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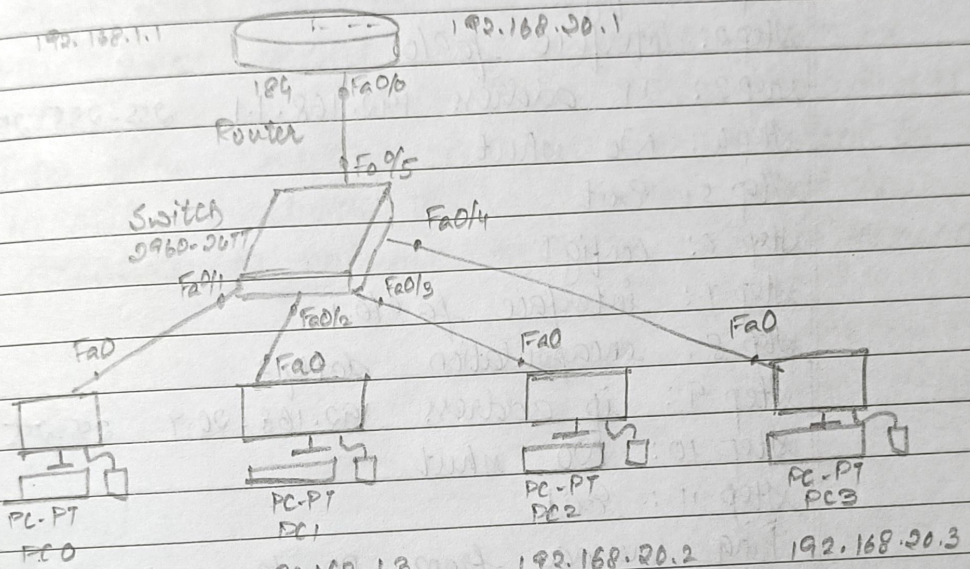
LAB-9

AIM -

To construct a VLAN and make a PC communicate among VLAN



PROCEDURE

- Create a topology as shown above chose 1841 router and 2960-24TT switch here.
- Set the ip address of the router and 4PC's respectively we use class C type addresses also set gateways
- In switch, go to config tab and select VLAN database. Give any VLAN. no like 2 and name as VLAN.
- Select the interface fastethernet 4/1 and make it trunk.
- Next select the switches under 2nd interface which has interface 0/3 & 0/4, click on each of them and set VLAN number 2.

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

→ Go to router → CLI and type the following commands.

Step1: configT
Step2: interface fa0/0
Step3: IP address 192.168.1.1 255.255.255.0
Step4: No shut
Step5: Exit
Step6: ConfigT
Step7: interface fa0/0.1
Step8: encapsulation dot1q 2
Step9: ip address 192.168.20.1 255.255.255.0
Step10: No shut
Step11: Exit
Ping message from PC to another VLAN PC.

PING - OUTPUT:

Packet tracer PC Commaad 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=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Ping statistics for 192.168.20.3
Packets sent=4, Recieved=3, lost=1 (25% loss),
Approximate round trip times in milliseconds:
Minimum=0ms, Maximum=5ms, Average=1ms

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OBSERVATION:

- We can have one device on one VLAN & another on another VLAN connected to the same switch. They will only hear other broadcast traffic from within their VLANs, doesn't use IP address instead, deal as if they were connected to two switches.
- Here VLANs doesn't use IP address instead deal with subnets / class C type addresses.
- Inter VLAN routing gives a flexible tool to logically subdivide their networks that has potential to enhance security and performance.