

Worksheet- 3.1

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Branch: B.E. CSE

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UID: 21BCS

Section/Group:

Subject Code: 21CSH-256

Subject Name: Computer Networks

Semester: 4th

1. Aim: Sharing of resources with two connected nodes. Understanding FTP.

2. Software required: Cisco Packet Tracer.

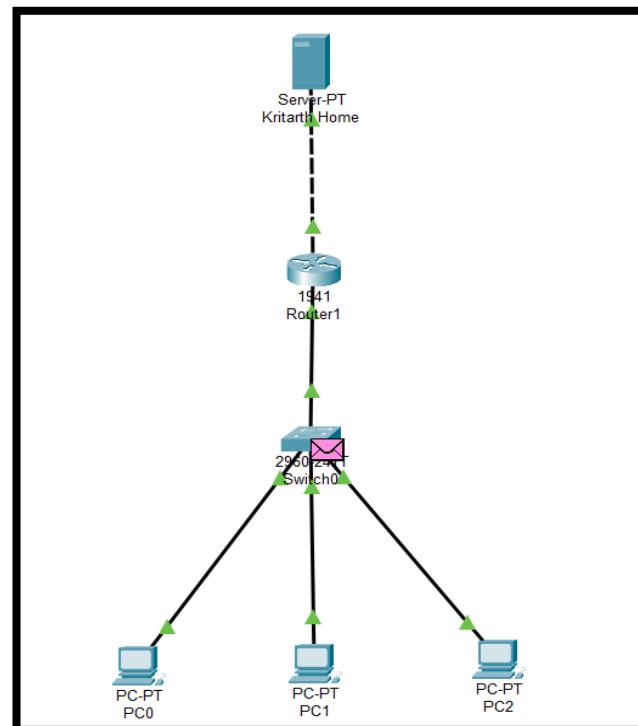
Procedure: -

- Attach PC, 1941 router & Server-PT in the packet tracer software.
- Use copper cross-over wires to connect router to router.
- Connect all the end devices to each other.
- Assign IP address to devices, Configure router as Network address
- Add text in text editor.
- Provide same Gateway IP to all the pc's.
- Use command prompt for sending and downloading file.
- Go to Simulation mode and click capture/Play.

Theory: -

A). File Transfer Protocol (FTP): File Transfer Protocol (FTP) is an application layer protocol that moves files between local and remote file systems. It runs on top of TCP, like HTTP. To transfer a file, 2 TCP connections are used by FTP in parallel: control connection and data connection.

Input Screenshot:





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Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

DHCP Static

IP Address 190.10.10.2

Subnet Mask 255.255.0.0

Default Gateway 190.10.10.1

DNS Server 0.0.0.0

Kritarth Home

Physical Config Services Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCIPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP

FTP

Service On

User Setup

Username Password
 Write Read Delete Rename

Username	Password	Permission
1 kritarth1	ved	RWNL

Physical Config Services Desktop Programming Attributes

GLOBAL

- Settings
- Algorithm Settings

INTERFACE

- FastEthernet0

Global Settings

Display Name Kritarth Home

Gateway/DNS IPv4

DHCP Static

Gateway 10.10.10.1

DNS Server

Gateway/DNS IPv6

DHCP Auto Config Static

Physical Config Desktop Programming Attributes

GLOBAL

- Settings
- Algorithm Settings

INTERFACE

- FastEthernet0
- Bluetooth

FastEthernet0

Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 0060.2FBD.09E3

IP Configuration

DHCP Static

IP Address 190.10.10.4

Subnet Mask 255.255.0.0

IPv6 Configuration

DHCP Auto Config Static

IPv6 Address /

Link Local Address: FE80::260:2FFF:FEBD:9E3



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Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 10.10.10.2
Pinging 10.10.10.2 with 32 bytes of data:
Request timed out.
Reply from 10.10.10.2: bytes=32 time=1ms TTL=127
Reply from 10.10.10.2: bytes=32 time=1ms TTL=127
Reply from 10.10.10.2: bytes=32 time=1ms TTL=127

Ping statistics for 10.10.10.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 1ms, Average = 1ms
```

```
C:\>ftp 10.10.10.2
Trying to connect...10.10.10.2
Connected to 10.10.10.2
220- Welcome to PT Ftp server
Username:kritarthl
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>put hello.txt

Writing file hello.txt to 10.10.10.2:
File transfer in progress...

[Transfer complete - 44 bytes]

44 bytes copied in 0.022 secs (2000 bytes/sec)
ftp>|
```

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ftp 10.10.10.2
Trying to connect...10.10.10.2
Connected to 10.10.10.2
220- Welcome to PT Ftp server
Username:kritarthl
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get hello.txt

Reading file hello.txt from 10.10.10.2:
File transfer in progress...

[Transfer complete - 44 bytes]

44 bytes copied in 0.009 secs (4888 bytes/sec)
ftp>|
```

Output Screenshot:

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.004	--	PC0	ICMP
	0.005	Switch0	PC1	ARP
	0.005	PC0	Switch0	ICMP
	0.005	--	PC1	ICMP
	0.006	PC1	Switch0	ICMP
	0.006	Switch0	PC1	ICMP
	0.007	Switch0	PC2	ICMP
	0.007	PC1	Switch0	ICMP
	0.008	PC2	Switch0	ICMP
	0.008	Switch0	PC0	ICMP
	0.009	Switch0	PC1	ICMP
	0.415	--	Switch0	STP
eye	0.416	Switch0	PC1	STP
eye	0.416	Switch0	PC2	STP
eye	0.416	Switch0	Router1	STP
eye	0.416	Switch0	PC0	STP

Reset Simulation Constant Delay Capturing...

Event List **Realtime** **Simulation**

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
blue	Successful	PC0	PC1	ICMP	dark red	0.000	N	0	(edit)	(delete)
red	Successful	PC1	PC2	ICMP	green	0.000	N	1	(edit)	(delete)

23:49 04-05-2023

Learning Outcomes:

1. In this practical, I have learned the basic concepts of File Transfer Protocol (FTP).
2. I have learned how to implement the FTP.
3. Learnt how FTP work in real world scenario and how to send and download the files.