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Date:
Page No.

### Question. 1

#### Problem Statement.

There is an organization A with multiple department. Design a network for the HR department and the size of the department is 10 users. also show the communication b/w user number 1 and user number 5 of the network.

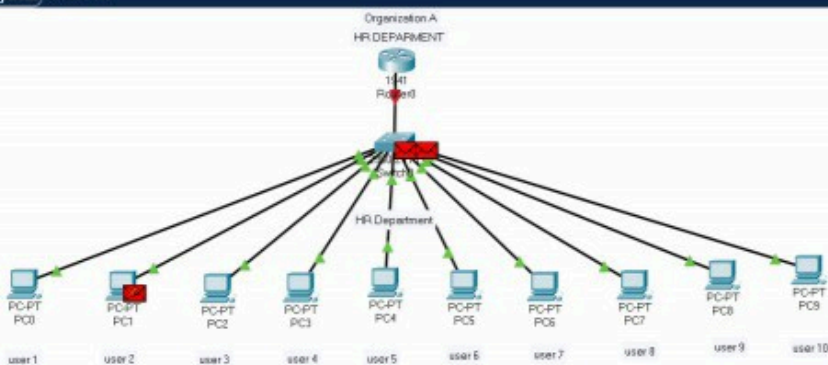
#### Steps to perform.

- 1- We will place Organization A, HR Department and users 1 to user 10
- 2- Add router and switch and connect them with cable.
- 3- Add 10 machines named PC0 to PC9 and connect all machine to switch
- 4- Assign IP address to every machine
- ⑤ we had assigned IP as follows.  
PC0 - 192.168.1.1  
PC4. 192.168.1.5
- ⑥ Now there are 2 ways to verify the connection b/w 2 users.
- ⑦ we can see the connection is successful and we are able to communicate b/w user 1 and user 5 of HR Department





Logical Physical 1404 719



Simulation Panel

Vis.	Time(sec)	Last Device	At Device	Type
	1.606	Switch0	PC1	STP
	1.606	Switch0	PC4	STP
	1.606	Switch0	PC8	STP
	1.606	Switch0	PC2	STP
	1.606	Switch0	PC3	STP
	1.606	Switch0	PC6	STP
	1.606	Switch0	PC9	STP
	1.606	Switch0	PC7	STP
	1.606	Switch0	PC5	STP
	1.606	Switch0	PC8	STP
	2.929	Switch0	PC3	DTP
	2.960	Switch0	Switch0	DTP
	2.961	Switch0	Switch0	DTP
	2.961	Switch0	PC1	DTP
	2.961	Switch0	Switch0	DTP

Reset Simulation Constant Delay Captured to: 2.961 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, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, RDP, RDPv6, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:07:30.579 PLAY CONTROLS



Scenario 1  
New Delete  
Toggle PDU List Window

File	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC8	PC4	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC8	PC4	ICMP		0.000	N	1	(edit)	(delete)



Question 2.

**Problem Statement** There are two organization in a city named GEV and GEHV, design a network b/w the SOC department of GEV and GEHV also show the communication b/w user number 1 of GEV and user number 2 of GEHV.

**Steps to perform.**

**Objective Description** we will create a virtual LAN environment in Cisco packet + tracer that will connect 2 user of different department and connection will be established.

**Step to perform.**

- (a) we will place notes first
- (b) we will place 2 router and 2 switches
- (c) Connect both routers with serial DTF wire.
- (d) Add 2 system or 2 users in each organization named user no 1 and user no 2.
- (e) we assign IP address to 2 system.
- (f) No again more 2 ways to verify b/w 2 user.
  - (1) Pinging other user IP
  - (2) sending PDU packet from user 1 to user 2.

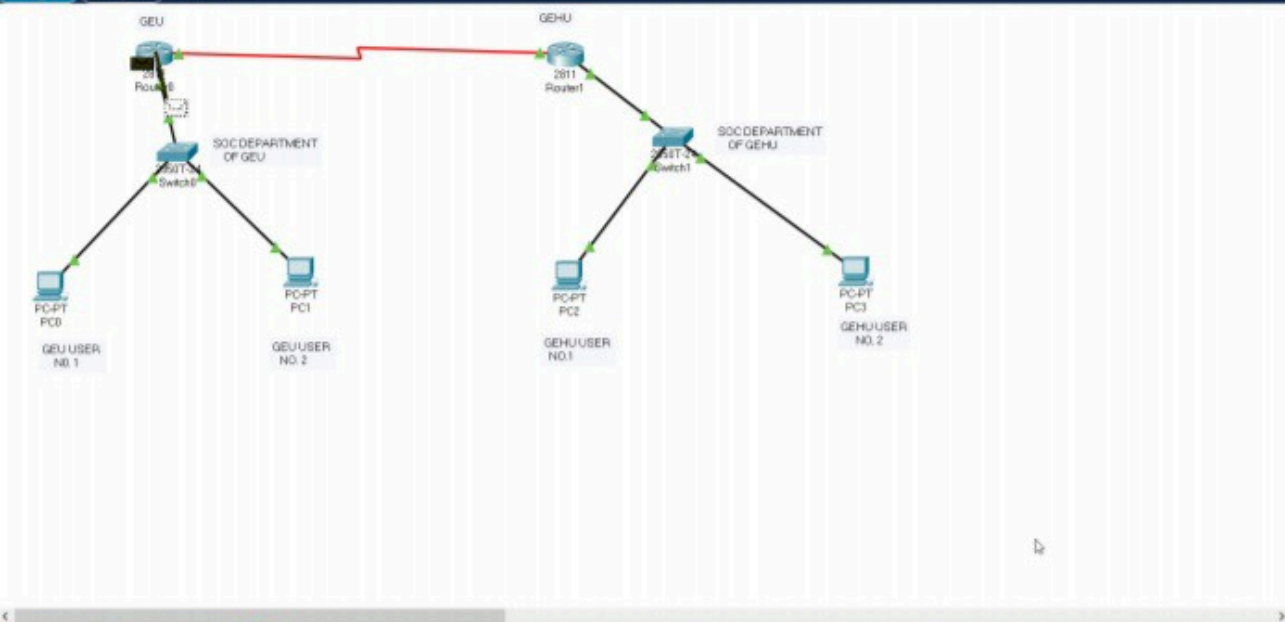


(c) we can see now user 1 & user 2  
connected. we are able to communicate  
b/w them via various methods

~~Kolix~~



Logical Physical 1252, p. 544 [Proof] 95.15.30



Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device
	0.002	Switch1	PC3
	0.003	Switch0	Router0
	0.003	Router0	Switch0
	0.003	PC3	Switch1
	0.004	Router0	Router1
	0.004	Switch0	PC0
	0.004	Switch1	Router1
	0.005	Router1	Switch1
	0.006	Switch1	PC3
	0.007	PC3	Switch1
	0.008	Switch1	Router1
	0.009	Router1	Router0
	0.010	Router0	Switch0
	0.011	Switch0	PC3

Reset Simulation ☒ Constant Delay Captured to: 186.435 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, Moxik, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, PoE3, PPP, PPPoE, PTP, RADIUS, RDP, RDPv6, RTP, SSCP, SMTP, SNMP, SSH, STP, Syslog, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:11:39.541 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

File	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	Router0	ICMP		0.000	N	0	(edit)	(delete)
	Successful	Router0	Router1	ICMP		0.000	N	1	(edit)	(delete)
	Successful	Router1	PC3	ICMP		0.000	N	2	(edit)	(delete)