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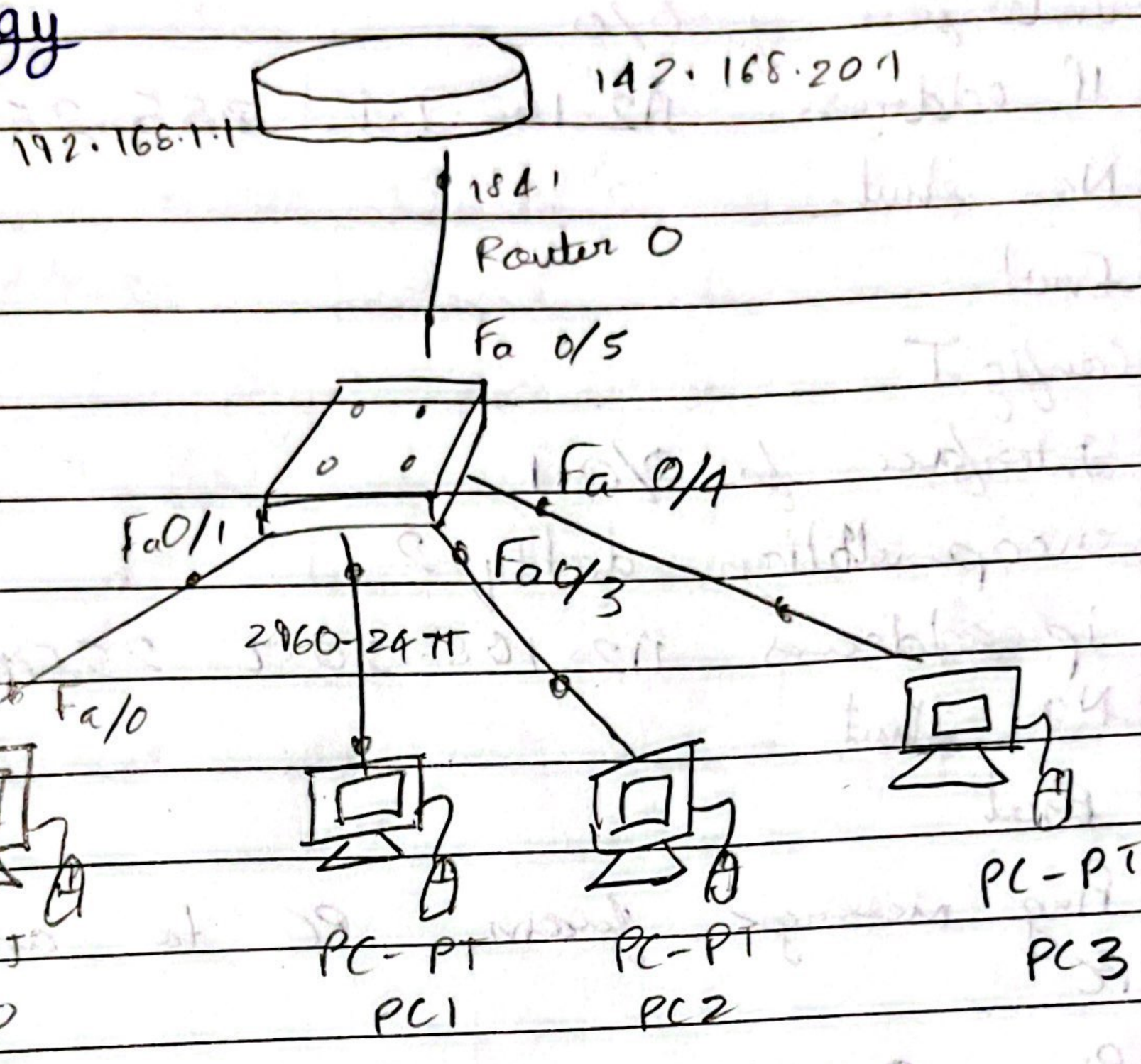
LAB-9

Aim:- To construct a VLAN and make a PC communicate among VLAN

Topology



Procedure:-

- Create a topology as shown choose 1841 router and 2460-24TT switch
- Set IP address of the router and 4PC's respectively, we use class C type address also set gateways
- In switch go config table and select VLAN database, give any no. VLAN like 2 and name as VLAN
- Select the interface fastEthernet 4/1 and make it trunk.
- Select switches under 2nd interface which has interface 0/3 and 0/4 which on each of them set VLAN number 2

Go to router → config tab and select VLAN database and enter name VLAN and no 2 created.

1) Write following commands

1. Config T
2) Interface fa 0/0
3 IP address 192.168.1.1 255.255.255.0
4 No shut
5 Exit
6 Config T
7 Interface fa 0/0.1
8 encapsulation dot1q 2
9 ip address 192.168.20.7 255.255.0
10 No shut
11 Exit
12 Ping message from PC to another VLAN PC

Ping Output:-

Packet tracer PC command line 1.0
PC> 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=0ms TTL=
Reply from 192.168.20.3 : bytes=32 time=5ms TTL=
Reply from 192.168.20.3 : bytes=32 time=0ms TTL=
Ping statistics for 192.168.20.3
Packets sent = 4, Recieved = 3, lost = 1 (25%)

Approximate round trip times in milli-seconds
minimum = 0ms, Maximum = 5ms, Average =

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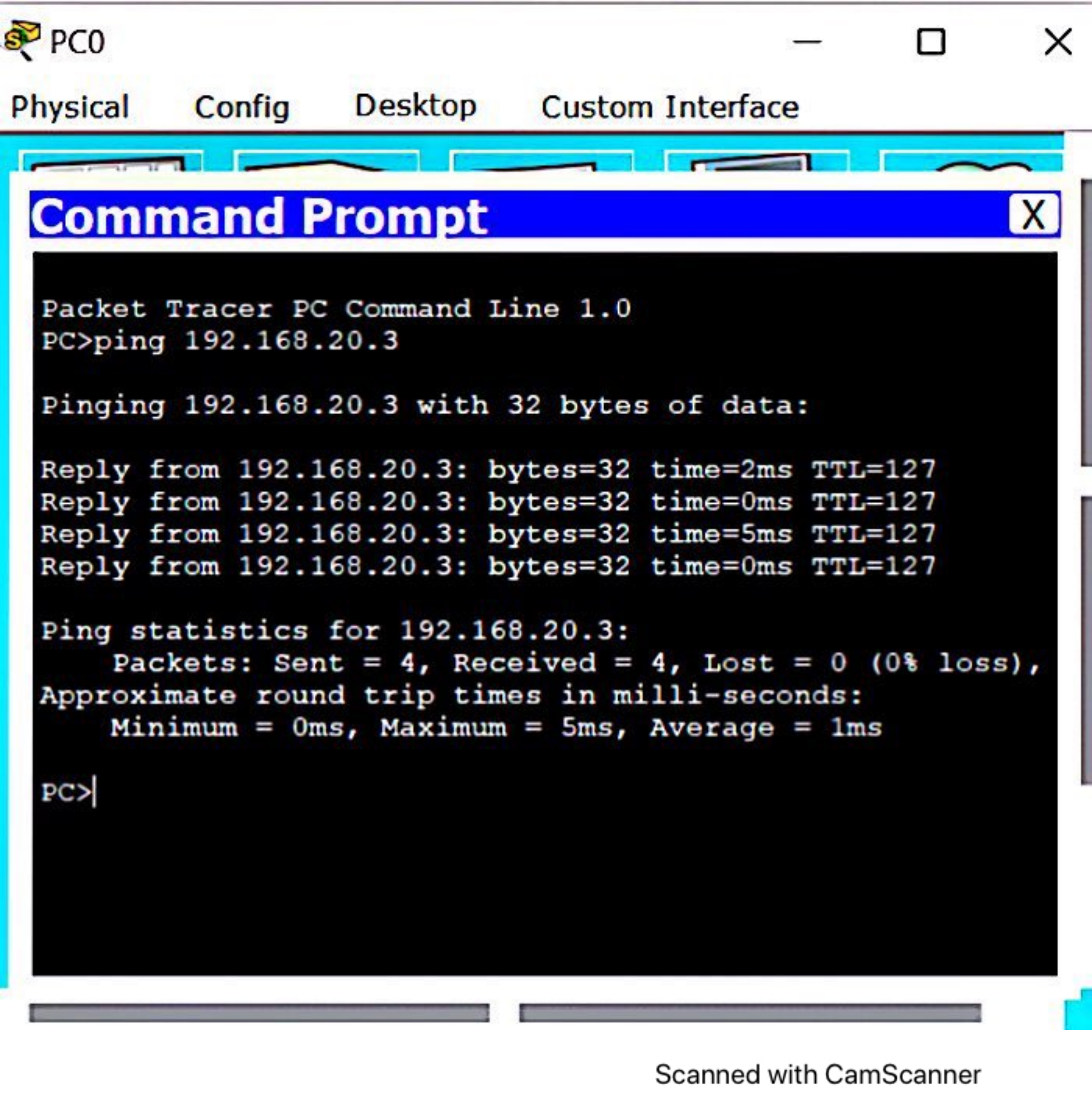
Observation :-

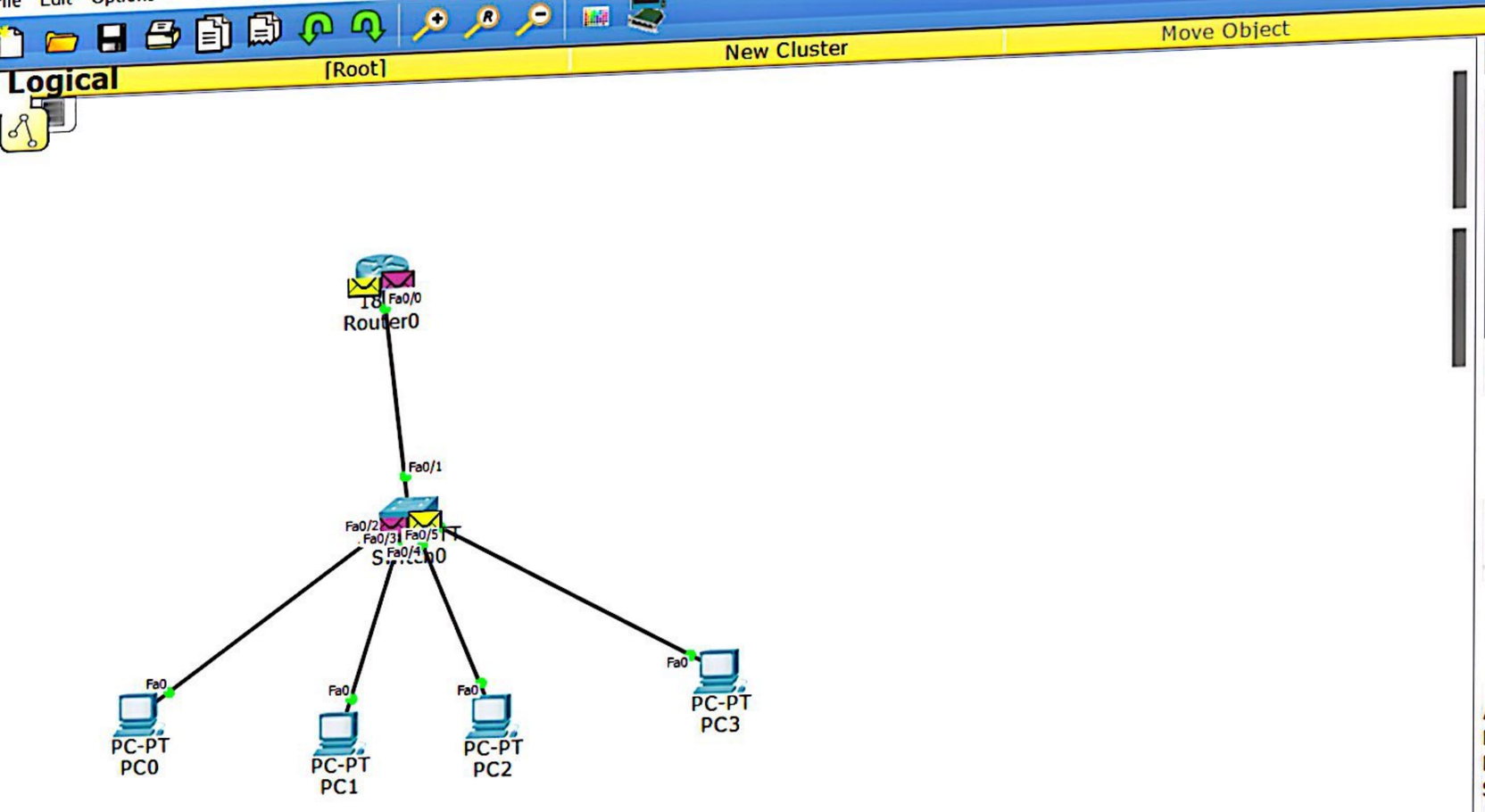
1) We can have one device one one VLAN and another VLAN connected to the same switch. They will only hear either broadcast traffic from within their VLANs, as if they were connected to two switches.

2) There VLAN's does not use IP address instead deal with subnets/ class C type address.

3) Inter VLAN routing gives a flexible tool to logically subdivide their networks that has potential to enhance security and performance

7/9/2023





Simulation Panel

Event List

Vis.	Time(sec)	Last De	At Dev	Type	Info
	0.001	--	PC0	ICMP	
	0.002	PC0	Switc...	ICMP	
	0.002	Switch0	Rout...	ICMP	
	0.003	Switch0	Rout...	ICMP	
	0.003	Router0	Switc...	ICMP	

Reset Simulation | Constant Delay | Captured to: 0.003 s

Play Controls

Back | Auto Capture / Play | Capture / Forward

Event List Filters - Visible Events

ACL Filter, ARP, BGP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, LACP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, RADIUS, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, VTP

Edit Filters | Show All/None