### BASIC OF SERVER

### INTRODUCTION TO SERVER

A **server** is a system (software and suitable computer hardware) that responds to requests across a computer network to provide, or help to provide, a <u>network service</u>. Servers can be run on a dedicated computer, which is also often referred to as "the server", but many networked computers are capable of hosting servers. In many cases, a computer can provide several services and have several servers running.



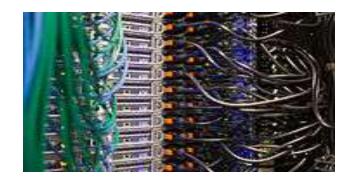
• The term *server* is used quite broadly in <u>information technology</u>. Despite the many server-branded products available (such as server versions of hardware, software or operating systems), in theory any computerized process that shares a resource to one or more client processes is a server. To illustrate this, take the common example of <u>file sharing</u>. While the existence of files on a machine does not classify it as a server, the mechanism which shares these files to clients by the operating system is the server.

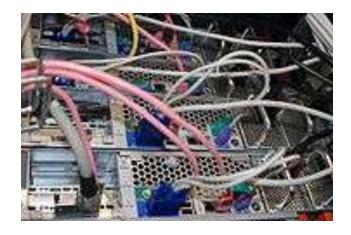
Similarly, consider a web server application (such as the <u>multiplatform</u> "<u>Apache HTTP Server</u>"). This web server software can be *run* on any capable <u>computer</u>. For example, while a <u>laptop</u> or personal computer is not typically known as a server, they can in these situations fulfill the role of one, and hence be labeled as one. It is, in this case, the machine's role that places it in the category of server.

In the hardware sense, the word *server* typically designates computer models intended for hosting <u>software applications</u> under the heavy demand of a <u>network</u> environment. In this server configuration one or more machines, either a computer or a <u>computer</u> <u>appliance</u>, share information with each other with one acting as a <u>host</u> for the other

### SERVER HRDWARE

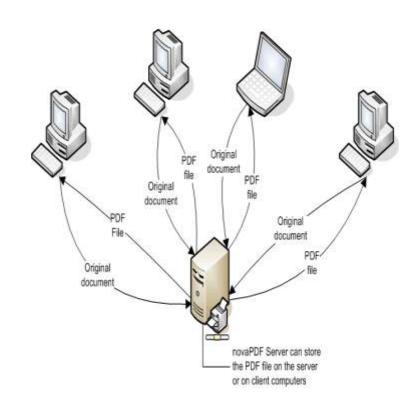
Hardware requirement for servers vary, depending on the server application. Absolute CPU speed is not quite as critical to a server as it is to a desktop machine. Servers' duties to provide service to many users over a network lead to different requirements such as fast network connections and high I/O throughout. Since servers are usually accessed over a network, they may run in headless mode without a monitor or input device. Processes that are not needed for the server's function are not used. Many servers do not have a graphical user interface (GUI) as it is unnecessary and consumes resources that could be allocated elsewhere. Similarly, audio and **USB** interfaces may be omitted.





# WHAT SEVER PROVIDES

- In the client/server programming model, a server is a program that awaits and fulfills requests from client programs in the same or other computers. A given application in a computer may function as a client with requests for services from other programs and also as a server of requests from other programs.
- Specific to the Web, a web server is the computer program (housed in a computer) that serves requested html pages or files. A Web *client* is the requesting program associated with the user. The Web **Browser** in your computer is a client that requests HTML files from Web servers.



#### TYPES OF SERVER

- Application server a server dedicated to running certain software applications
- <u>Catalog server</u> a central search point for information across a distributed network
- <u>Communications server</u> carrier-grade computing platform for communications networks
- Compute server, a server intended for intensive (esp. scientific) computations
- <u>Database server</u> provides database services to other computer programs or computers
- <u>Fax server</u> provides fax services for clients
- <u>File server</u> provides remote access to files
- Game server a server that video game clients connect to in order to play online together

### TYPES OF SERVER

- Home server a server for the home
- Mail server handles transport of and access to email
- <u>Mobile Server</u> or Server on the Go is an Intel Xeon processor based server class laptop form factor computer.
- Name server or DNS
- <u>Print server</u> provides printer services
- Proxy server acts as an intermediary for requests from clients seeking resources from other servers
- <u>Sound server</u> provides multimedia broadcasting, streaming.
- <u>Stand-alone server</u> a server on a Windows network that neither belongs to nor governs a Windows domain
- <u>Web server</u> a server that HTTP clients connect to in order to send commands and receive responses along with data contents

#### SERVER OPERATING SYSTEM

- Server-oriented operating systems tend to have certain features that make them more suitable for the server environment, such as:
- GUI not available or optional
- Ability to <u>reconfigure</u> and update both hardware and software to some extent without restart
- Advanced <u>backup</u> facilities to permit regular and frequent online backups of critical <u>data</u>
- <u>Transparent</u> data transfer between different <u>volumes</u> or devices
- Flexible and advanced networking capabilities
- Automation capabilities such as <u>daemons</u> in UNIX and <u>services</u> in Windows
- Tight system security, with advanced user, resource, data, and memory protection.

Server-oriented operating systems can, in many cases, interact with hardware sensors to detect conditions such as overheating, processor and disk failure, and consequently alert an operator or take remedial measures themselves.

### DIFFERENT SIZE OF SERVER

- Rack server
- Tower server
- Miniature (home) servers
- Mini Rack server
- Blade server
- Mobile server

## CONCLUSION

From the above basic study, Server is a system (<u>software</u> and suitable <u>computer hardware</u>) that responds to requests across a <u>computer network</u> to provide, or help to provide, a <u>network service</u>s.

- It has provided a Reduction in usage of paper Records.
- Communication and security to data has been increased
- Ease of reliability have been added by server for users
- Managing data is now much more easier.