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MCA 2nd sem C

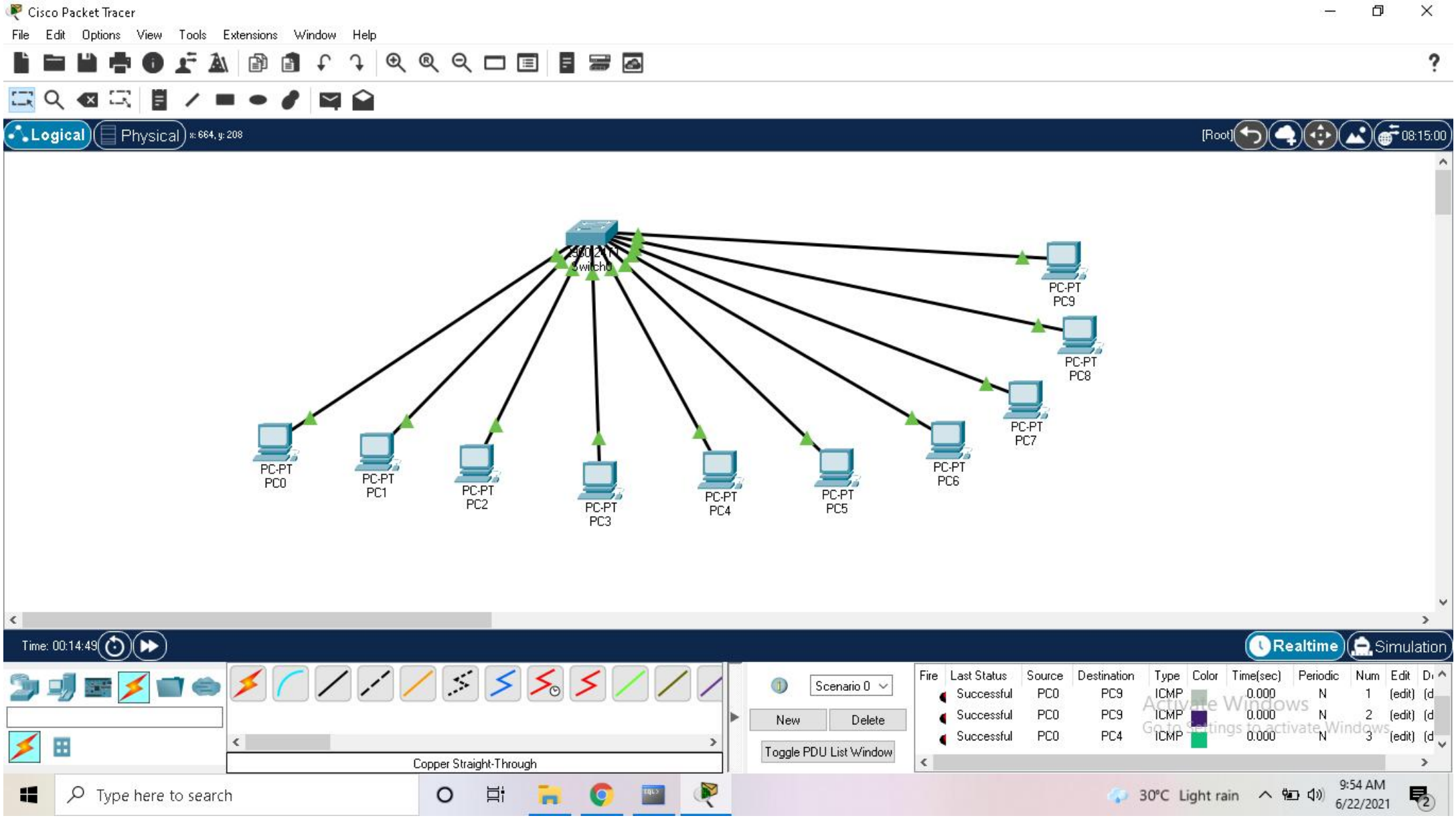
Computer Networks Practical

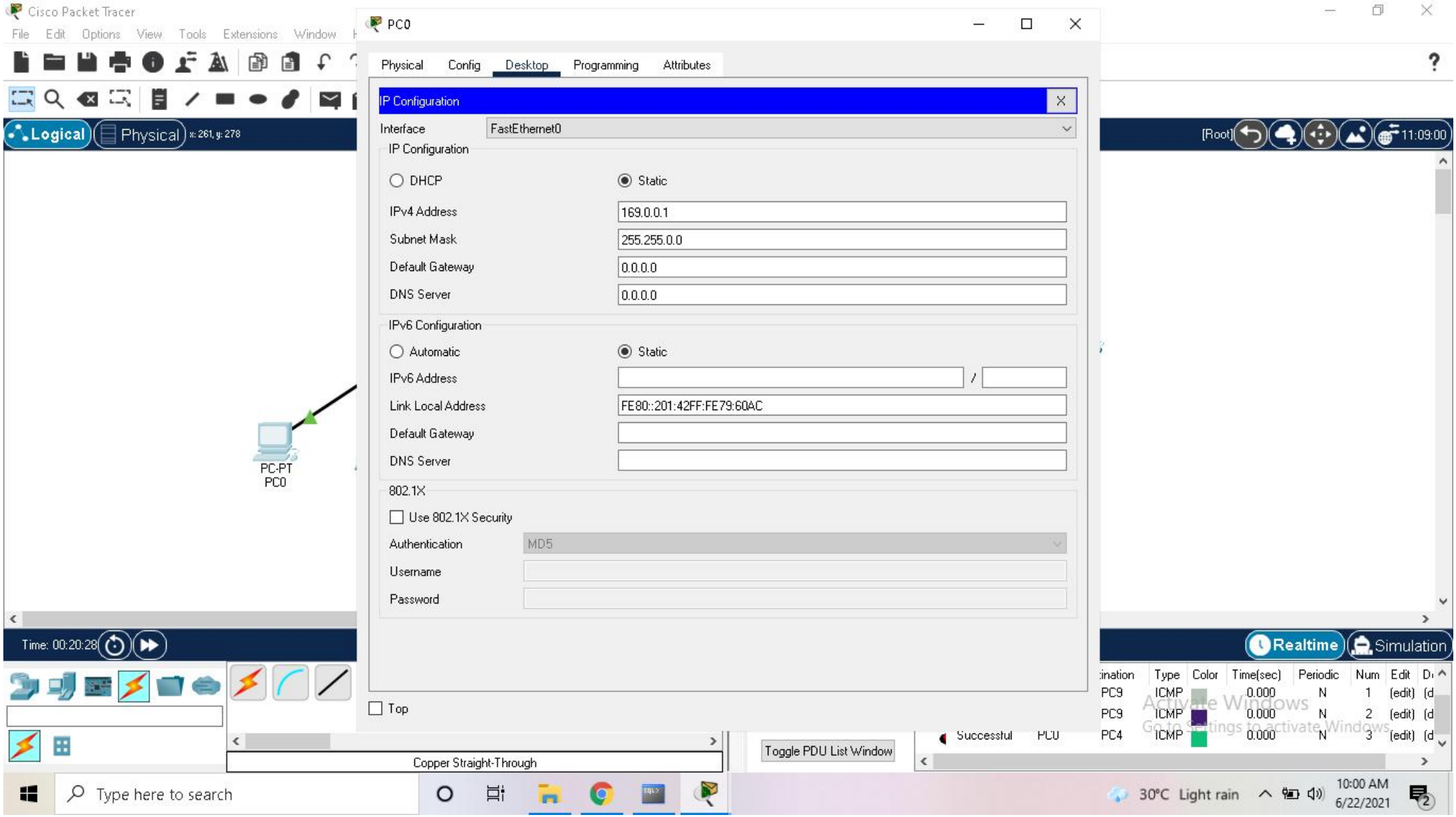
Q-1 There is an organization A with multiple departments Design a network for the HR department and the size of the department is 10 users. Also, show the communication between user number 1 and number 5 of the network

Aim Objective - The objective is to establish connection between the 10 users with the help of wires and networking devices.

Steps

1) First place 10 PC and a switch.
2) Then connect them with copper wire
3) Connect switch with PC
4) Configure the IP to all PC
5) Check the connection by dropping a packet.


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 664, y: 208
[Root]
08:15:00
Switch0
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
PC-PT PC6
PC-PT PC7
PC-PT PC8
PC-PT PC9
Time: 00:14:49
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Copper Straight-Through
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit
Successful PC0 PC9 ICMP 0.000 N 1 (edit)
Successful PC0 PC9 ICMP 0.000 N 2 (edit)
Successful PC0 PC4 ICMP 0.000 N 3 (edit)
Activate Windows
Go to Settings to activate Windows.
Type here to search
30°C Light rain
9:54 AM
6/22/2021


Cisco Packet Tracer
File Edit Options View Tools Extensions Window
Logical Physical x: 261, y: 278
[Root] 11:09:00
PC0
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 169.0.0.1
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::201:42FF:FE79:60AC
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
PC-PT
PC0
Time: 00:20:28
Realtime Simulation
Type Color Time(sec) Periodic Num Edit
PC9 ICMP 0.000 N 1 (edit)
PC9 ICMP 0.000 N 2 (edit)
PC4 ICMP 0.000 N 3 (edit)
Successful PC0
Toggle PDU List Window
Copper Straight-Through
Activate Windows
Go to Settings to activate Windows.
Type here to search
30°C Light rain
10:00 AM
6/22/2021

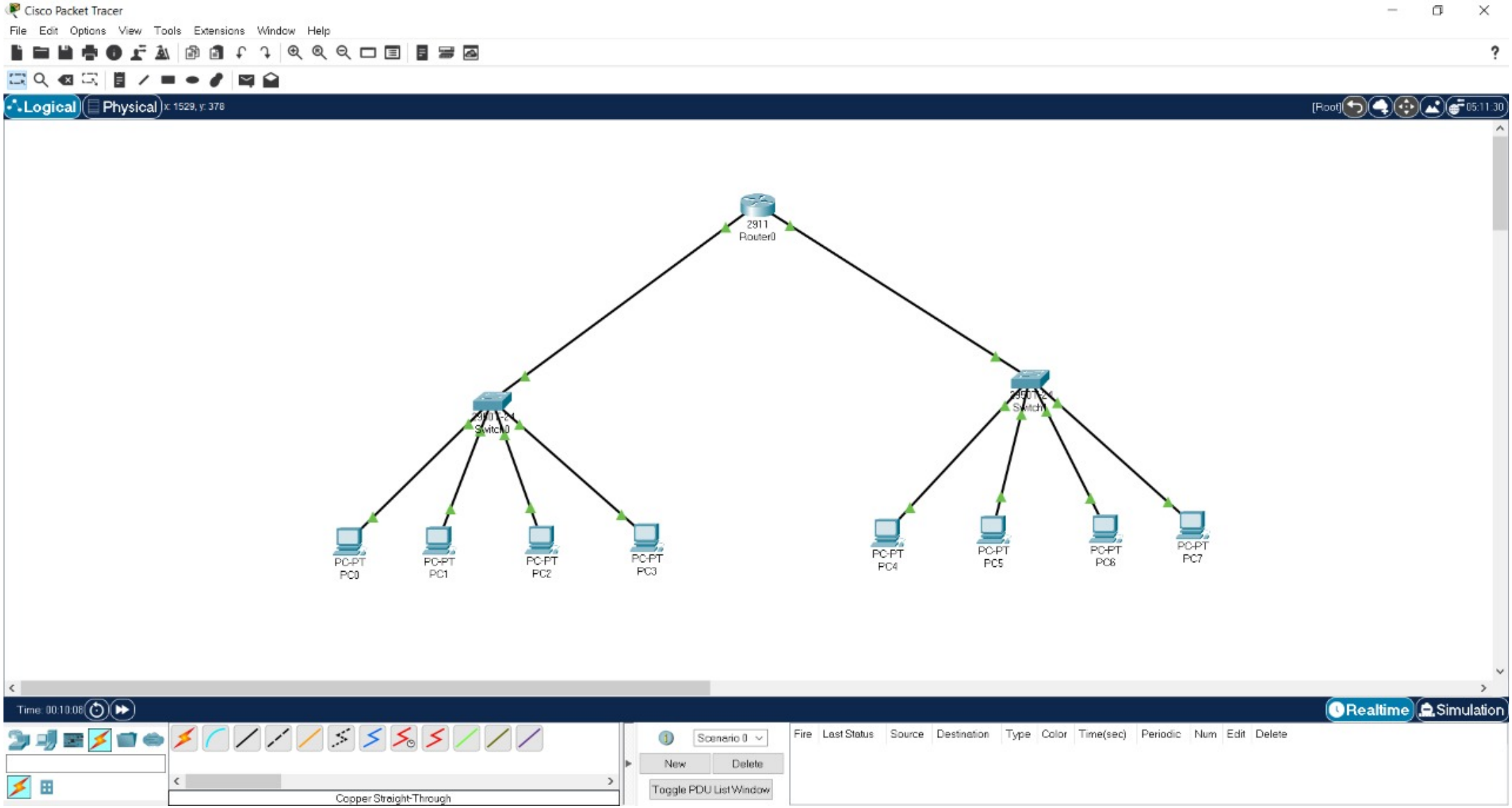
Q-2. There are two organizations in a city named GEU and GEHU, design a network between the SOC department of GEU and GEHU. Also show the communication between user number 1 of GEU and user number 2 of GEHU.

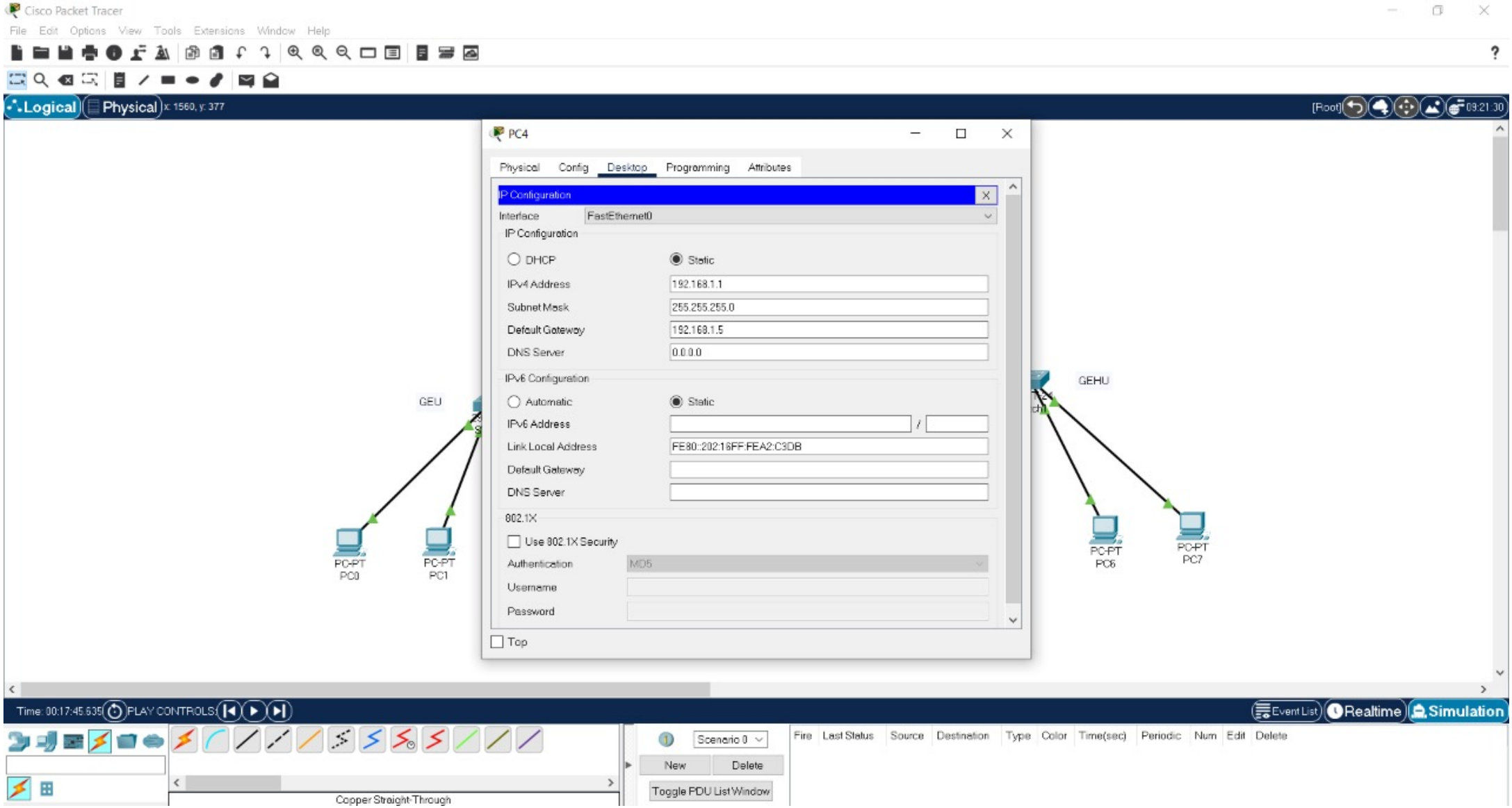
Ans Steps

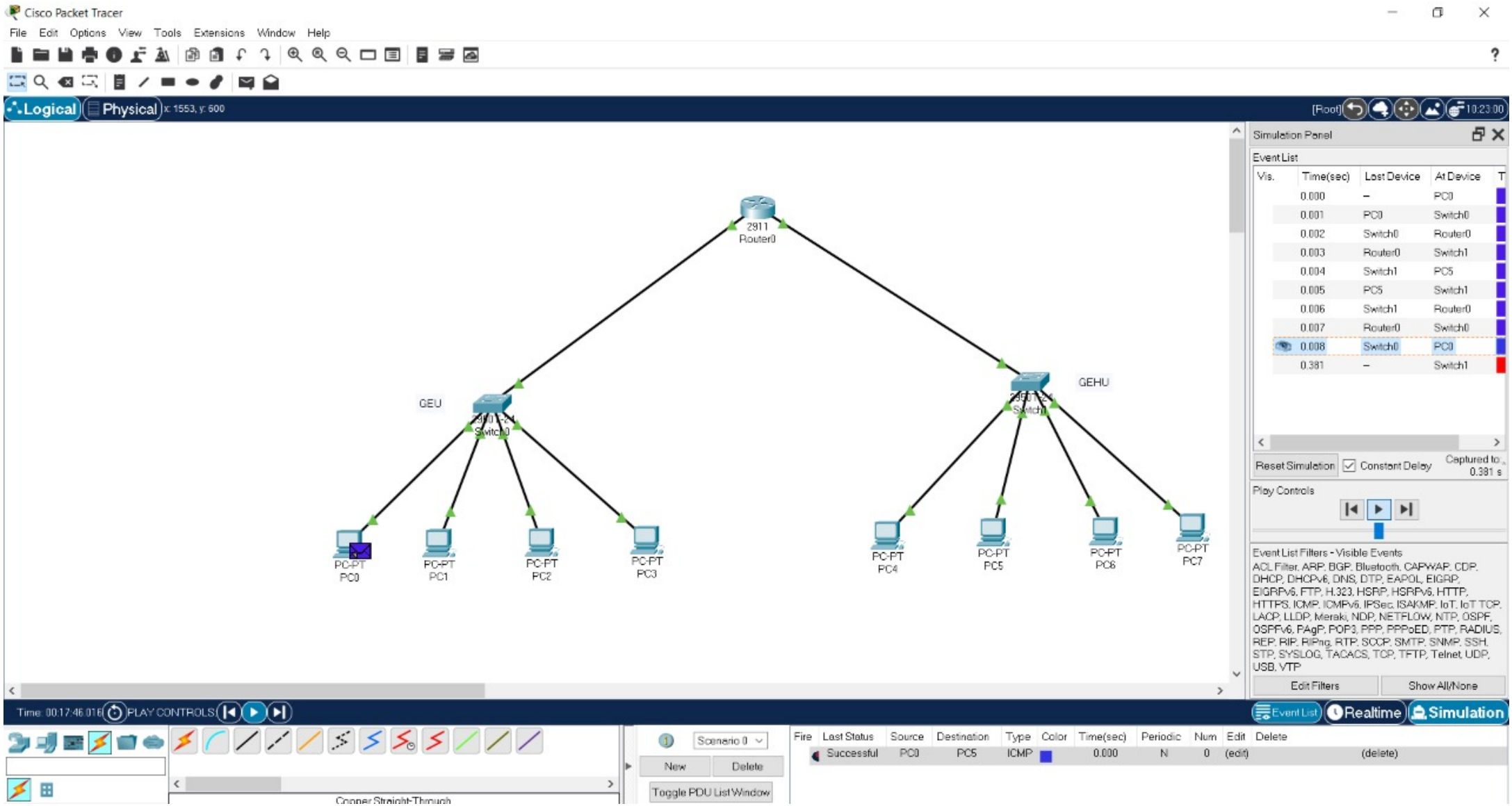
Step 1 - Create LAN-1 with 4 PC and create LAN2 with 4 PC's

Step 2 - Connect both LAN with router and configure the router

Step 3 - Sending PDU to check if connection is established.


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 1529, y: 378
[Root]
05:11:30
2911
Router0
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
PC-PT
PC4
PC-PT
PC5
PC-PT
PC6
PC-PT
PC7
Time: 00:10:08
Realtime
Simulation
Copper Straight-Through
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 1560, y: 377
[Root]
09:21:30
PC4
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address 192.168.1.1
Subnet Mask 255.255.255.0
Default Gateway 192.168.1.5
DNS Server 0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address FE80::202:16FF:FEA2:C3DB
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
GEU
GEHU
PC-PT PC0
PC-PT PC1
PC-PT PC6
PC-PT PC7
Time: 00:17:45.635
PLAY CONTROLS:
Event List
Realtime
Simulation
Copper Straight-Through
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1553, y: 600
[Root] 10:23:00
2911
Router0
GEU
GEHU
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
PC-PT
PC4
PC-PT
PC5
PC-PT
PC6
PC-PT
PC7
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device T
0.000 – PC0
0.001 PC0 Switch0
0.002 Switch0 Router0
0.003 Router0 Switch1
0.004 Switch1 PC5
0.005 PC5 Switch1
0.006 Switch1 Router0
0.007 Router0 Switch0
0.008 Switch0 PC0
0.381 – Switch1
Reset Simulation
Constant Delay
Captured to: 0.381 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, Meraki, 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: 00:17:46.016
PLAY CONTROLS
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 PC0 PC5 ICMP 0.000 N 0 (edit) (delete)
Copper Straight-Through