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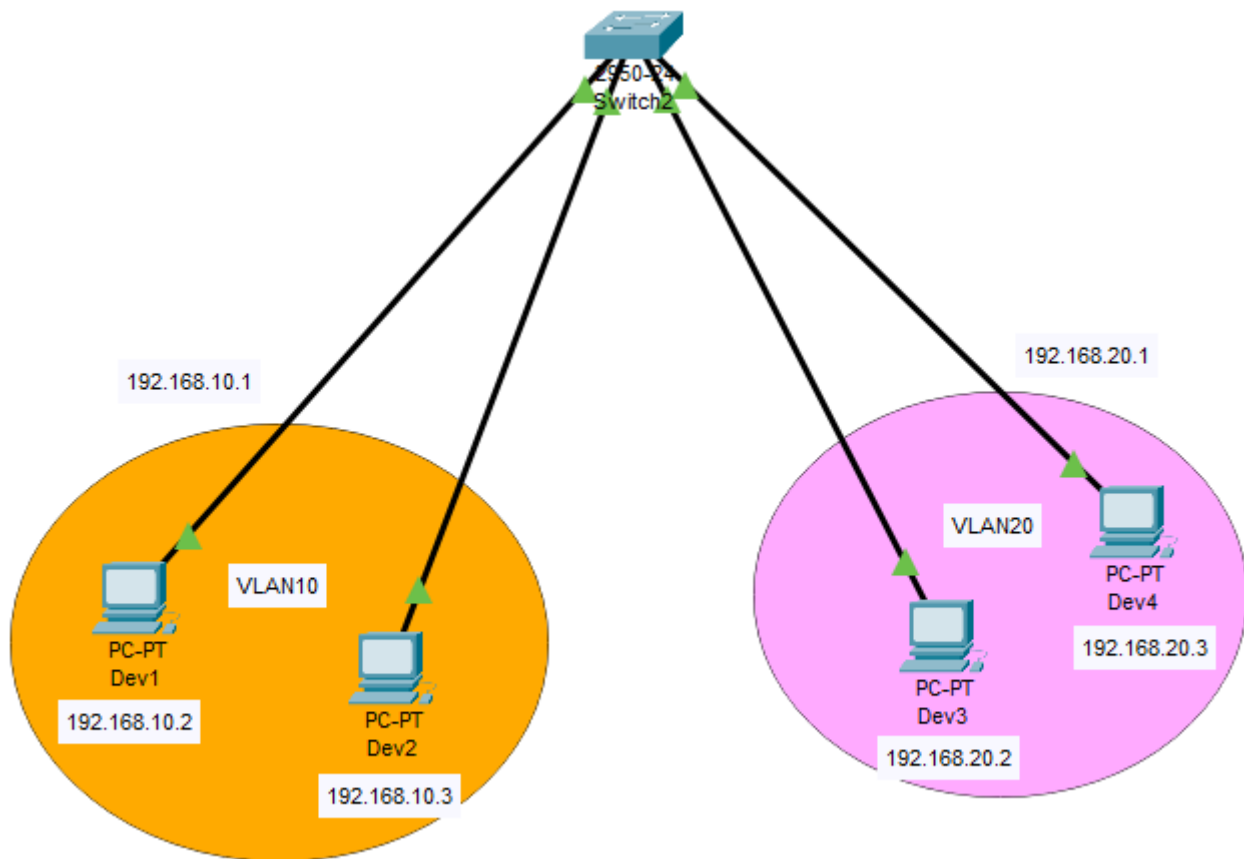
**COMPUTER NETWORKS LABORATORY 10**

**Week : 10**

**Date : 22.04.2021**

University of Engineering & Management, Kolkata  
*Department of Computer Science and Engineering*

## Q1.Configure VLAN using Cisco Packet Tracer.



### Requirements :

1. 4 end devices (PCs)
2. 1 2950-24 Switch

### IP Configuration of the end devices :

For Dev1 : 192.168.10.2

For Dev2 : 192.168.10.3

For VLAN 10 the Gateway is : 192.168.10.1

For Dev3 : 192.168.20.2

For Dev4 : 192.168.20.3

For VLAN 20 the Gateway is : 192.168.20.1

### Configuring the VLAN settings in the switch :

Open the desktop and then go to CLI for connecting the VLANs.

```
Switch>en
```

```
Switch#config
```

```
Configuring from terminal, memory, or network [terminal]?
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Switch(config)#vlan 10
```

```
Switch(config-vlan)#name admin
```

```
Switch(config-vlan)#exit
```

```
Switch(config)#vlan 20
```

```
Switch(config-vlan)#name accounts
```

```
Switch(config-vlan)#exit
```

```
Switch(config)#exit
```

```
Switch#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

Switch#show vlan

VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24
10	admin	active	
20	accounts	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	0	0	
10	enet	100010	1500	-	-	-	-	0	0	
20	enet	100020	1500	-	-	-	-	0	0	
1002	fddi	101002	1500	-	-	-	-	0	0	
1003	tr	101003	1500	-	-	-	-	0	0	
1004	fdnet	101004	1500	-	-	ieee	-	0	0	
1005	trnet	101005	1500	-	-	ibm	-	0	0	

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	0	0	
10	enet	100010	1500	-	-	-	-	0	0	
20	enet	100020	1500	-	-	-	-	0	0	
1002	fddi	101002	1500	-	-	-	-	0	0	
1003	tr	101003	1500	-	-	-	-	0	0	
1004	fdnet	101004	1500	-	-	ieee	-	0	0	
1005	trnet	101005	1500	-	-	ibm	-	0	0	

Remote SPAN VLANs

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Primary	Secondary	Type	Ports
1	10	enet	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24

Switch#

Switch#config

Configuring from terminal, memory, or network [terminal]?

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#interface f0/1

Switch(config-if)#switchport access vlan 10

Switch(config-if)#exit

Switch(config)#interface f1/1

%Invalid interface type and number

Switch(config)#interface f0/2

Switch(config-if)#switchport access vlan 10

Switch(config-if)#exit

Switch(config)#interface f0/3









```

Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#interface f0/4
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

```

### Observation and Analysis :

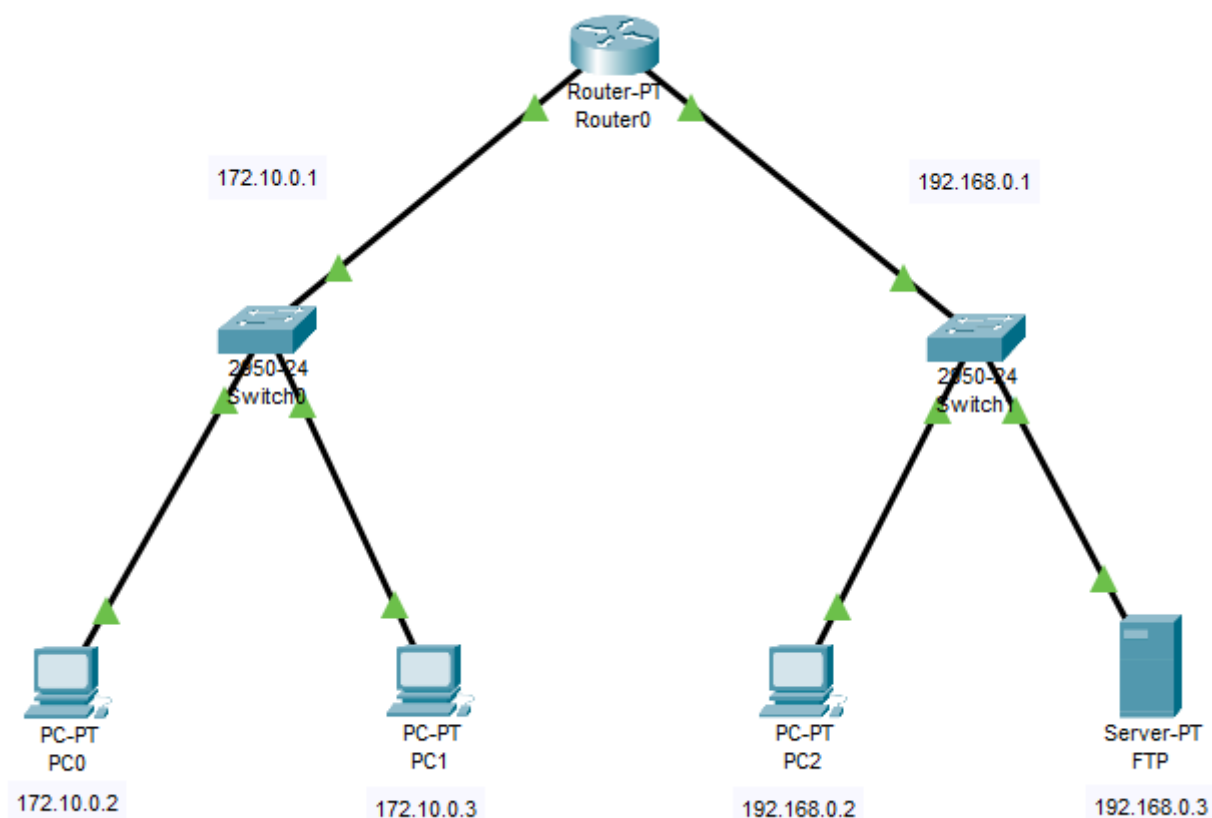
By this configuration we have created two VLANs named as Admin and Accounts. Admin computers cannot connect with Accounts computer in case of data sharing and vice versa. But the computers can share information or, data in the VLAN settings.

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num
	Successful	Dev1	Dev2	ICMP		0.000	N	0
	Successful	Dev3	Dev4	ICMP		0.000	N	1
	Failed	Dev1	Dev3	ICMP		0.000	N	2
	Failed	Dev4	Dev2	ICMP		0.000	N	3

### Q2. Configure the FTP Server using Cisco Packet Tracer.

#### Requirements :

1. Router PT (1 pcs)
2. 2950-24 switches (2 pcs)
3. end devices (3 pcs)
4. Server PT [FTP] (1 pcs)



## Configuring the IP Addresses of the devices :

FastEthernet 0/0 port :

For PC0 : 172.10.0.2

For PC1 : 172.10.0.3

Gateway : 172.10.0.1

FastEthernet 0/1 port :

For PC2 : 192.168.0.2

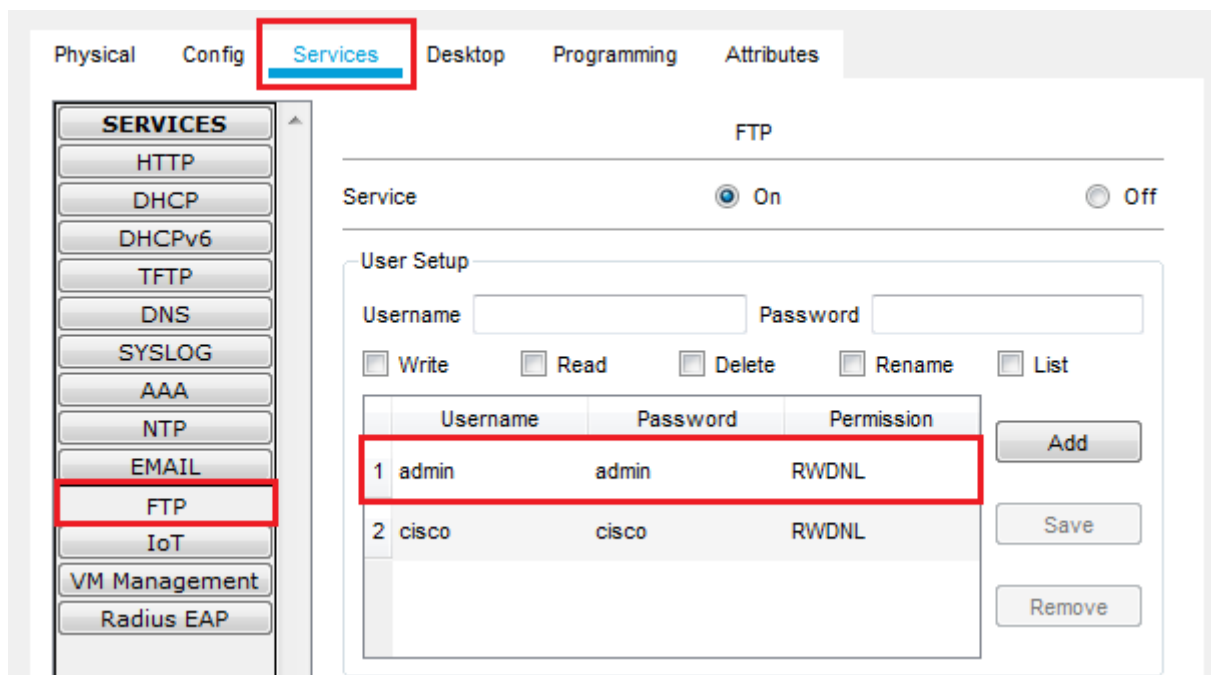
For FTP : 192.168.0.3

Gateway : 192.168.0.1

Put the Gateways in the Router and then the configuration is successful. Now configuring the FTP server with a data sharing approach.

Go to PC2 open the text editor and let's enter some text and the file is saved as msg.txt, which consists this message, "Developed by, Abhishek Sharma, 2021"

Next, we have to create an username and password to secure the FTP and only the selective ones are eligible to access the data of the FTP server. For that, we have put the username and password and also provide the access like, write, read, remove, list etc.



Go to services -> FTP -> put the username and password -> click 'add'

Now let's put this message to the FTP server so that other devices can also access this. Open the command prompt of PC2 and write the following commands to 'put' the data in the server.

```

Packet Tracer PC Command Line 1.0
C:\>dir

Volume in drive C has no label.
Volume Serial Number is 5E12-4AF3
Directory of C:\

1/1/1970    5:30 PM                35          msg.txt
1/1/1970    5:30 PM                26          sampleFile.txt
               61 bytes                2 File(s)

C:\>ftp 192.168.0.3
Trying to connect...192.168.0.3
Connected to 192.168.0.3
220- Welcome to PT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>put msg.txt

Writing file msg.txt to 192.168.0.3:
File transfer in progress...

[Transfer complete - 35 bytes]

35 bytes copied in 0.017 secs (2058 bytes/sec)

```

Now getting the data from the PC0 and PC1 using FTP server.

For that we have to open the PC0 command prompt and write the following commands.

```

Packet Tracer PC Command Line 1.0
C:\>ftp 192.168.0.3
Trying to connect...192.168.0.3
Connected to 192.168.0.3
220- Welcome to PT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get msg.txt

Reading file msg.txt from 192.168.0.3:
File transfer in progress...

[Transfer complete - 35 bytes]

35 bytes copied in 0.01 secs (3500 bytes/sec)
ftp>

C:\>dir

Volume in drive C has no label.
Volume Serial Number is 5E12-4AF3
Directory of C:\

1/1/1970    5:30 PM                35          msg.txt
1/1/1970    5:30 PM                26          sampleFile.txt
               61 bytes                2 File(s)

```

Now getting the data in the PC1 using the FTP server and command prompt,

```
Packet Tracer PC Command Line 1.0
C:\>ftp 192.168.0.3
Trying to connect...192.168.0.3
Connected to 192.168.0.3
220- Welcome to PT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get msg.txt

Reading file msg.txt from 192.168.0.3:
File transfer in progress...

[Transfer complete - 35 bytes]

35 bytes copied in 0.011 secs (3181 bytes/sec)
ftp>

C:\>dir

Volume in drive C has no label.
Volume Serial Number is 5E12-4AF3
Directory of C:\

1/1/1970    5:30 PM           35      msg.txt
1/1/1970    5:30 PM           26      sampleFile.txt
                61 bytes          2 File(s)

C:\>|
```

### **Conclusion :**

We have deployed the FTP server and put and get the data from the server to different end devices. Hence, the server is successfully implemented.