

## Lab 9: Objective:

### File Transfer Protocol

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#### FTP Server

An FTP Server is a piece of software that is running on a computer and uses the File Transfer Protocol to store and share files. Remote computers can connect anonymously, if allowed, or with a user name and password in order to download files from this server using a piece of software called a FTP Client.

An FTP server is a computer which has a file transfer protocol (FTP) address and is dedicated to receiving an FTP connection. An FTP server needs a TCP/IP network for functioning and is dependent on usage of dedicated servers with one or more FTP clients. In order to ensure that connections can be established at all times from the clients, an FTP server is usually switched on. An FTP server is an important component in FTP architecture and helps in exchanging of files over internet. An FTP server is also known as an FTP site.

#### Task- Upload a File to the FTP Server

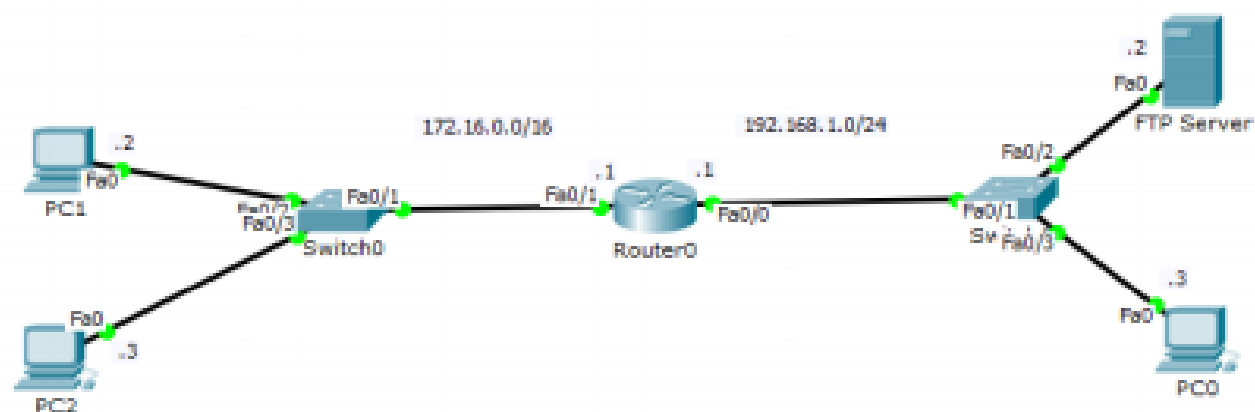


Figure 1

Refer to figure 1,

### Task 1, IP to Router

```
Router>enable
```

```
Router#configure terminal
```

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

```
Router(config)#interface Fa0/0
```

```
Router(config-if)#ip address 192.168.1.1 255.255.255.0
```

```
Router(config-if)#no shutdown
```

```
Router(config-if)#exit
```

```
Router(config)#interface Fa0/1
```

```
Router(config-if)#ip address 172.16.0.1
```

```
Router(config-if)#ip address 172.16.0.1 255.255.0.0
```

```
Router(config-if)#no shutdown
```

```
Router(config-if)#exit
```

### Task 2, IP's on PC & Server

Now configure given IP's on PCs and Server and then ping the connections to test complete connectivity.

### Task 3, Activate Ftp services

Activate Ftp services on Ftp Server (as shown in figure 2)

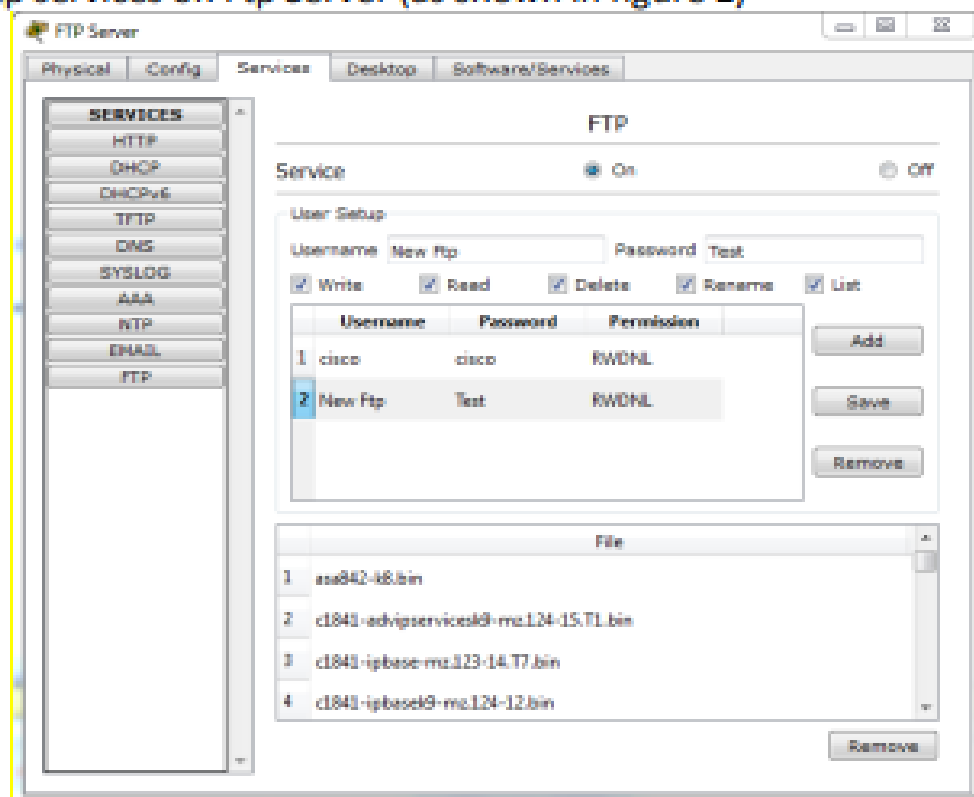


Figure 2

### Task 4, create a text file

Next go to PC0 and open Text Editor and create a .txt file named HelloWorld. (As shown in figure 3)

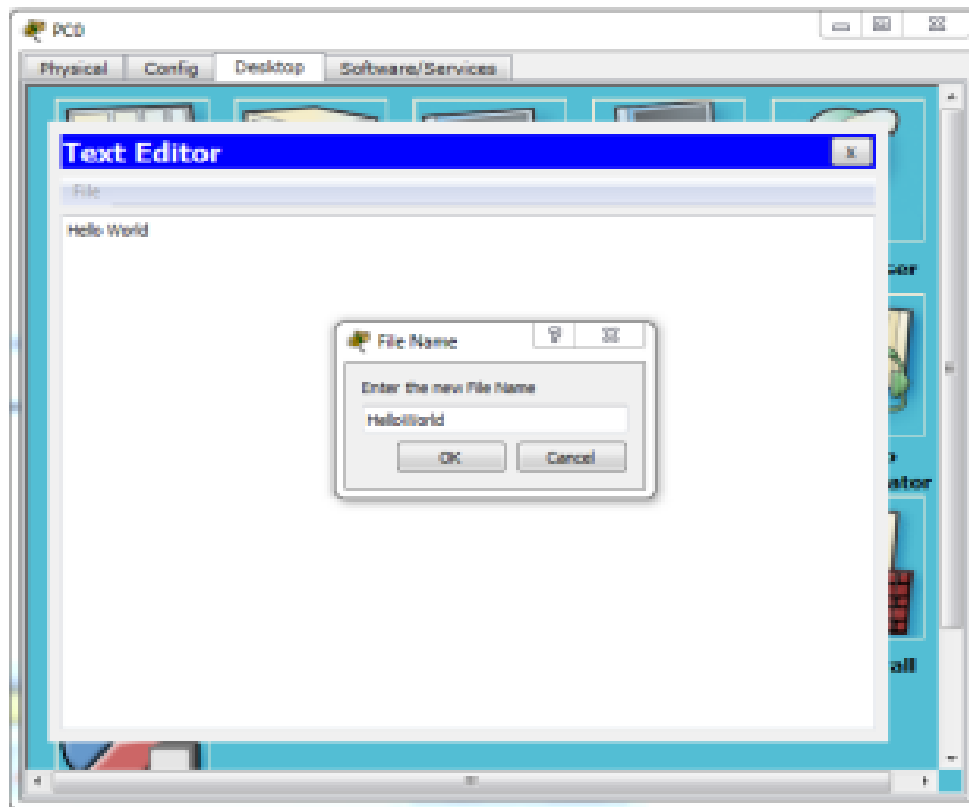


Figure 3

Open the Command Prompt of PC0 and type:

```
PC>dir
```

Check if your file has been saved to your PC directory.

Then connect to ftp server:

```
PC>ftp 192.168.1.2
```

Enter the username and password as created. Then type:

```
ftp>dir
```

Check the directory files on the FTP Server. Then upload your file:

```
ftp>put HelloWorld.txt
```

```
ftp>rename HelloWorld.txt MyWorld.txt
```

Renaming HelloWorld.txt

```
ftp>
```

[OK Renamed file successfully from HelloWorld.txt to MyWorld.txt]

Check on Server that your file has been successfully uploaded.

```
ftp>dir  
ftp>quit
```

Packet Tracer PC Command Line 1.0  
PC>221- Service closing control connection

### Task - Rename and Download the Uploaded File

Open the command prompt of PC1 and establish connection with FTP Server.

```
PC>ftp 192.168.1.2  
Enter the username and password.  
Check the directory and rename the file name HelloWorld.txt to MyWorld.txt  
ftp>dir  
ftp>rename HelloWorld.txt MyWorld.txt
```

```
Renaming HelloWorld.txt  
ftp>  
[OK Renamed file successfully from HelloWorld.txt to MyWorld.txt]  
ftp>quit
```

Packet Tracer PC Command Line 1.0  
PC>221- Service closing control connection

Next open the command prompt of PC2 and establish connection with FTP Server to download the recently renamed file.

```
PC>ftp 192.168.1.2  
Enter the username and password.
```

```
Check the directory and download the file named MyWorld.txt  
ftp>dir  
ftp>get MyWorld.txt
```

```
Reading file MyWorld.txt from 192.168.1.2:  
File transfer in progress...
```

```
[Transfer complete - 11 bytes]
```

```
11 bytes copied in 0.01 secs (1100 bytes/sec)  
ftp>quit
```

Packet Tracer PC Command Line 1.0  
PC>221- Service closing control connection.

Now Check that the file is in your PC directory.

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

1/1/1970 5:0 PM 11 MyWorld.txt
2/7/2106 11:28 PM 26 sampleFile.txt
37 bytes 2 File(s)
```

### Lab-9 Exercise:

Design a bus network which consists of 3 routers. Attach 3 PC's with each router and also attach a FTP Server with router 3. At the end of the configuration, all the attached devices of router 3 should be able to upload, download and rename text file. File name should be on student name.