NETWORKING & SYSTEM ADMINISTRATION LAB

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Aim

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

Procedure

Desktops

A desktop computer is a computer that fits on or under a desk. They utilize peripheral devices for interaction, such as a keyboard and mouse for input, and display devices like a monitor, projector, or television. Desktop computers can have a horizontal or vertical (tower) form factor, or be combined with a monitor to create an All-in-One computer. Unlike a laptop, which is portable, desktop computers are generally made to stay at one location. 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 computer program or a device that provides functionality for called clients which are other programs or devices. This architecture is called the client–server model. A single overall computation is distributed across multiple processes or devices. Servers can provide various functionalities called services. These services include sharing data or resources among multiple clients, or performing computation for a client. Multiple clients can be served by a single server, and a single client can use multiple servers. A client process may run on the same device. It can also connect over a network to a server to run on a different device. Example of servers may

include database servers, mail servers, print servers, file servers, web servers, application servers, and game servers.

Most frequently client–server systems are implemented by the request–response model., i.e., a client sends a request to the server. In this model server performs some action and sends a response back to the client, typically with a result or acknowledgement. Designating a computer as server-class hardware means that it is specialized for running servers on it. This implies that it is more powerful and reliable than standard personal computers. But large computing clusters may be composed of many relatively simple, replaceable server components.

Server vs Desktop

A desktop is a personal computer intended for personal use, while server is a dedicated computer that runs a software service that can be obtained by other computers in the network. Servers are normally made up of powerful components such as faster CPUs, high performing RAM and larger hard disks than desktop computers, since it needs to satisfy large number request at a given time. Furthermore, servers contain special server oriented OS that is capable of maintaining backups and providing improved security while the OS contained in desktop normally do not offer or offer simple versions of these services. 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.