

## Assignment No. 4

## Introduction to server administration and configuration of Server

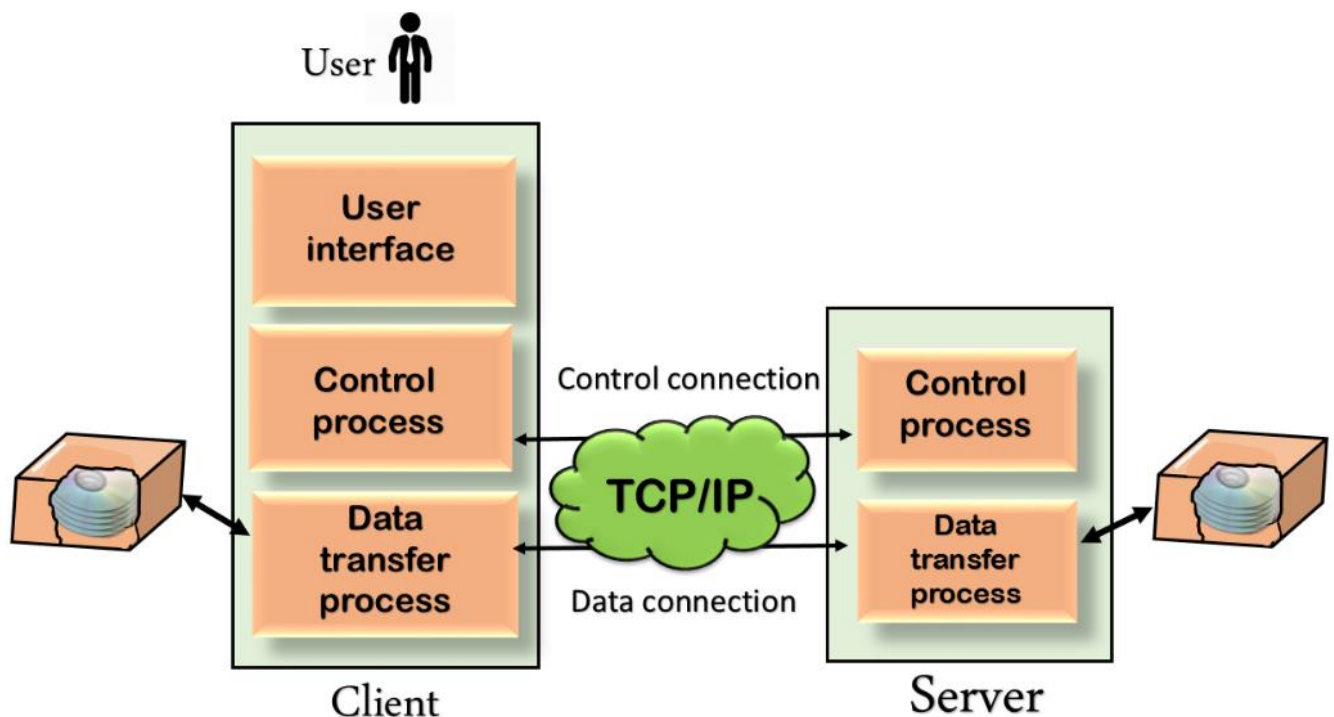
**Problem Statement :**

Server administration commands and their applications

- a) FTP
- b) Web Server

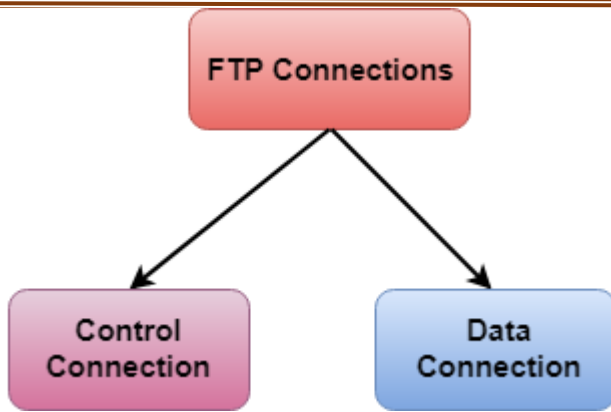
**Theory:****FTP**

- FTP stands for File transfer protocol.
- FTP is a standard internet protocol provided by TCP/IP used for transmitting the files from one host to another.
- It is mainly used for transferring the web page files from their creator to the computer that acts as a server for other computers on the internet.
- It is also used for downloading the files to computer from other servers.

**Mechanism of FTP**

The above figure shows the basic model of the FTP. The FTP client has three components: the user interface, control process, and data transfer process. The server has two components: the server control process and the server data transfer process.

**There are two types of connections in FTP:**

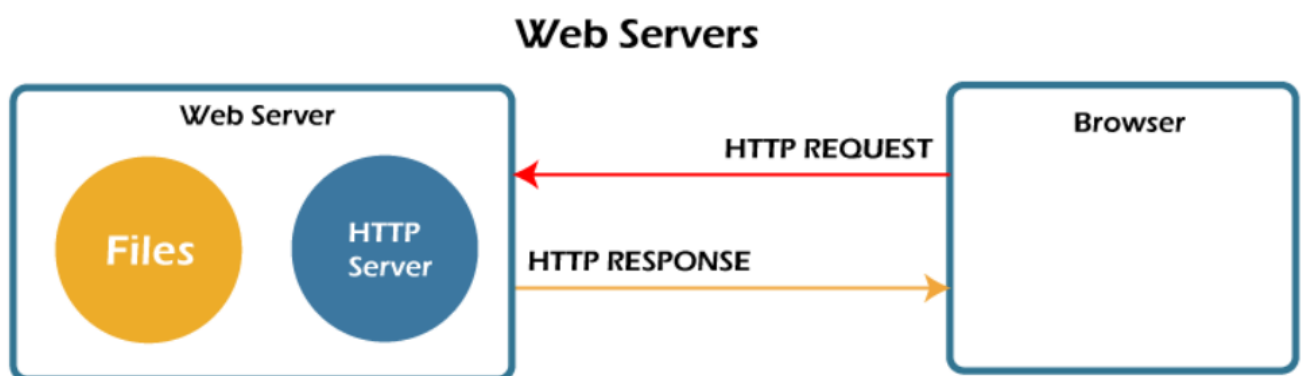


- **Control Connection:** The control connection uses very simple rules for communication. Through control connection, we can transfer a line of command or line of response at a time. The control connection is made between the control processes. The control connection remains connected during the entire interactive FTP session.
- **Data Connection:** The Data Connection uses very complex rules as data types may vary. The data connection is made between data transfer processes. The data connection opens when a command comes for transferring the files and closes when the file is transferred.

#### FTP Clients

- FTP client is a program that implements a file transfer protocol which allows you to transfer files between two hosts on the internet.
- It allows a user to connect to a remote host and upload or download the files.
- It has a set of commands that we can use to connect to a host, transfer the files between you and your host and close the connection.
- The FTP program is also available as a built-in component in a Web browser. This GUI based FTP client makes the file transfer very easy and also does not require to remember the FTP commands.

#### Web Server



Web pages are a collection of data, including images, text files, hyperlinks, database files etc., all located on some computer (also known as server space) on the Internet. A web server is dedicated software that runs on the server-side. When any user requests their web browser to run any web page, the webserver

places all the data materials together into an organized web page and forwards them back to the web browser with the help of the Internet. Therefore, we can conclude that: -

A web server is a dedicated computer responsible for running websites sitting out on those computers somewhere on the Internet. They are specialized programs that circulate web pages as summoned by the user. The primary objective of any web server is to collect, process and provide web pages to the users.

This intercommunication of a web server with a web browser is done with the help of a protocol named HTTP (Hypertext Transfer Protocol). These stored web pages mostly use static content, containing HTML documents, images, style sheets, text files, etc. However, web servers can serve static as well as dynamic contents. Web Servers also assists in emailing services and storing files. Therefore it also uses SMTP (Simple Mail Transfer Protocol) and FTP (File Transfer Protocol) protocols to support the respective services. Web servers are mainly used in web hosting or hosting the website's data and running web-based applications.

The hardware of the web servers are connected to the Internet that manages the data exchange facility within different connected devices. In contrast, the software of web server software is responsible for controlling how a user accesses delivered files. Typically, web server management is an ideal example of the client/server model. Therefore, it is compulsory for all computers that host websites (whether with state or dynamic web page content) to have web server software.

### **How do web servers work?**

The term web server can denote server hardware or server software, or in most cases, both hardware and software might be working together.

**Conclusion** – FTP is a standard internet protocol provided by TCP/IP used for transmitting the files from one host to another. A web server is a dedicated computer responsible for running websites sitting out on those computers somewhere on the Internet. These are essential terms in file transfer and web service access.