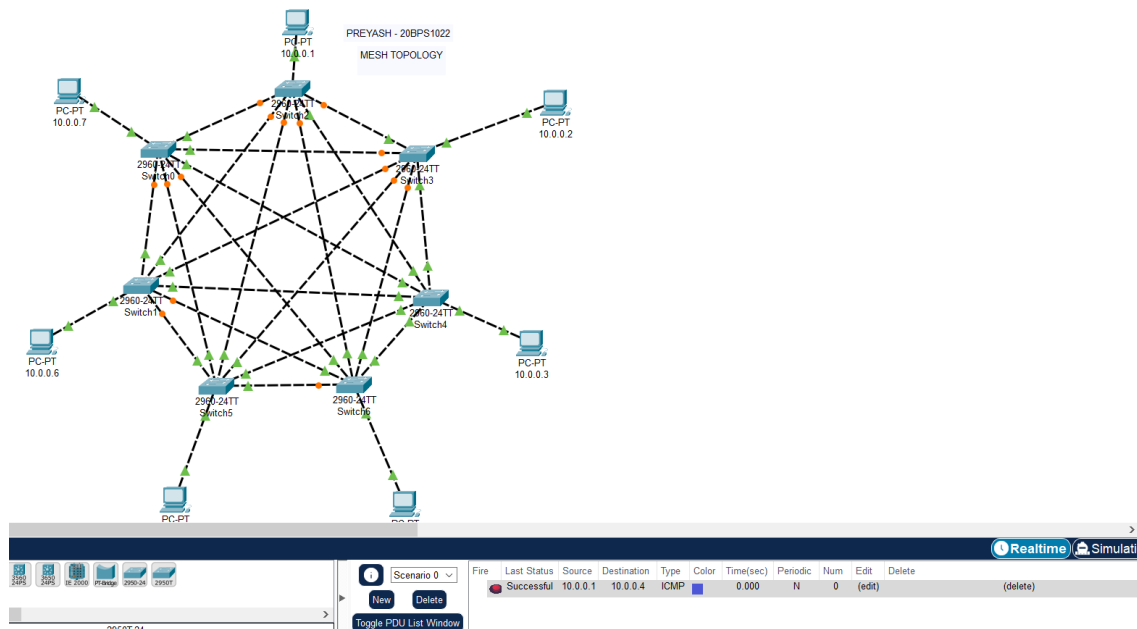
Destination:



The network diagram is identical to the one above. The configuration window for PC 10.0.0.4 shows the following settings:

Section	Field	Value
IP Configuration	Interface	FastEthernet0
	IP Configuration	Static
	IPv4 Address	10.0.0.4
	Subnet Mask	255.0.0.0
	Default Gateway	0.0.0.0
IPv6 Configuration	IPv6 Configuration	Static
	IPv6 Address	
	Link Local Address	FE80::202:16FF:FE0D:1033
	Default Gateway	
	DNS Server	
802.1X	Use 802.1X Security	<input type="checkbox"/>
	Authentication	MD5
	Username	
	Password	

Success:



Result: We successfully designed the topologies and transferred the PDUs from the source to the destination.