



## **Experiment Title: 2.4**

Student Name: Branch: CSE Semester: 4 Subject Name: CN LAB

UID: Section/Group: Date of Performance: 04-04-2022 Subject Code: 20CSP-257

## 1. Aim/Overview of the practical:

Configure a network using Distance Vector routing Protocol using Packet Tracer or NS2.

## 2. Task to be done:

We need to send PDU from one end device to another end device with the help of router having different networks.

3. Apparatus/Simulator used (For applied/experimental sciences/materials-based labs): Cisco Packet Tracer

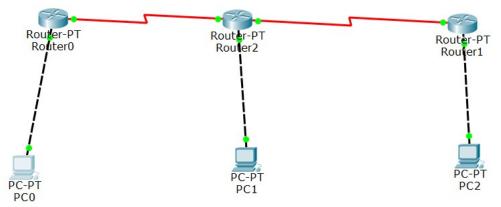
- 4. Algorithm/Flowchart (For programming-based labs):
  - 1. Open the simulator.







2. Plot some generic routers and some end devices(PC's) where end devices to router is connected by Automatically Choosen wire and routers are connected each other by Serial DCE wire type.



3. Give Ip addresses to all the end devices and give default Ip address to router with default gateway

RC0		-			Х
Physical Config	Desktop	Custom Interface			
IP Configuration IP Configuration DHCP OS IP Address Subnet Mask Default Gateway DNS Server	Static <u>10.0.0.2</u> 255.0.0	0.0		X	
IPv6 Configurati ODHCP OAuto IPv6 Address Link Local Addres IPv6 Gateway IPv6 DNS Server	Config Cos	Static	B0:C	/ 984	, , ,
	er Pi	autor		FIFew;	

4. Now, Configure router's fast ethernet with port status ON







Router0					×				
Physical Co	nfig CLI								
GLOBAL	FastEthernet0/0								
Settings	Port Status			C					
ROUTING	Bandwidth O 10								
Static RIP	Duplex Half Du				Au				
INTERFACE astEthernet0/									
astEthernet1/	IP Address	1							
Serial2/0 Serial3/0	Subnet Mask	255.0.0	.0		_				
astEthernet4/	Ty Ring Limit	10	_	_					
Equivalent IOS Commands Router (config) #interface Serial2/0 Router (config-if) # Router (config-if) #exit Router (config) # Router (config) #interface FastEthernet0/0 Router (config-if) #									

5. Now, configure router's serial port with clock rate 64000 and port status ON

Router0			_		$\times$				
Physical Conf	ig CLI								
GLOBAL	Serial2/0								
Settings gorithm Settin	Port Status				🗹 On				
ROUTING	Duplex		O Full Du	plex					
Static	Clock Rate		64000						
RIP	IP Configuration								
INTERFACE astEthernet0/	IP Address	40.	40.0.0.2						
astEthernet1/	Subnet Mask	25							
Serial2/0 Serial3/0 astEthernet4/1	Tx Ring Limit	10	0						
Equivalent IOS Commands									
Router(config)# Router(config)#interface FastEthernet0/0									
Router (config-if) #									
Router(config-if) #exit Router(config) #interface Serial2/0 Router(config-if) #									

6. Now, configure static routing of router

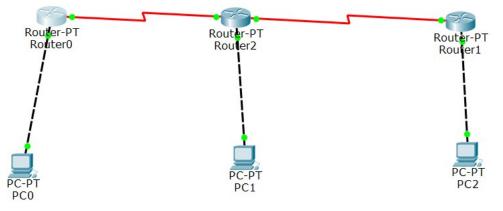






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i jo	Settings		Static Routes		
i 30	oorenigo		Static Routes		
	rithm Settin	Network			
	ROUTING	Mask			
	Static	Next Hop			
	RIP				_
I	NTERFACE			Add	
as	stEthernet0/				
	stEthernet1/	Network Add	Iress		
	Serial2/0	20.0.0.0/8 vi	a 40 0 0 3		
	Serial3/0	20.0.0.0/0 1	a 40.0.0.J		
as	stEthernet4/				-
	Lett Let	]		Remove	
	uivalent IOS Co				
	outer(config- outer(config-				
		#interface Se	ria12/0		
	outer (config-				100

7. Also, now similarly setup other routers and end devices for perfect setup for experiment. And make sure all connections are green.

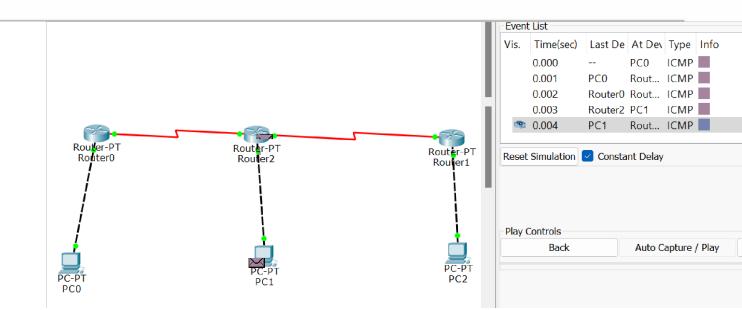


- **8.** Now , run stimulation in real time by PDU.
- 9. Now , check successful status .









**10.**Now stop stimulation after successful output for experiment

9	/ Forward										Eve	ent Lis	t Simulation
	<ol> <li>Scenario</li> </ol>	0 ~	Fire	Last Statu	Sourc	Destinatio	Type	Colo	Time(:	Period	Num	Edit	Delete
	New	Delete	•	Successful	PC0	PC1	IC		0.000	N	0	(ed	(delete)
	Toggle PDU	List Window											

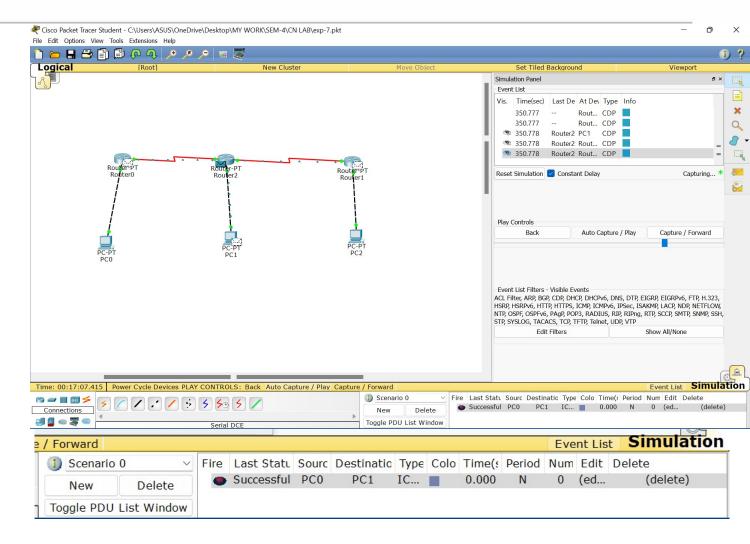
5. Circuit SnapShot:

6. Result/Output/Writing Summary: understanded how packet travels in network if RIP is configured as routing protocol.









Learning outcomes (What I have learnt):

- 1. Know about how the data is transfer through computers.
- 2. Uses of switches(Can be used) and routers.
- 3. Knowledge abouts address like Ip, default, static routing, etc.
- 4. Some knowledge about port status, subnet mask.
- 5. We get to know about static and serial status.
- 6. We also know about clock frequency.







## **Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):**

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			
4.			

