SNS College of Technology

Department of Information Technology

19CSB302-COMPUTER NETWORKS

UNIT-5 APPLICATION LAYER

File transfer Protocol

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WHAT IS FTP?

File transfer protocol or FTP is a standrad network of protocol used for the transfer computer files between a client and srever on a computer network based on transmision control protocol(TCP).

HISTORY OF FTP

The original specification for the file transfer protocol was written by Abhay Bhushan and published as RFC 114 on 14 April 1971.until 1980,FTP run on NCP,the predecessor of TCP/IP.

# WHERE WE USE FTP?

We can use FTP to exchange files between an account and a destop computer, r access online software archive.keep in mind, however that many FTP sites are heavily used and required serval attempts before connecting.

HOW DOES FTP WORKS?

When files are transferred through FTP, one of two action is happening-uploading or downloading.uploading involves transfering files from a personal computer.FTP use TCP?IP(transmission control protocol/internet transfer your filies.

Working Of FTP
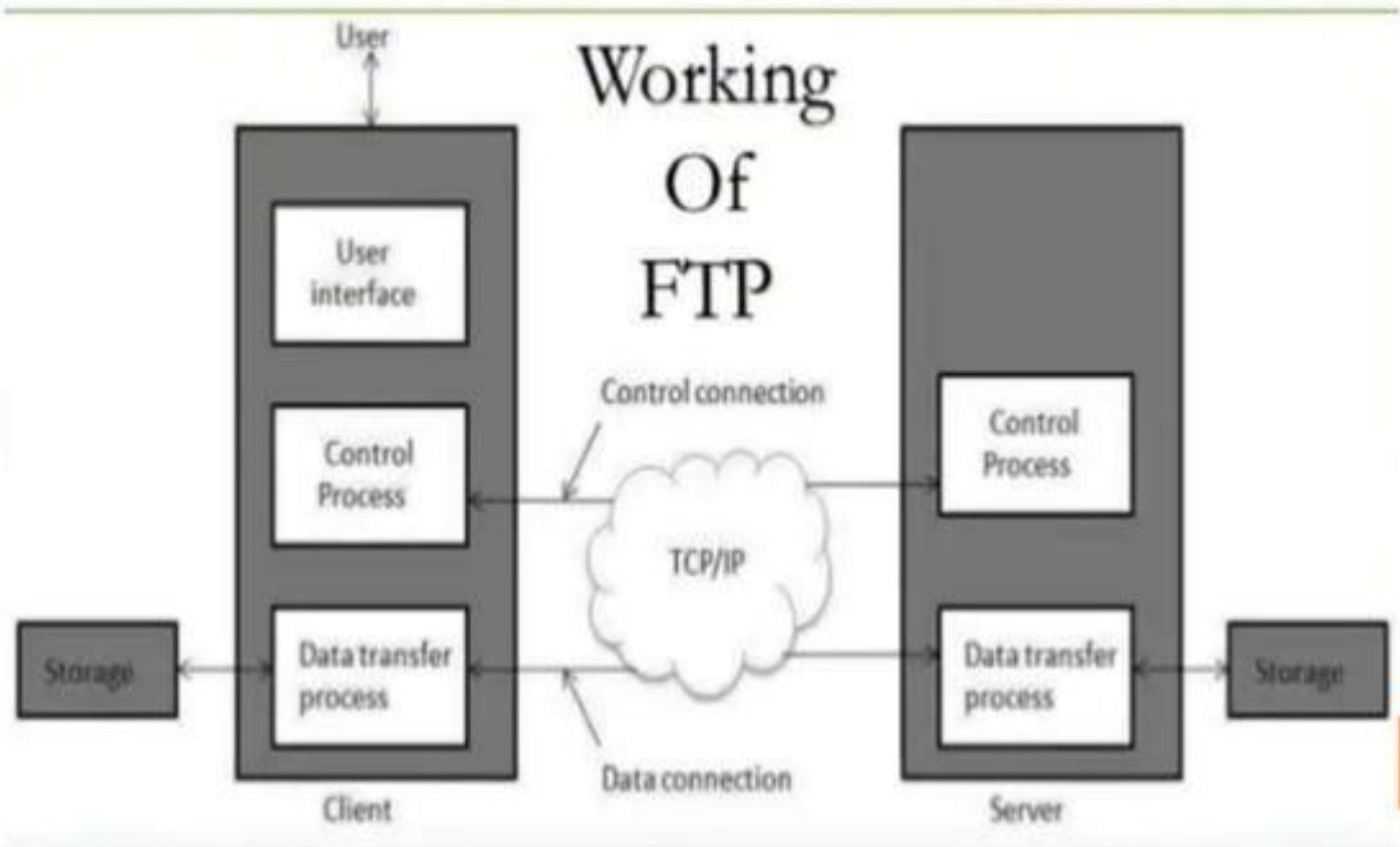
FTP ADDRESS

1. Press the enter.
2. A password dialog box should appear like the one below . I use one by domain as an example. Fall in your user name and password if needed.
3. Click the login or ok button depending on your browser.

ADVANTAGES

➤ Allows you to transfer multiple files as well as directories
➤ No size limitation on single transfer.
➤ Fastest transfer than HTTP.

DISADVANTAGES

➢ User names password and files are send in clear text.

➢ Filtering active FTP connection is difficult on your local machine.

➢ Hard to script jobs.

SMTP(SIMPLE MAIL TRANSFER PROTOCAL)

WHAT IS SMTP

- SMTP stands for simple mail transfer protoco.
- SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified and then the message text is transferred.
- Its objective as define by the original request for comment (RFC 821) was to transfer mail reliably and effciently.
- An RFC is a series of memoranda encompassing mew research, innovations and ideas related to internet technologies

- SMTP was designed to be independent of any particular transmission subsystem.

Requiring only a reliable and ordered data stream channel.

HISTORY OF SMTP

- 1960 various forms of one-to-one electronic message were used in conjunction with a mainframe computer.

- SMTP first iteration was published in RFC 821 in 1982 by john postel.

- SMTP only deal with text transfer.

- Later standards such as multipurpose internet mail extensions(MIME) were developed to encode binary files through SMTP.

SMTP WORKS

➤ SMTP perform mail transaction

➤ There are three steps to SMTP mail transaction.

The transcation is started with the mail command giving the sender identification.

e.g. MAIL<SP>FORM:<reverse-path><CRLF>

The MAIL command tells the SMTP receiver that a new mail transcation is starting.

The reverse path field holds the senders address path and mail box name.

If accepted the receiver sends the message 250 ok back to the sender signaling that it is ready to continue.

RCPT

- The second step of the transcation is the RCPT command.

E.g. RCPT<SP> TO: <forward path> <CRLF>

- This command give the forward path identifying one recipient.

- If accepted the receiver send 250 ok store the forward path.

- If a recipient is unknown a 550 failure is returned to the sender.

DATA

- The third step of an SMTP transcation is the DATA command
E.g. DATA<CRLF>
- If accepted by the receiver 354 is return.
- All succeeding lines are consider message text.
- Mail data also includes header items such as data, subject, to cc and form.
- The end of mail data is signified by a new line containing only a period after which another 250 ok is passed back to the sender.

DATA CONT.

- The end of mail indicator the mail transcation and tells the receiver to process the stored recipients and data.

- The data command should only fail if the transcation was incomplete .

- In the case of no recipients or unavailable resources.

THANK YOU