

Ques ① Network between HR dept & to user of fire department.

⇒ Steps :-

So we will take 2 routers as R1 and R2 connected to switches via automatically connection wise.

each switch is connected to 5 PC's (PC0-PC4) and also via automatic connection wise.

we will set IP address of all PC's and will go to Router and follow these steps:-

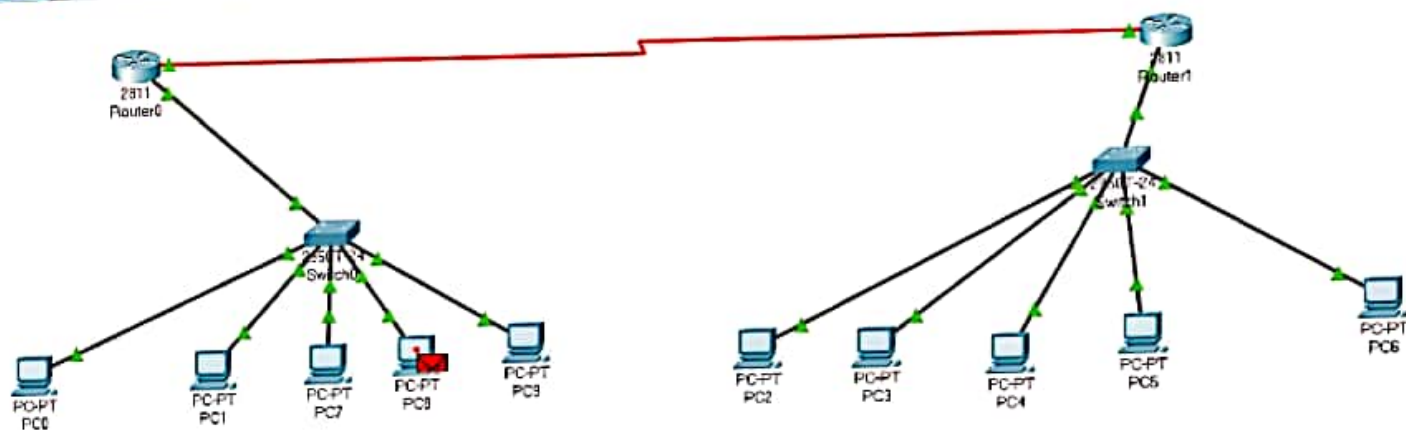
turn off > place WIC-1T in physical device's view > and then turn on.

this will established the connection from router to switches.

Now we have to check connection so we will send message from user 1 to user 2, 3, 4 - - so on. if the PDU window shows connected that means connection is established and network is build.



Logical Physical x 1300, y 470



Simulation Panel

Event List

Via	Time(sec)	Last Device	At Device
	3.836	Switch1	PC5
	3.836	Switch1	PC5
	3.836	Switch1	Router1
	3.836	Switch1	PC4
	4.020	-	Switch0
	4.021	Switch0	PC0
	4.021	Switch0	PC1
	4.021	Switch0	Router0
	4.021	Switch0	PC7
	4.021	Switch0	PC8
	4.021	Switch0	PC9
	4.184	-	Switch0
	4.185	Switch0	PC9

Reset Simulation

☒ Constant Delay

Captured to 4185

Play Controls



Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSFP, OSFPv6, PAgP, PCP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USD, VTP

Edit Filters

Show All/None

Time 00:03:17.800 PLAY CONTROLS



Automatically Choose Connection Type

Scenario 0

New

Delete

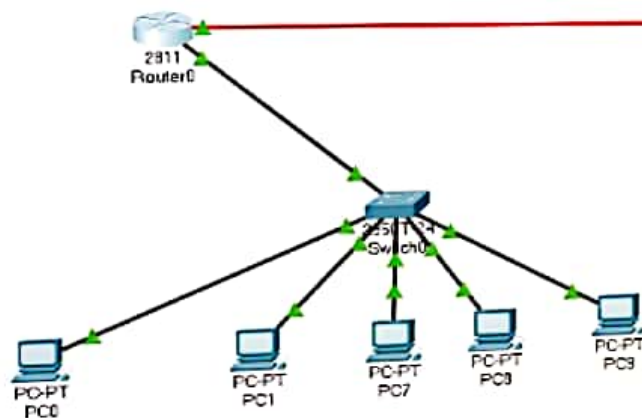
Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
------	-------------	--------	-------------	------	-------	-----------	----------	-----	------	--------

Successful		PC1	PC5	ICMP		0.000	N	0	(edit)	(delete)
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Logical Physical x 590, y: 151



Router0

Physical Config CU Attributes

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- SWITCHING**
- VLAN Database
- INTERFACE**
- FastEthernet0/0
- FastEthernet0/1
- Serial0/0/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☒ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0002.17A7.5B01

IP Configuration

IPv4 Address 192.168.10.1

Subnet Mask 255.255.255.0

Tx Ping Limit 10

Equivalent IOS Commands

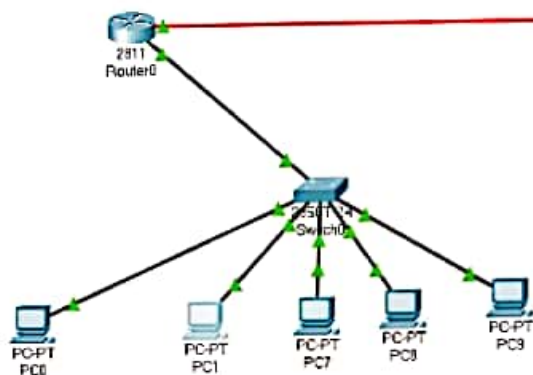
```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

☐ Top

Event List Realtime Simulation

Time Color Time(sec) Periodic Num Edit Delete (delete)

Logical Physical 491, 197



PC1

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

☐ DHCP
 ☒ Static

IPv4 Address: 192.168.10.1

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:E4FF:FE56:56C

Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

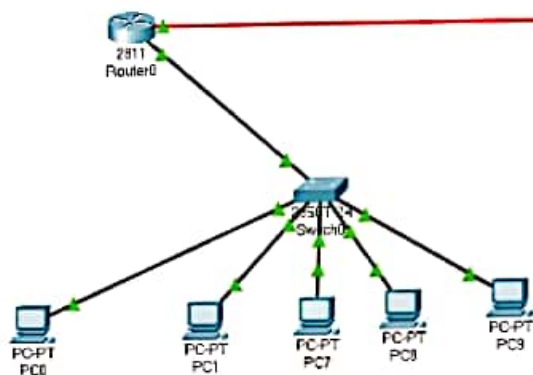
Time: 00:12:06.154 PLAY CONTROLS [Icons for play, pause, stop, etc.]

Event List Realtime Simulation

[Icons for various tools and functions]
 Automatically Choose Connection Type

Scenario 0
 New Delete
 Toggle PDU List Window

Prio	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
0	Successful	PC1	PC5	ICMP	Blue	0.003	N	0	(edit)	(delete)



PCS

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

☐ DHCP
 ☒ Static

IPv4 Address 192.168.20.5

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 FE80:206:2AFF:FE0B:5B7D

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

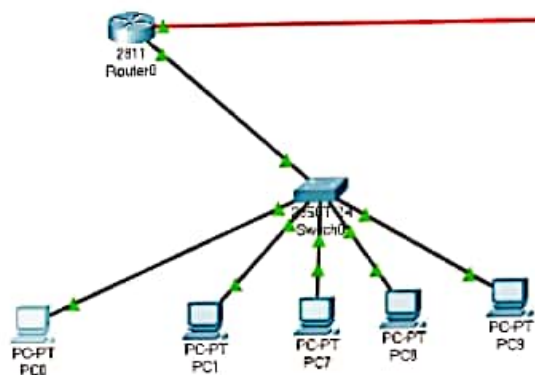
Authentication MD5

Username

Password

☐ Top

Logical Physical x 509, y 354



PC0

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

☐ DHCP
 ☒ Static

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 FE80:20D:B0FF:FE95:AE35

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

Time 00:12:06:154 PLAY CONTROLS [Icons for play, pause, stop, etc.]

Event List Realtime Simulation



Scenario 0

New Delete

Toggle PDU List Window

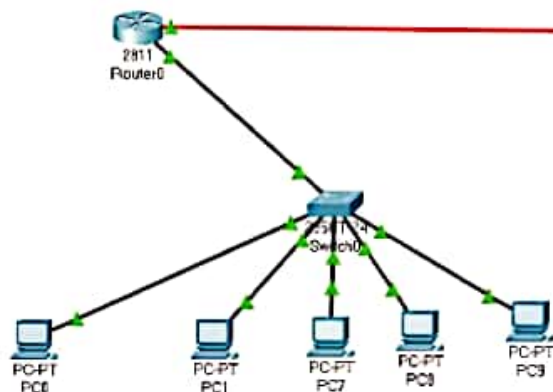
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC1	PC5	ICMP		0.003	N	0	(edit)	(delete)

Automatically Choose Connection Type



Logical Physical c 1341, y 333

[Pool] 11.04



Router1

Physical Config CU Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial0/0/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☒ 10 Mbps ☒ Auto

Duplex ☒ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000B BE01 CE01

IP Configuration

IPv4 Address 192.168.20.1

Subnet Mask 255.255.255.0

Tx Ring Limit 16

Equivalent IOS Commands

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

☐ Top

Time: 00:12:06.154 PLAY CONTROLS



Automatically Choose Connection Type

Scenario 0

New Delete

Toggle PDU List Window

File	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC1	PC5	ICMP			0.000	N	0	(edit)	(delete)

Event List Realtime Simulation

Ques 2 Network between SOC Dept of GEU & GEHU.

⇒ Steps:

1st we take a router and along with that we attached two switches (consider GEU & GEHU) with automatically connection wise then we add 8 PCs 4 each on both switches. (you can use as much as you can).

All PC's are connected to switch 1 and switch 2 by same wise.

then we will give IP address to all PC's as shown in screenshots. when they all are connected to each other, then we will check connection via simulation mode.

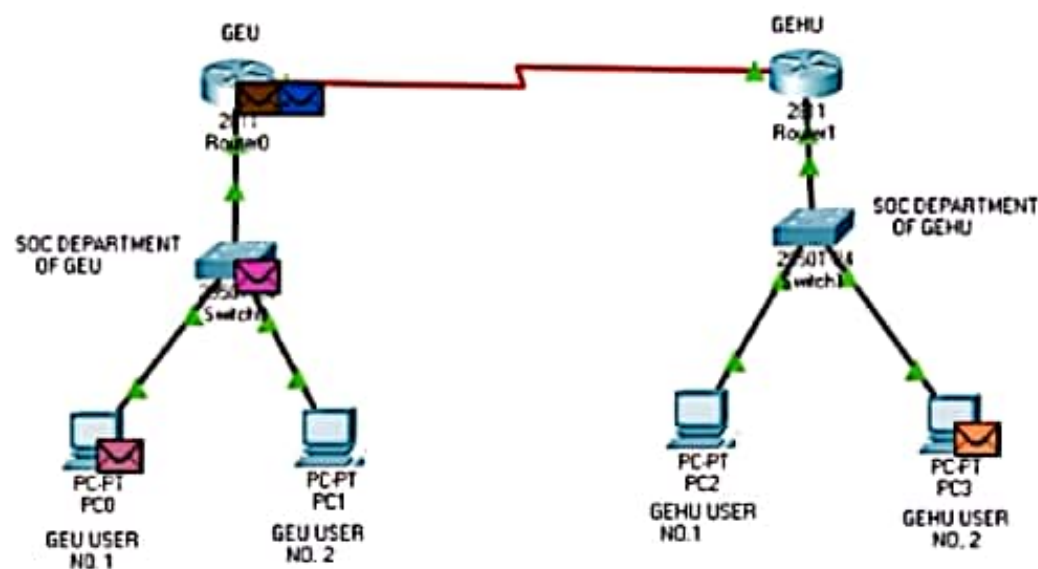
If the PDU list window display successful it means connection has been established and network is build between them.

Now the network is ready to perform any data transfer.

So as per question we can communicate between user 1 of GEU to user 2 of GEHU, user 3 of GEU to user 1 of GEHU and so on.



Logical Physical 12719 423



Time: 35:57:16.257 PLAY CONTROLS



Router-PT Empty

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edt
	In Progress	PC0	Router0	ICMP		0.000	N	0	(edit)
	Successful	Router0	Router1	ICMP		0.000	N	1	(edit)
	In Progress	Router1	PC3	ICMP		0.000	N	2	(edit)

Simulation Panel

Event List

Vis	Time(sec)	Last Device	All Devs
	0.002	Switch0	Router0
	0.002	Router1	Router0
	0.002	Switch1	PC3
	0.002	-	PC0

Reset Simulation ☒ Constant Delay Captured to 0.002 s

Play Controls



Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT, TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TFTP, Telnet, UDP, USB, VTP

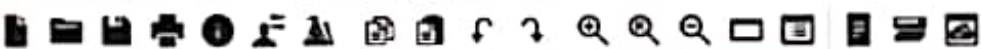
Edit Filters

Show All/None

Event List Realtime Simulation

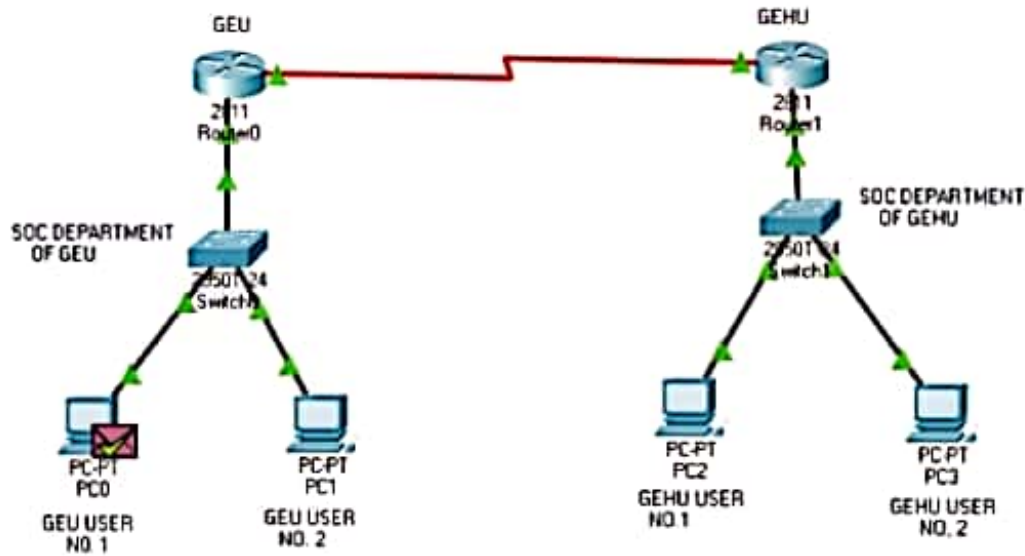
Cisco Packet Tracer - C:\Users\LENOVO\Downloads\SOL-ORGANIZATION.pkt

File Edit Options View Tools Extensions Window Help



Logical Physical 127/423

[Root] 09:23:00



Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device
	0.009	Switch1	Router1
	0.010	Router1	Router0
	0.011	Router0	Switch0
<input checked="" type="checkbox"/>	0.012	Switch0	PC0

Reset Simulation ☒ Constant Delay Captured to 0.012

Play Controls



Event List Filters - Visible Events

ACL, Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT, TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 35:57:16.277 PLAY CONTROLS

Event List Realtime Simulation

4331 4321 1941 2901 2911 81910K 81910M 828 1240 PTHRouter PTHEmpty 184

Router/PT Empty

Scenario 0

New Delete

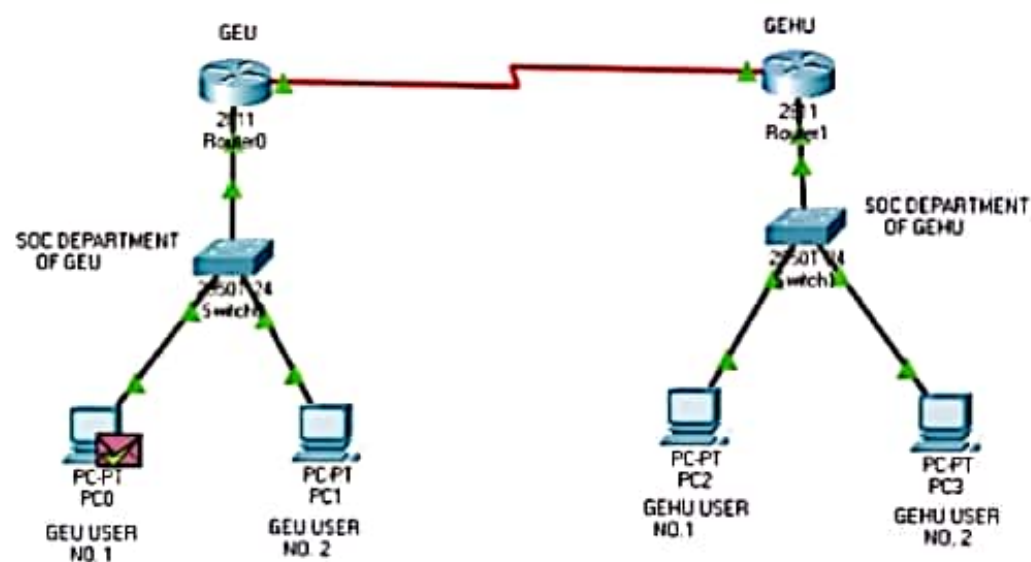
Toggle PDU List Window

Free	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edr
<input checked="" type="checkbox"/>	Successful	PC0	Router0	ICMP		0.000	N	0	(edit)
<input checked="" type="checkbox"/>	Successful	Router0	Router1	ICMP		0.000	N	1	(edit)
<input checked="" type="checkbox"/>	Successful	Router1	PC3	ICMP		0.000	N	2	(edit)



Logical Physical 1278 y 423

[Root] 09:23:00



Simulation Panel

Event List

Vis	Time(sec)	Last Device	All Devs
	0.009	Switch1	Router1
	0.010	Router1	Router0
	0.011	Router0	Switch0
	0.012	Switch0	PC0

Reset Simulation Constant Delay Captured to 0.012 s

Play Controls



Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT, TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Time: 35:57:16.277 PLAY CONTROLS



Router-PT-Empty



Scenario 0

New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edt
	Successful	PC0	Router0	ICMP		0.000	N	0	[edt]
	Successful	Router0	Router1	ICMP		0.000	N	1	[edt]
	Successful	Router1	PC3	ICMP		0.000	N	2	[edt]
	