

Experiment No. 10

Aim: To Perform File Transfer and Access using FTP using Packet tracer.

Requirements: Windows O.S and Cisco Packet Tracer.

Theory:

What is FTP (File Transfer Protocol)?

FTP (File Transfer Protocol) is a network protocol for transmitting files between computers over Transmission Control Protocol/Internet Protocol (TCP/IP) connections. Within the TCP/IP suite, FTP is considered an application layer protocol. In an FTP transaction, the end user's computer is typically called the local host. The second computer involved in FTP is a remote host, which is usually a server. Both computers need to be connected via a network and configured properly to transfer files via FTP. Servers must be set up to run FTP services, and the client must have FTP software installed to access these services.

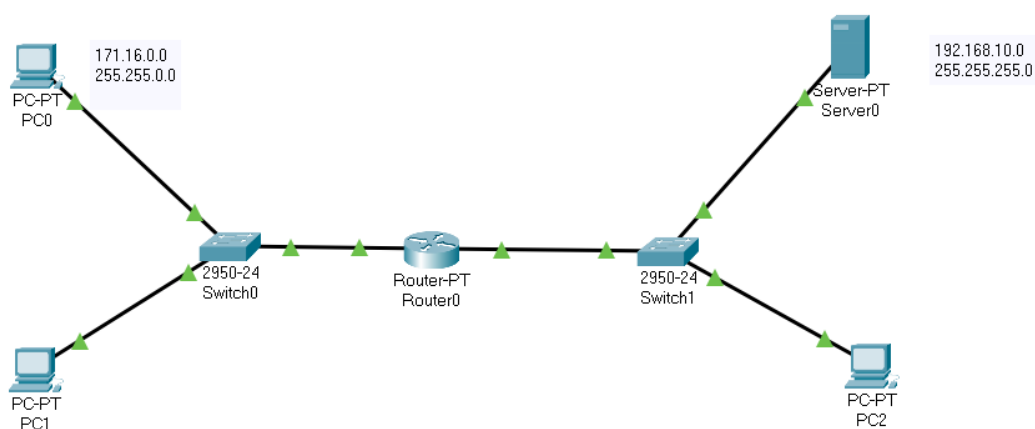
How does FTP work?

FTP is a client-server protocol that relies on two communications channels between the client and server: a command channel for controlling the conversation and a data channel for transmitting file content.

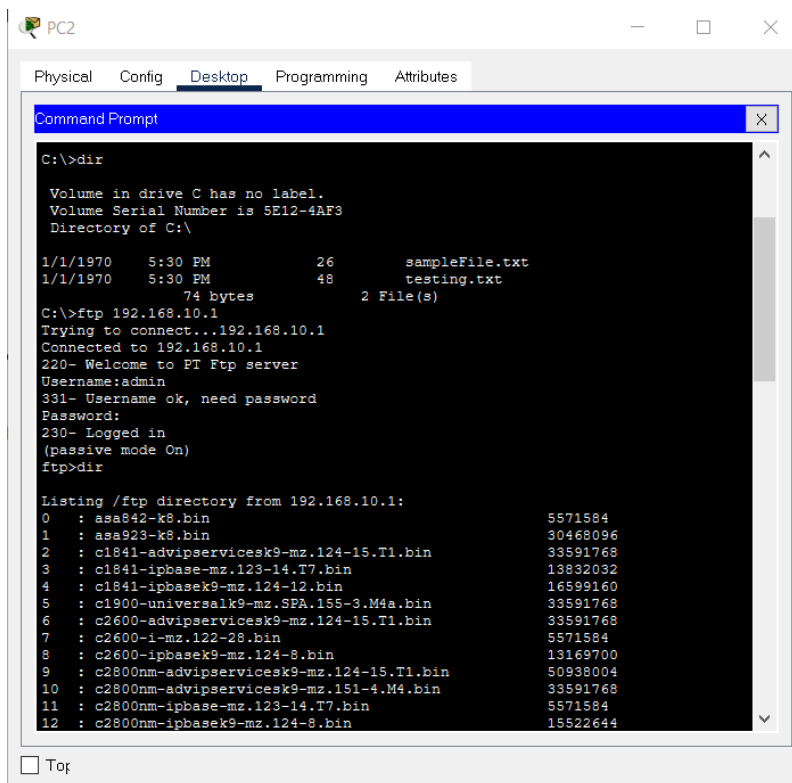
Here is how a typical FTP transfer works:

1. A user typically needs to log on to the FTP server, although some servers make some or all of their content available without a login, a model known as anonymous FTP.
2. The client initiates a conversation with the server when the user requests to download a file.
3. Using FTP, a client can upload, download, delete and rename, move and copy files on a server.

Output:



Uploading File (testing.txt) to the server from PC2 using FTP:



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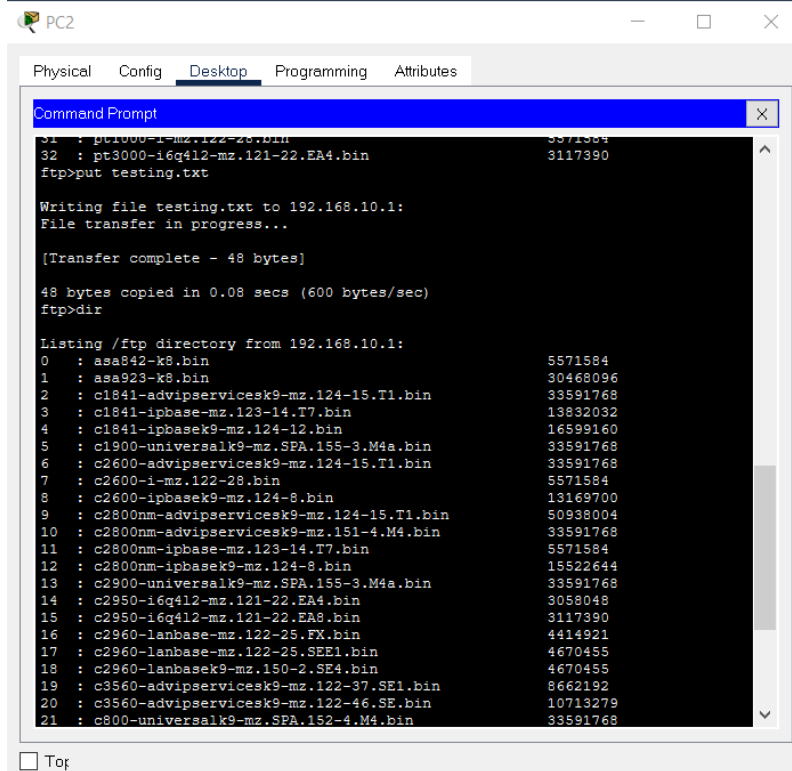
PC2
Physical Config Desktop Programming Attributes
Command Prompt
C:\>dir

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

1/1/1970    5:30 PM           26      sampleFile.txt
1/1/1970    5:30 PM           48      testing.txt
              74 bytes           2 File(s)

C:\>ftp 192.168.10.1
Trying to connect...192.168.10.1
Connected to 192.168.10.1
220- Welcome to FT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>dir

Listing /ftp directory from 192.168.10.1:
 0 : asa842-k8.bin                      5571584
 1 : asa923-k8.bin                      30468096
 2 : c1841-advipservicesk9-mz.124-15.T1.bin 33591768
 3 : c1841-ipbase-mz.123-14.T7.bin       13832032
 4 : c1841-ipbasek9-mz.124-12.bin       16599160
 5 : c1900-universalk9-mz.SPA.155-3.M4a.bin 33591768
 6 : c2600-advipservicesk9-mz.124-15.T1.bin 33591768
 7 : c2600-i-mz.122-28.bin              5571584
 8 : c2600-ipbasek9-mz.124-8.bin        13169700
 9 : c2800nm-advipservicesk9-mz.124-15.T1.bin 50938004
10 : c2800nm-advipservicesk9-mz.151-4.M4.bin 33591768
11 : c2800nm-ipbase-mz.123-14.T7.bin     5571584
12 : c2800nm-ipbasek9-mz.124-8.bin      15522644
  
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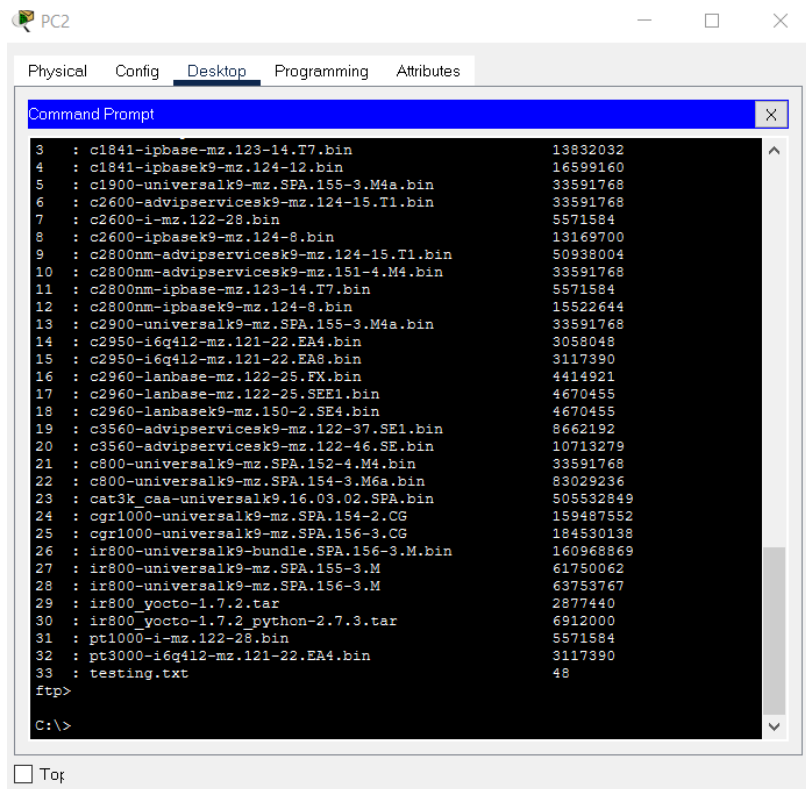
PC2
Physical Config Desktop Programming Attributes
Command Prompt
31 : c21000-i-mz.122-28.bin              5571584
32 : pt3000-16q412-mz.121-22.EA4.bin    3117390
ftp>put testing.txt

Writing file testing.txt to 192.168.10.1:
File transfer in progress...

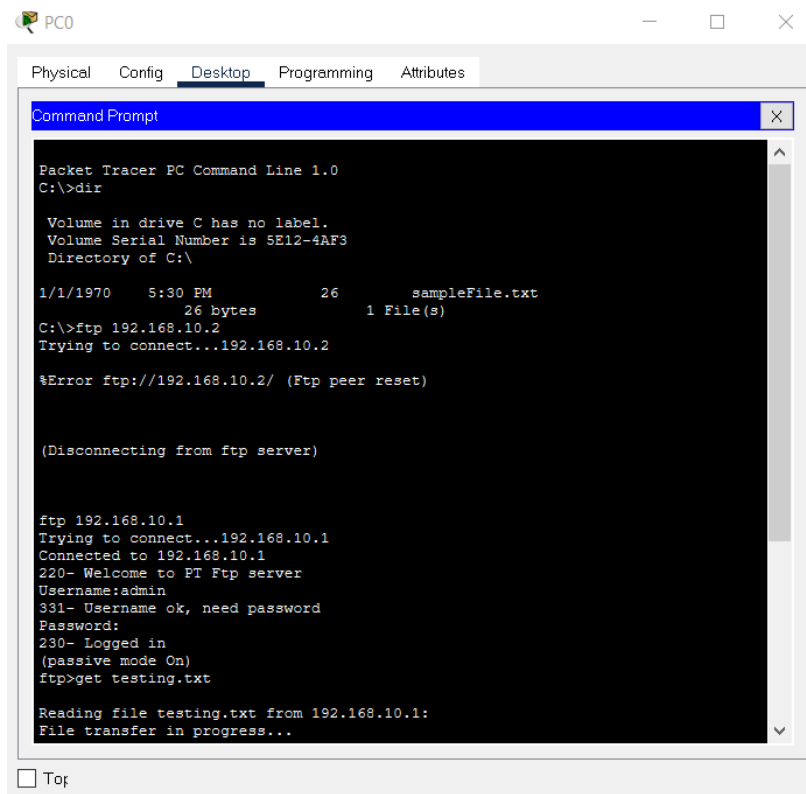
[Transfer complete - 48 bytes]

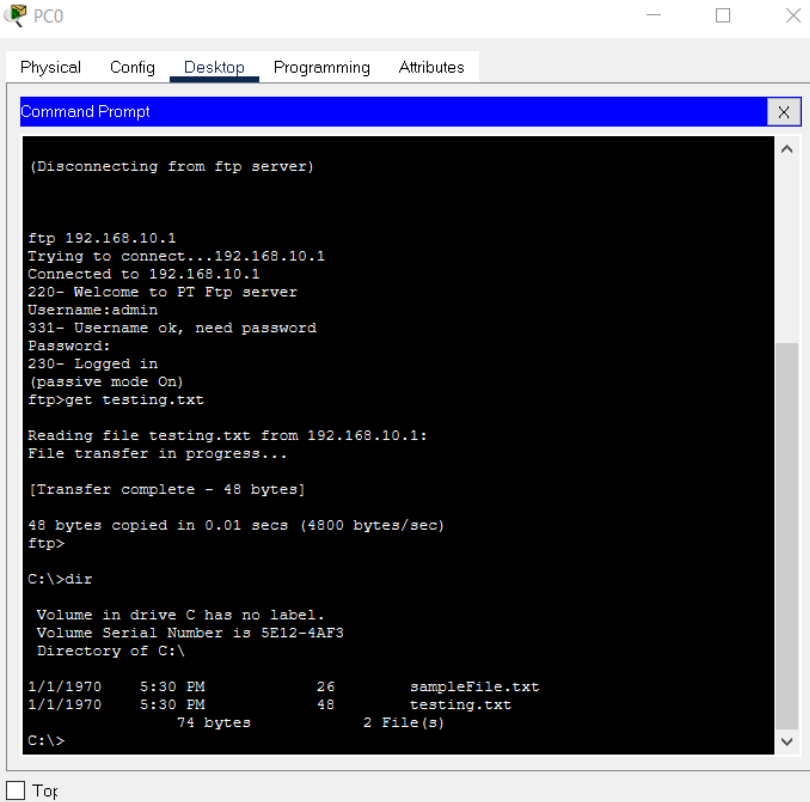
48 bytes copied in 0.08 secs (600 bytes/sec)
ftp>dir

Listing /ftp directory from 192.168.10.1:
 0 : asa842-k8.bin                      5571584
 1 : asa923-k8.bin                      30468096
 2 : c1841-advipservicesk9-mz.124-15.T1.bin 33591768
 3 : c1841-ipbase-mz.123-14.T7.bin       13832032
 4 : c1841-ipbasek9-mz.124-12.bin       16599160
 5 : c1900-universalk9-mz.SPA.155-3.M4a.bin 33591768
 6 : c2600-advipservicesk9-mz.124-15.T1.bin 33591768
 7 : c2600-i-mz.122-28.bin              5571584
 8 : c2600-ipbasek9-mz.124-8.bin        13169700
 9 : c2800nm-advipservicesk9-mz.124-15.T1.bin 50938004
10 : c2800nm-advipservicesk9-mz.151-4.M4.bin 33591768
11 : c2800nm-ipbase-mz.123-14.T7.bin     5571584
12 : c2800nm-ipbasek9-mz.124-8.bin      15522644
13 : c2900-universalk9-mz.SPA.155-3.M4a.bin 33591768
14 : c2950-i6q412-mz.121-22.EA4.bin    3058048
15 : c2950-i6q412-mz.121-22.EA8.bin    3117390
16 : c2960-lanbase-mz.122-25.FX.bin     4414921
17 : c2960-lanbase-mz.122-25.SE1.bin    4670455
18 : c2960-lanbasek9-mz.150-2.SE4.bin   4670455
19 : c3560-advipservicesk9-mz.122-37.SE1.bin 8662192
20 : c3560-advipservicesk9-mz.122-46.SE.bin 10713279
21 : c800-universalk9-mz.SPA.152-4.M4.bin 33591768
  
```



Downloading testing.txt from server to PC0 using FTP:





PC0

Physical Config Desktop Programming Attributes

Command Prompt

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(Disconnecting from ftp server)

ftp 192.168.10.1
Trying to connect...192.168.10.1
Connected to 192.168.10.1
220- Welcome to PT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get testing.txt

Reading file testing.txt from 192.168.10.1:
File transfer in progress...

[Transfer complete - 48 bytes]

48 bytes copied in 0.01 secs (4800 bytes/sec)
ftp>

C:\>dir

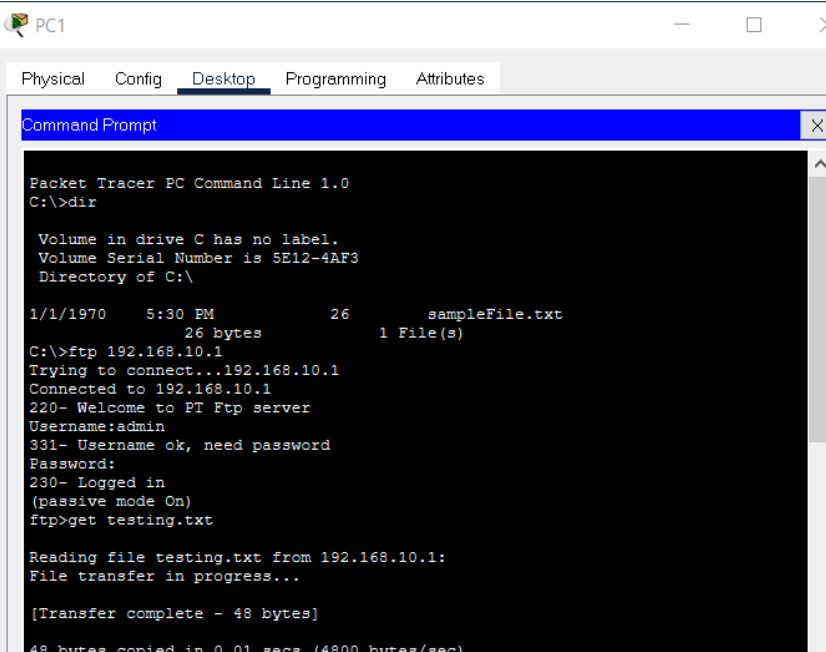
Volume in drive C has no label.
Volume Serial Number is 5E12-4AF3
Directory of C:\

1/1/1970    5:30 PM           26      sampleFile.txt
1/1/1970    5:30 PM           48      testing.txt
              74 bytes          2 File(s)

C:\>
```

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Downloading testing.txt from server to PC1 using FTP:



PC1

Physical Config Desktop Programming Attributes

Command Prompt

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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:\

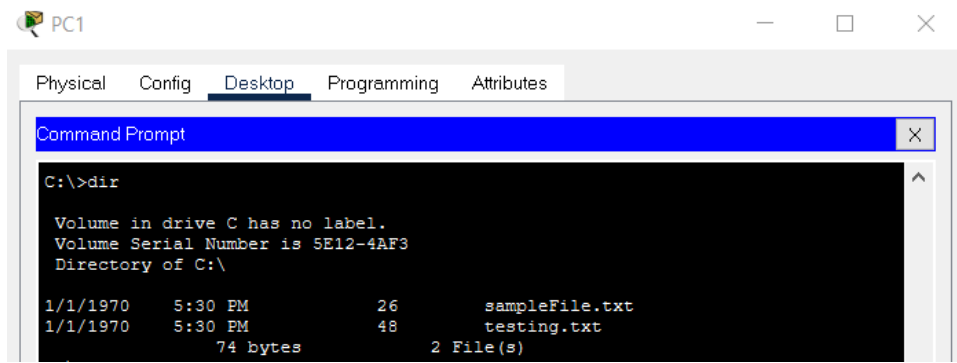
1/1/1970    5:30 PM           26      sampleFile.txt
              26 bytes          1 File(s)

C:\>ftp 192.168.10.1
Trying to connect...192.168.10.1
Connected to 192.168.10.1
220- Welcome to PT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get testing.txt

Reading file testing.txt from 192.168.10.1:
File transfer in progress...

[Transfer complete - 48 bytes]

48 bytes copied in 0.01 secs (4800 bytes/sec)
```



Conclusion: We have successfully access and transfer file from and to the server using FTP command in CISCO Packet tracer.