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Std id - 20711169

Subject - PMC - 202, Computer Networks Lab

Class - MCA(2)

Campus - Haldwani, Gehu

Q1. 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 user number 5 of the network

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Any-1 Here we will see various steps for design HR department with the 10 users and communicate b/w user number 1 and user number 5.

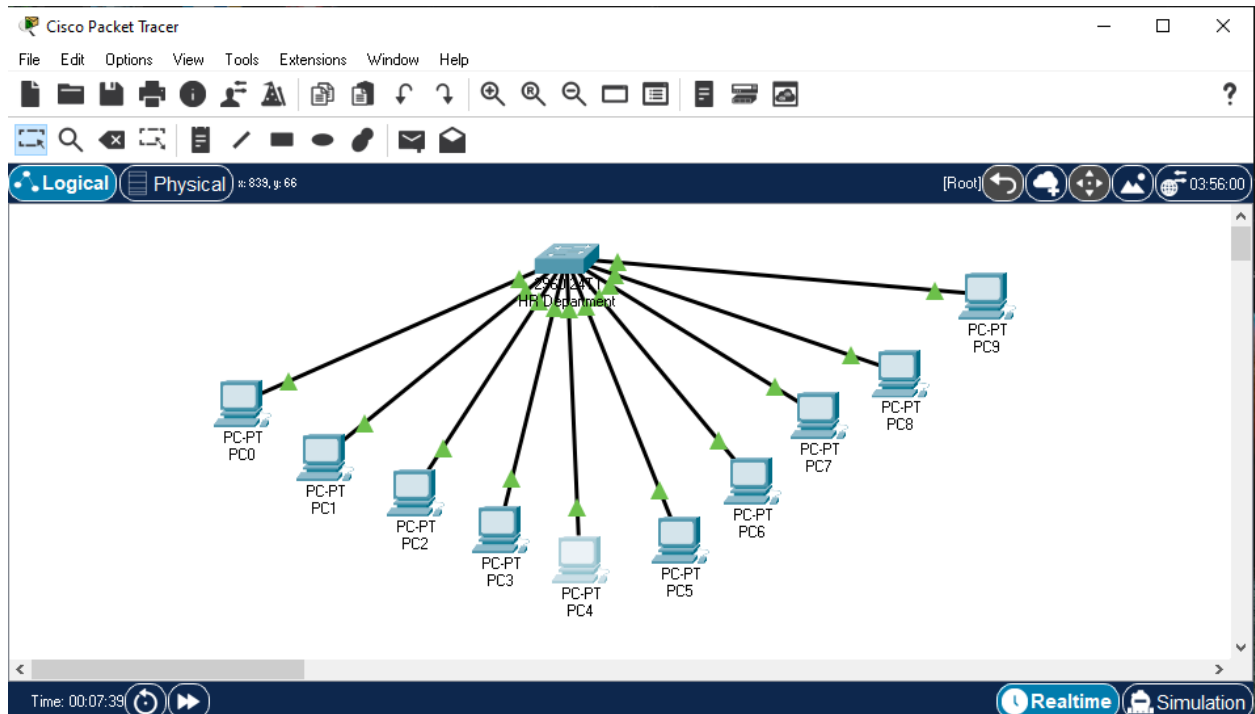
Step 1- In this step we will take 10 PCs, one switch by ethernet wire

Step-2 In this step we will give IP address of PC0 & PC4 device

Step 3- In Realtime added Add Single PDU (P) from PC0 to PC4 it means we want to send data from PC0 to PC4

Step 4- Now see in Simulation mode and play, it's showing data transfer. Data transfer from Source to Destination

Step 5- After Reached the destination, the destination sent acknowledgement to the source.



Physical Config **Desktop** Programming Attributes

IP Configuration



Interface FastEthernet0



IP Configuration



DHCP



Static

IPv4 Address

10.1.1.1

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::200:CFF:FE03:B6A6

Default Gateway

DNS Server

802.1X



Use 802.1X Security

Authentication

MD5



Username

Password

PC4

Physical

Config

Desktop

Programming

Attributes

IP Configuration

X

Interface

FastEthernet0

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

10.1.1.4

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::210:11FF:FE78:BC14

Default Gateway

DNS Server

802.1X

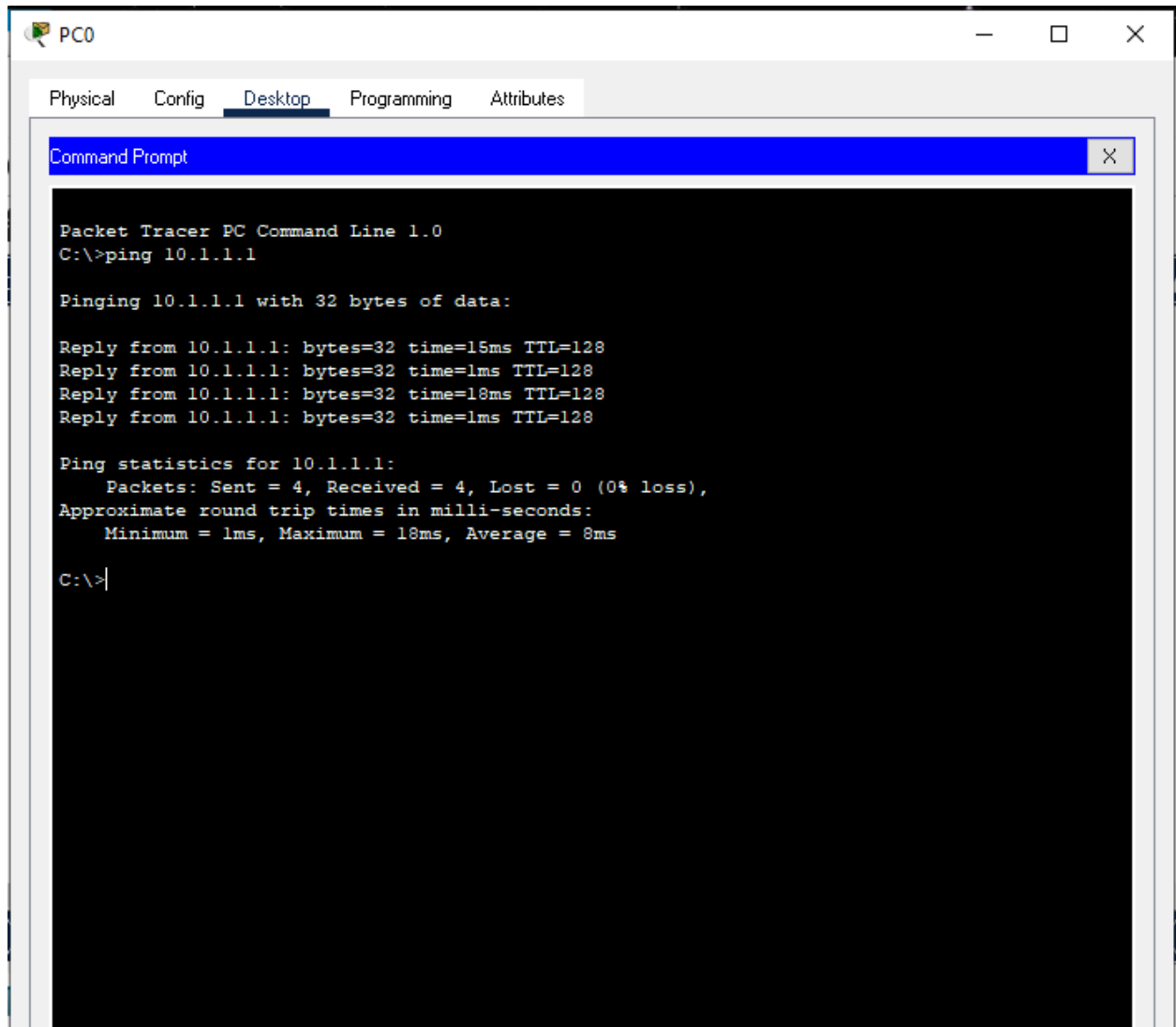
☐ Use 802.1X Security

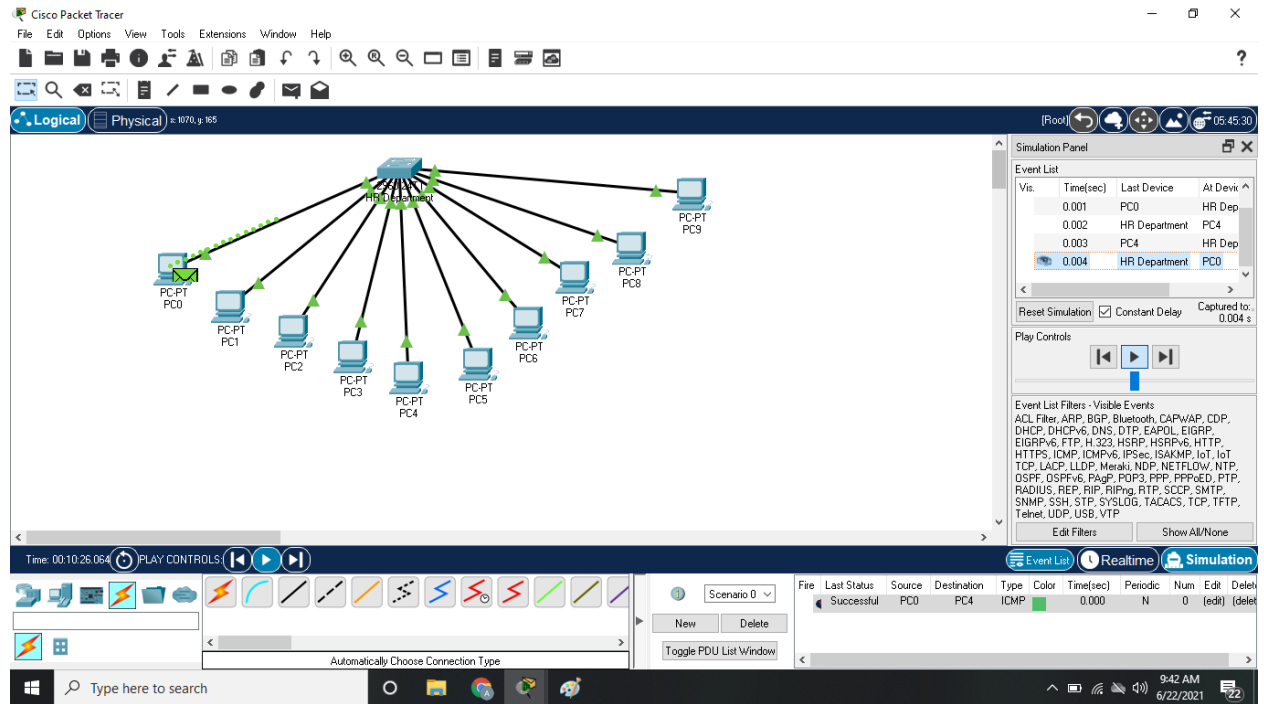
Authentication

MD5

Username

Password





Q2. 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.

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Pr-2 Here we will take multiple steps to perform this

Step 1 - In this step we will take one Router, ^{two} switches in which switch 1 contains ^{GETH} SOC department of GETHU and GETHU of SOC department.

Step 3 - Switch 1 (GETHU of department) has connected with three devices PC0, PC1, PC2 & Switch 2 has ^{also} connected with 3 devices that is PC3, PC4, & PC5.

Step 4 - We set the IP addresses of device 1 ^{→ (user number 1)} GETHU & device ^(user number 2) for 1

Step 5 - In Realtime added Simple PDU (P) from PC0 to PC4 which refers we send data from PC0 to PC4

Step 6 - See in simulation & play, it will show data transfer. Data travel from Source to Destination.

Step 7 - After Reached in destination, the destination sent acknowledgement to the source.

And we will the status and it will be success.

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1248, 428

[Root] 06:08:30

Simulation Panel

Event List

| Vis. | Time(sec) | Last Device | At Device |
|------|-----------|-------------|-----------|
| | 0.000 | | PC0 |

Reset Simulation ☒ Constant Delay Captured to: 0.000 s

Play Controls

Event List Filters - Visible Events

ACL Filter, APP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, PAgPv6, 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: 00:11:57.179 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

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

| | | | | | | | | | |
|-------------|-----|-----|------|--|-------|---|---|--------|----------|
| In Progress | PC0 | PC4 | ICMP | | 0.000 | N | 0 | [edit] | [delete] |
|-------------|-----|-----|------|--|-------|---|---|--------|----------|

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Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1248, 428

[Root] 06:33:00

Simulation Panel

Event List

| Vis. | Time(sec) | Last Device | At Device |
|------|-----------|-------------|-----------|
| | 0.005 | PC4 | Switch1 |
| | 0.006 | Switch1 | Router0 |
| | 0.007 | Router0 | Switch0 |
| | 0.008 | Switch0 | PC0 |

Reset Simulation ☒ Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, APP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, PAgPv6, 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: 00:11:57.179 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

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

| | | | | | | | | | |
|------------|-----|-----|------|--|-------|---|---|--------|----------|
| Successful | PC0 | PC4 | ICMP | | 0.000 | N | 0 | [edit] | [delete] |
|------------|-----|-----|------|--|-------|---|---|--------|----------|

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