

10/9/24

Ex-8a)

Date: 10/9/24

Configuration of Virtual LAN

Aim

Simulate Virtual LAN configuration using Cisco Packet Tracer Simulation.

Perform following configuration:

- 1) Create the network using switches and PCs.
- 2) Configure static IPs on PC as follows:

PC0 : fa0/1 - IP address : 192.168.10.2

Gateway : 192.168.10.1

PC1 : fa0/2 - IP address : 192.168.10.3

Gateway : 192.168.10.1

PC2 : fa0/3 - IP address : 192.168.20.2

Gateway : 192.168.20.1

PC3 : fa0/4 - IP address : 192.168.20.3

Gateway : 192.168.20.1

- 3) Open command line interface of switch and configure VLANs (VLAN10, VLAN20) and name them.

- 4) Assign first two PCs (PC0, PC1) to VLAN10 and other two to VLAN20 by configuring them in CLI

- 5) Open command prompt of PC0 and ping the PC1 by 'ping 192.168.10.3' and we get reply messages.

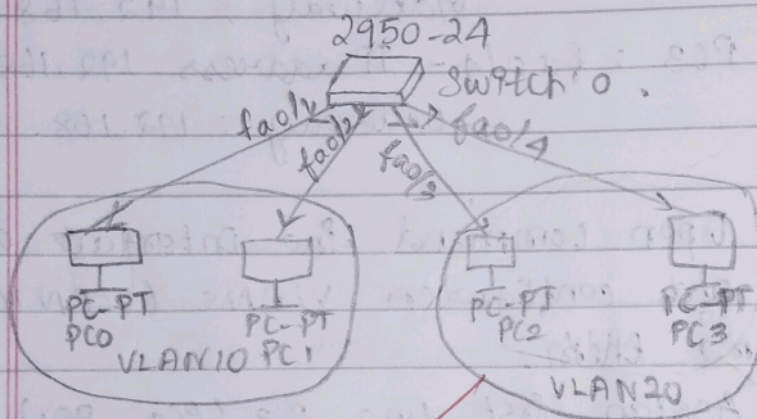
6) Open command prompt of PC₁ and type 'ping 192.168.10.2' and we get reply messages from PC₀ and ping the PC₂ with 32 bytes of data.

7) Open command prompt of PC₂ and ping PC₃ by 'ping 192.168.20.3' and get reply messages.

8) Set the file from PC₃ to PC₂ and PC₁ to PC₀ to check if it transfers successfully.

Here two VLANs network is created and assigned IP address to each PC, and check whether packets are transferred with VLANs successfully.

Diagrammatic representation:



Output Panel : •

pid	Last Status	Source	Destination	Type	Time	Periodic	Name
●	Successful	PC2	PC1	ICMP	0.000	N	0
●	Successful	PC3	PC2	ICMP	0.000	N	1

Student Observation :

Write the commands used for VLAN configuration in switch.

```

en
# configure
# vlan 10
# name cisco
# exit
    ]
    for
    VLAN 10
# vlan 20
# name packet
# exit
    ]
    for
    VLAN 20
  
```

Show VLAN

VLAN	Name	Status	Ports
10	cisco	active	fa0/1
20	packet	active	


```
# configure
# interface f0/1
# switchport mode access
# switchport access vlan 10
# exit
```

```
# interface f0/2
# switchport mode access
# switchport access vlan 10
# exit
```

```
# interface f0/3
# switchport mode access
# switchport access vlan 20
# exit
```

```
# interface f0/4
# switchport mode access
# switchport access vlan 20
# exit
```

Output:

The configuration of Virtual LAN
is successfully observed and the
output is verified.