

NETWORKING & SYSTEM ADMINISTRATION LAB**Name: Anaya Susan George****Roll No: 25****Batch: A****Date: 19/03/2022****Experiment No.: 2****Aim**

Require a comparative study of specifications of Desktops and Server class computers.

Procedure**Desktops**

A desktop computer is a personal computer designed for regular use at a single location on or near a desk due to its size and power requirements. The most common configuration has a case that houses the power supply, motherboard (a printed circuit board with a microprocessor as the central processing unit, memory, bus, certain peripherals and other electronic components), disk storage (usually one or more hard disk drives, solid state drives, optical disc drives, and in early models a floppy disk drive); a keyboard and mouse for input; and a computer monitor, speakers, and, often, a printer for output. The case may be oriented horizontally or vertically and placed either underneath, beside, or on top of a desk.

Server class

In computing, a server is a piece of computer hardware or software (computer program) that provides functionality for other programs or devices, called "clients". This architecture is called the client–server model. Servers can provide various functionalities, often called "services", such as sharing data or resources among multiple clients, or performing computation for a client. A single server can serve multiple clients, and a single client can use multiple servers. A client process may run on the same device or may connect over a network to a server on a different device.

Typical servers are database servers, file servers, mail servers, print servers, web servers, game servers, and application servers. Client–server systems are usually most frequently implemented by the request–response model: a client sends a request to the server, which performs some action and sends a response back to the client, typically with a result or acknowledgment. Designating a computer as "server-class hardware" implies that it is specialized for running servers on it. This often implies that it is more powerful and reliable than standard personal computers, but alternatively, large computing clusters may be composed of many relatively simple, replaceable server components.

Server vs Desktop

The operating system of a server and a desktop computer is very different. The operating system of a server can handle multiple processes and connections at the same time (depending on the hardware). There are certain features that a server-oriented operating system has, but desktop computers do not. The graphical user interface is not there in the server operating system, or it is optional. A server operating system has the ability to update software and hardware without even restarting, whereas in a desktop operating system, you need to restart it for the changes to take effect. The operating system of servers has backup facilities to take regular online backups of critical data. The security of a server operating system is far better than a desktop computer operating system. The server also has advance and flexible network capabilities as compared to desktop computers.

The processors used by a desktop computer are majorly Intel Core series, whereas the processors used by a server is Intel Xeon. The Xeon processors are designed to work with multiple other processors because they need to communicate with many other processors in the server stack. So, the motherboard of a server can have multiple processors, but the motherboard of a desktop computer will have only one processor. A server processor is capable of running far more applications simultaneously than a desktop. Xeon processors support Error Code Correcting (ECC) RAM because the servers need to be up and running all the time, and if there is a memory error, ECC ram detects the issue and prevents the server from shutting down. The Intel Core processor used in desktop computers does not support ECC RAM, but they support AMD processors.