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Subject Name – Computer Networks
Subject Code – TMC – 203

Q2.

Problem Statement :– There are two organizations in a city named GEU and GEHU, design a network between the SOC department of GEU and GEHU. Also, show the communication between user number of GEU and user 2 number 2 of GEHU.

Objectives :– To create a LAN using switch and router within two organization.

Description :–

Router :– A router is a networking device that forwards data packets between computer networks. Router performs the traffic directing functions on the internet.
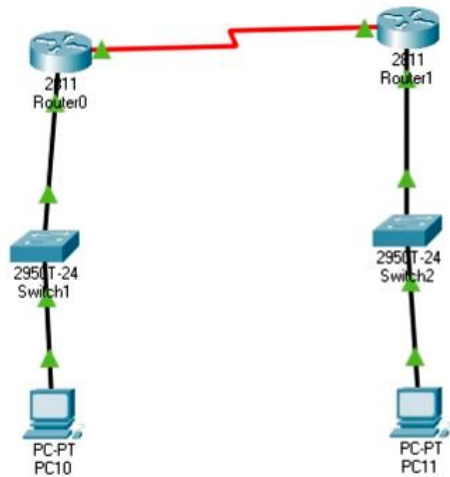
Saumya

Step 1 – Create a network using two pcs, switches, routers and cables.

Step 2 – Provide IP's to pcs by DHCP in ipconfig option.

Step 3 – Add serial port to router and give ips to fastethernet and serial port then on the status.

Step 4 – Show the connection b/w two pcs by UDP ping command.

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PC10   — □ ✕

Physical   Config   Desktop   Programming   Attributes

IP Configuration   ✕

Interface   FastEthernet0 ⌄

IP Configuration

⦿ DHCP   ○ Static   DHCP failed. APIPA is being used.

IPv4 Address   169.254.204.23

Subnet Mask   255.255.0.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

IPv6 Configuration

○ Automatic   ⦿ Static

IPv6 Address   _____ / ____

Link Local Address   FE80::290:CFF:FE5E:CC17

Default Gateway

DNS Server

802.1X

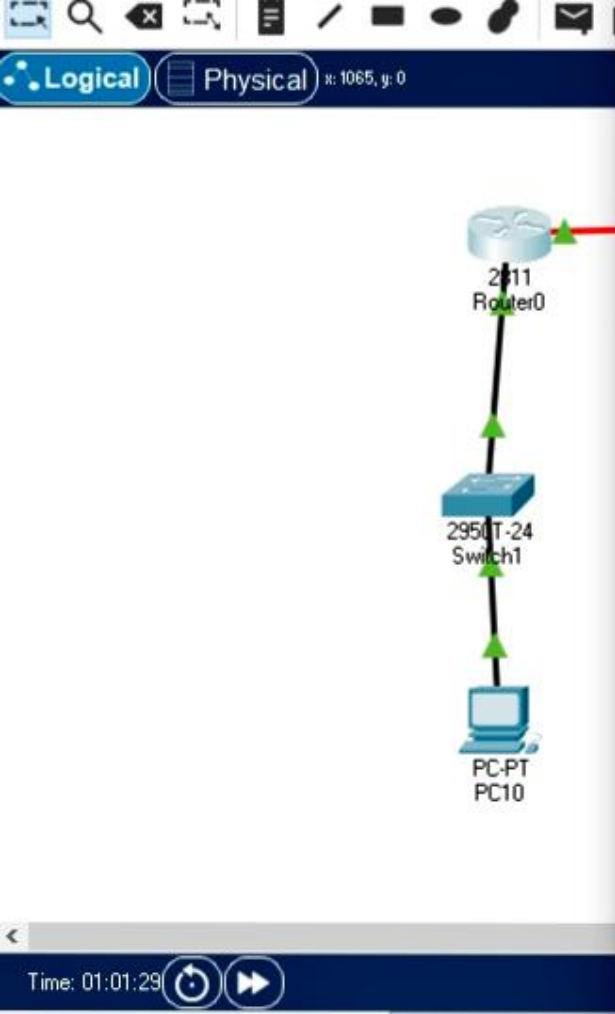☐ Use 802.1X Security

Authentication   MD5 ⌄

Username

Password

Zoom In | Original Size | Zoom Out

NM-1E
NM-1E2W
NM-1FE-FX
NM-1FE-TX
NM-1FE2W
NM-2E2W
NM-2FE2W
NM-2W
NM-4A/S
NM-4E
NM-8A/S
NM-8AM
NM-Cover
NM-ESW-161
HWIC-1GE-SFP
HWIC-2T
HWIC-4ESW
HWIC-8A
HWIC-AP-AG-B
WIC-1AM
WIC-1ENET
WIC-1T
WIC-2AM

2811
Router0

2950T-24
Switch1

PC-PT
PC10

COMPACT FLASH
REMOVE DURING NETWORK OPERATION

OPTIONAL RPS INPUT
12V ⎓ 11A

Customize Icon in Physical View

Customize Icon in Logical View

The NM-1E features a single Ethernet port that can connect a LAN backbone which can also support either six PRI connections to aggregate ISDN lines, or 24 synchronous/asynchronous ports.

GLOBAL
Settings
Algorithm Settings

ROUTING
Static
RIP

SWITCHING
VLAN Database

INTERFACE
FastEthernet0/0
FastEthernet0/1
Serial0/2/0
Serial0/2/1

Port Status ☑ On

Duplex ◉ Full Duplex
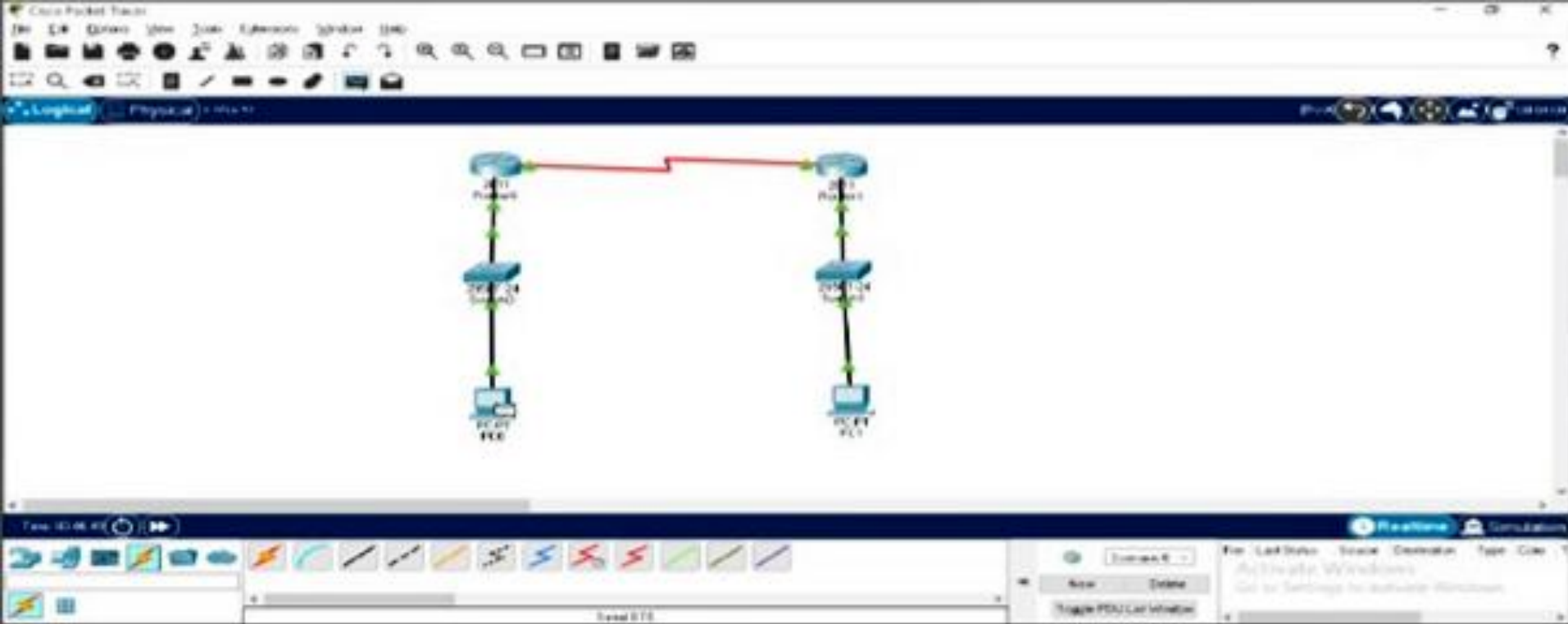
Clock Rate 1200

IP Configuration

IPv4 Address 10.0.0.1

Subnet Mask 255.0.0.0

Tx Ring Limit 10

2811
Router0

2950T-24
Switch1

PC-PT
PC10

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface FastEthernet0/1
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
no ip address
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial0/2/0
Router(config-if)#
```

Time: 01:01:29

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
◄	Successful	PC0	Router0	ICMP		0.000	N	0	[edit]	[delete]
◖	Successful	PC1	Router1	ICMP		0.000	N	1	[edit]	[delete]

Scenario 0 ∨

New   Delete

Toggle PDU List Window