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Roll no. → 2001020
Student id → 20711116
Course → MCA 2B
Subject → Computer Networks

Ques 2 Problem Statement → There are two organization in a city named GEU and Gehu, design a network b/w uses number of geu and number of Gehu.

Objective → We will create a virtual LAN Environment in Cisco Packet Tracer that will connect 2 uses of different departments and connection will be established as well as we can see how 2 router communicate with each other by using switch.

Steps →

Step 1 :→ We will place node first node 2 Organization named Geu and Gehu in same city.
SOC departments
User 1 and User 2 in both department →.

Step 2 :→ We will place 2 Routers (Router 0 and Router 1), we will also add 2 switch.

Alpesh

Step 3:) Connect both routers with serial DTE wire.

Step 4:) Connect both routers with normal copper wire.

Step 5:) Add 2 system or 2 users in each organizations named user no 1 and user no. 2

Step 6:) Assign IP address to all 4 system.

Step 7:) Now show communication b/w user number 2 of gehu.
IP address of Gehu user1 is:
192.168.10.2
IP address of Gehu user 2 is:
192.168.20.3.

Step 8:) Now their are 2 ways to verify the connection b/w 2 users →
1 → By pinging user by its system IP.
2 → By sending PDU packets from user 2 of Gehu.

Step 9:) We can now see both system are getting pinging throug IP of other system. and also sending PDU packets and it is also being sent to both systems.

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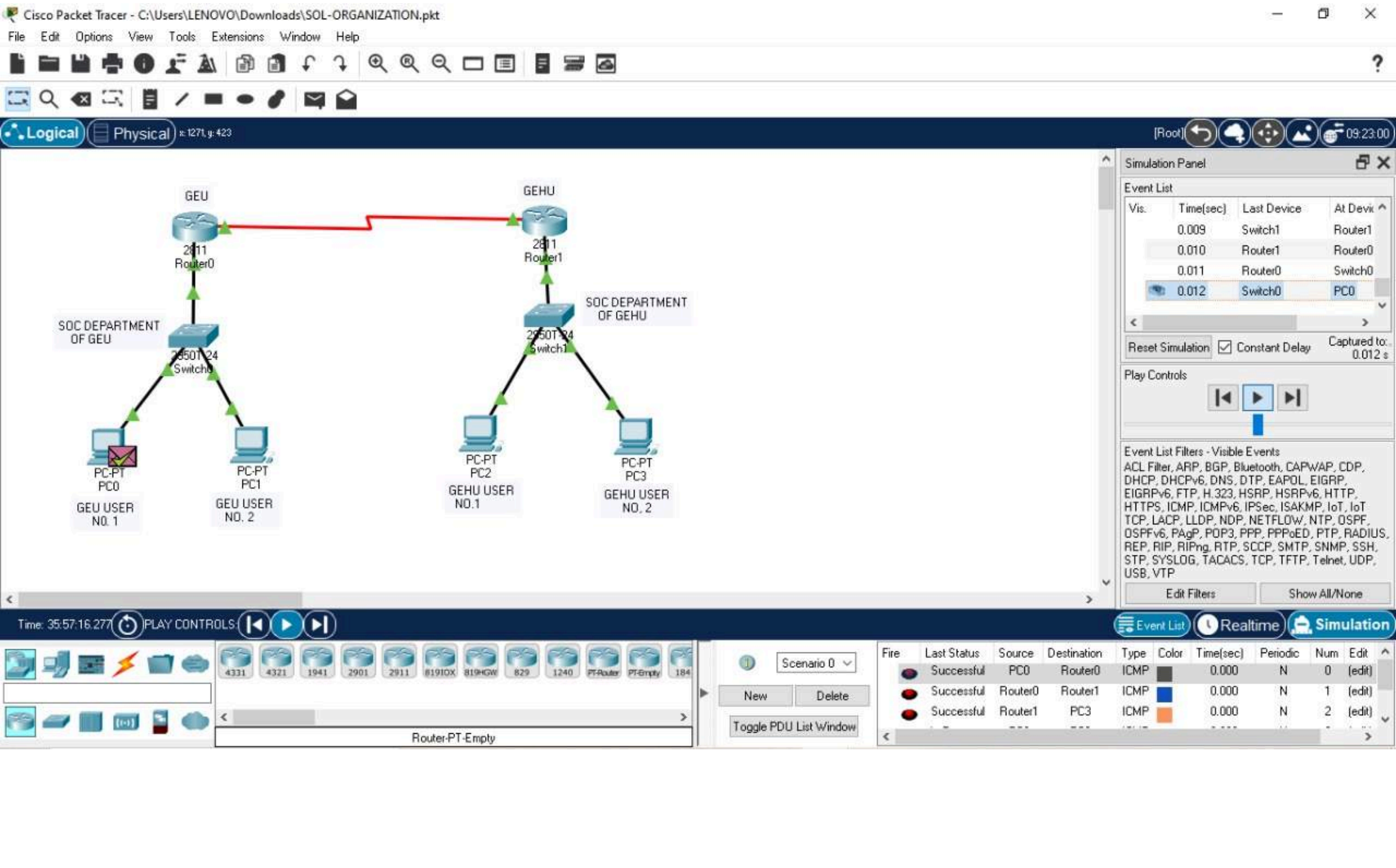
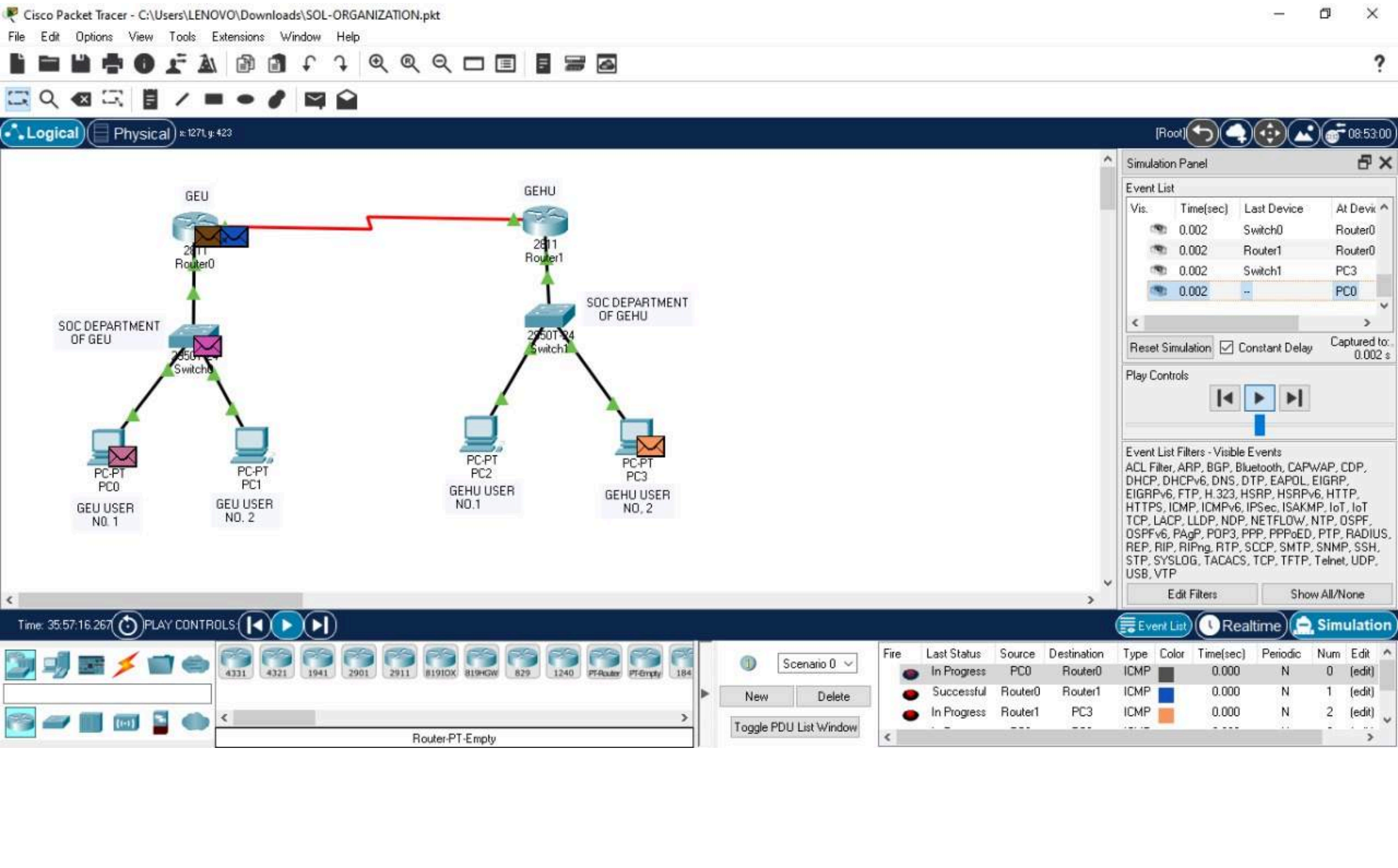
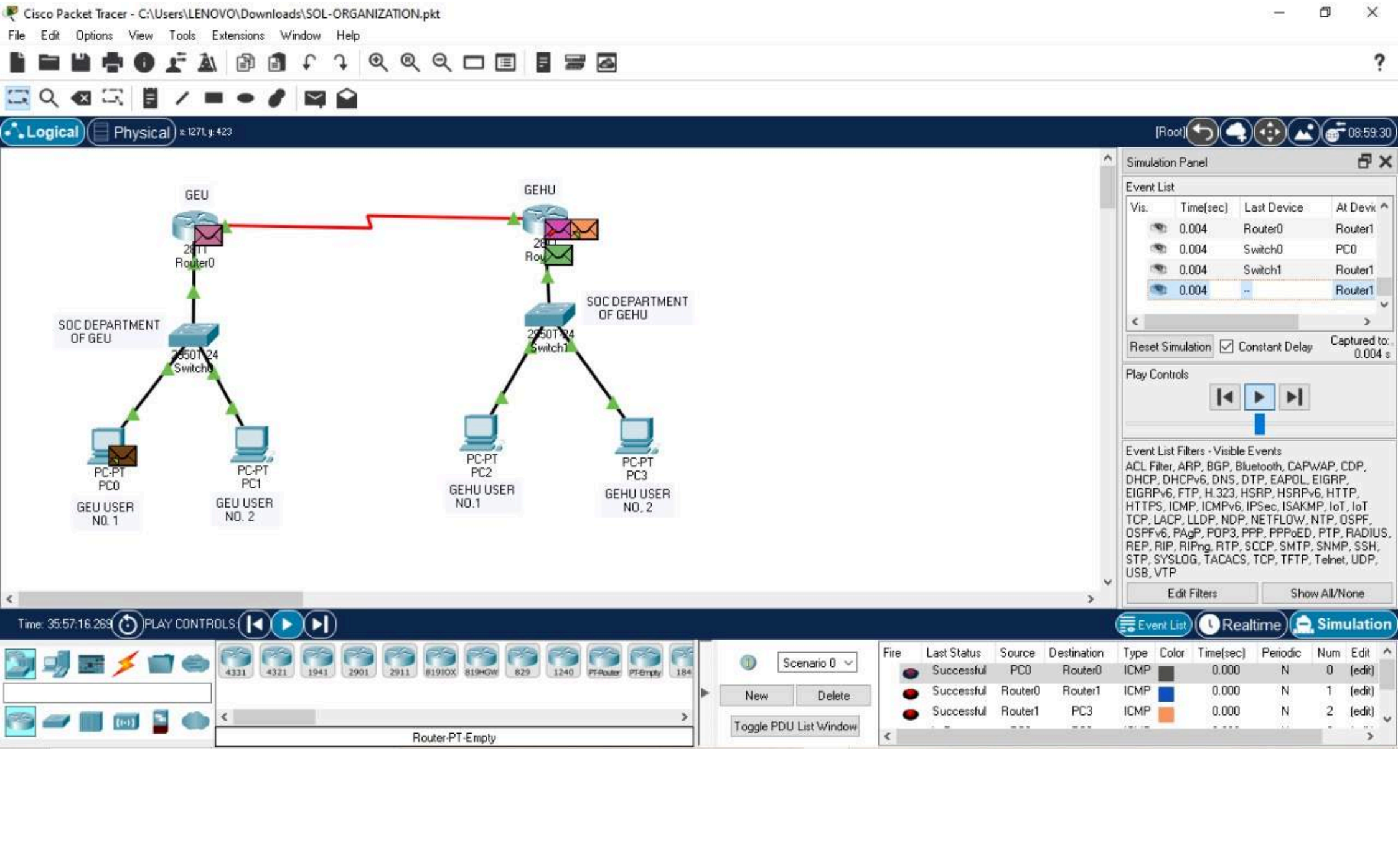
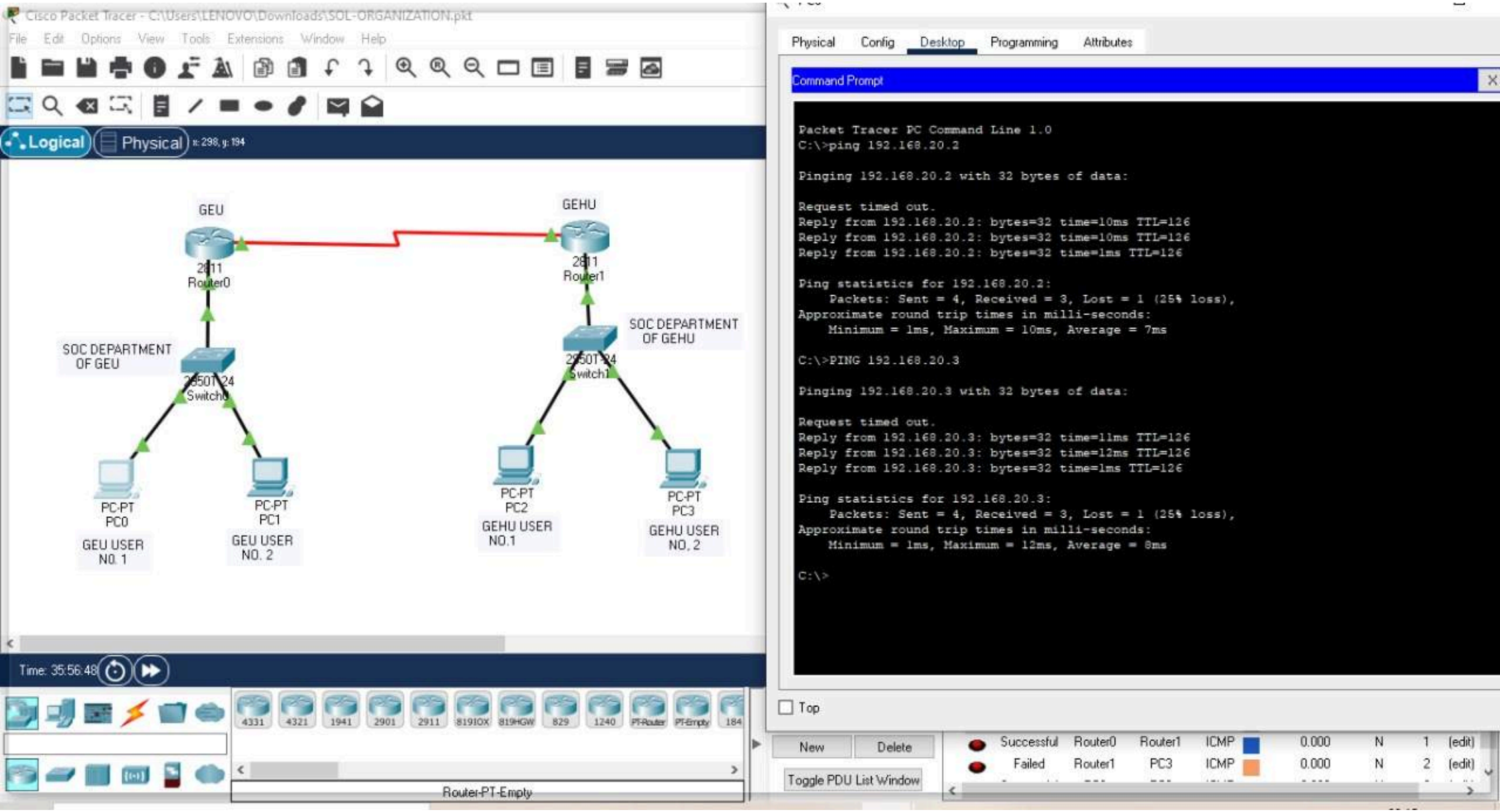
Step (10.) Hence, we are able to communicate b/w 2 user of 2 different department in same organization.

Albert


Cisco Packet Tracer - C:\Users\LENOVO\Downloads\SOL-ORGANIZATION.pkt
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1271, y: 423
[Root] 09:23:00
GEU
GEHU
2811 Router0
2811 Router1
SOC DEPARTMENT OF GEU
SOC DEPARTMENT OF GEHU
2950T-24 Switch0
2950T-24 Switch1
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
GEU USER NO. 1
GEU USER NO. 2
GEHU USER NO.1
GEHU USER NO. 2
Simulation Panel
Event List
Vis. Time(sec) Last Device At Devic
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, PPPoED, 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 819IOX 819HGW 829 1240 PT-Router PT-Empty 184
Router-PT-Empty
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit
Successful PC0 Router0 ICMP 0.000 N 0 (edit)
Successful Router0 Router1 ICMP 0.000 N 1 (edit)
Successful Router1 PC3 ICMP 0.000 N 2 (edit)


Cisco Packet Tracer - C:\Users\LENOVO\Downloads\SOL-ORGANIZATION.pkt
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1271, y: 423
[Root] 08:53:00
GEU
GEHU
2811 Router0
2811 Router1
SOC DEPARTMENT OF GEU
SOC DEPARTMENT OF GEHU
2950T-24 Switch0
2950T-24 Switch1
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
GEU USER NO. 1
GEU USER NO. 2
GEHU USER NO.1
GEHU USER NO. 2
Simulation Panel
Event List
Vis. Time(sec) Last Device At Devi
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, PPPoED, 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: 35:57:16.267
PLAY CONTROLS:
Event List
Realtime
Simulation
4331 4321 1941 2901 2911 819IOX 819HGW 829 1240 PT-Router PT-Empty 184
Router-PT-Empty
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit
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)


Cisco Packet Tracer - C:\Users\LENOVO\Downloads\SOL-ORGANIZATION.pkt
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1271, y: 423
[Root] 08:59:30
GEU
GEHU
Router0
SOC DEPARTMENT OF GEU
SOC DEPARTMENT OF GEHU
Switch0
Switch1
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
GEU USER NO. 1
GEU USER NO. 2
GEHU USER NO.1
GEHU USER NO. 2
Simulation Panel
Event List
Vis. Time(sec) Last Device At Devic
0.004 Router0 Router1
0.004 Switch0 PC0
0.004 Switch1 Router1
0.004 -- Router1
Reset Simulation
Constant Delay
Captured to: 0.004 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, PPPoED, 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: 35:57:16.269
PLAY CONTROLS:
Event List
Realtime
Simulation
4331 4321 1941 2901 2911 819IOX 819HGW 829 1240 PT-Router PT-Empty 184
Router-PT-Empty
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit
Successful PC0 Router0 ICMP 0.000 N 0 (edit)
Successful Router0 Router1 ICMP 0.000 N 1 (edit)
Successful Router1 PC3 ICMP 0.000 N 2 (edit)


Cisco Packet Tracer - C:\Users\LENOVO\Downloads\SOL-ORGANIZATION.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 298, y: 194
GEU
2811
Router0
GEHU
2811
Router1
SOC DEPARTMENT OF GEU
2950T-24
Switch0
SOC DEPARTMENT OF GEHU
2950T-24
Switch1
PC-PT
PC0
GEU USER NO. 1
PC-PT
PC1
GEU USER NO. 2
PC-PT
PC2
GEHU USER NO.1
PC-PT
PC3
GEHU USER NO. 2
Time: 35:56:48
4331
4321
1941
2901
2911
819IOX
819HGW
829
1240
PT-Router
PT-Empty
184
Router-PT-Empty
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.2
Pinging 192.168.20.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.20.2: bytes=32 time=10ms TTL=126
Reply from 192.168.20.2: bytes=32 time=10ms TTL=126
Reply from 192.168.20.2: bytes=32 time=1ms TTL=126
Ping statistics for 192.168.20.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 1ms, Maximum = 10ms, Average = 7ms
C:\>PING 192.168.20.3
Pinging 192.168.20.3 with 32 bytes of data:
Request timed out.
Reply from 192.168.20.3: bytes=32 time=11ms TTL=126
Reply from 192.168.20.3: bytes=32 time=12ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Ping statistics for 192.168.20.3:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 1ms, Maximum = 12ms, Average = 8ms
C:\>
Top
New
Delete
Toggle PDU List Window
Successful Router0 Router1 ICMP 0.000 N 1 (edit)
Failed Router1 PC3 ICMP 0.000 N 2 (edit)