NETWORKING & SYSTEM ADMINISTRATION LAB

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Aim

Prepare a comparative study of specifications of desktops and server class computers.

Procedure

Desktop Computer

A desktop computer system typically runs a user-friendly operating system and desktop applications to facilitate desktop-oriented tasks. In contrast, a server manages all network resources. Servers are often dedicated (meaning it performs no other task besides server tasks). Because a server is engineered to manage, store, send and process data 24-hours a day it has to be more reliable than a desktop computer and offers a variety of features and hardware not typically used in the average desktop computer.

Server Class Computers

A server is a computer or system that provides resources, data, services, or programs to other computers, known as clients, over a network. In theory, whenever computers share resources with client machines they are considered servers. There are many types of servers, including web servers, mail servers, and virtual servers. a server definition is a type of computer that shares information with other computers. There are different types of servers that offer various services to varying sizes of networks.

Comparison between Desktop and Server Class Computer

Unlike desktops, servers are dedicated and designed to perform no other tasks. For both businesses and consumers, server equipment is much more expensive than desktop equipment. The processors found in a desktop computer are not as powerful as those found in servers, which support multiple processors, cores, and threads at one time. Servers also support advanced random-access memory (RAM), more cache memories, and storage interconnect technology**.**

Fundamentally, there are no differences between a computer and a server. Both are designed to run exactly the same. You can run the same software on them.

Differences:

- Servers are primarily designed to be operated in server rooms, therefore they are made in standard 19″ rack chassis. You can stack them together nicely.
- Servers are designed to run 24/7 even in the case of failures. They have redundand components - two power supplies, pairs of disks, double network cards etc. You can replace components while the server is in operation.
- Servers have better cooling - lots of fans which can run pretty loud if aggravated.
- Servers usually have better quality components than consumer hardware, which is why they are more expensive.
- Servers support plugging more memory, CPUs and disks than ordinary computers.
- Servers don’t need graphics or sound and usually don’t have it. On the other hand, graphics and sound is very important for PCs and laptops.

Server	**Desktop**
It has multiple processes for faster access	It has a single processor in most cases
The files are stored at a secure location	The files are present at the individual’s desktop
It has mirrored hard drives which have the backup of the data on the servers	It has a single hard drive, if it fails you lose the data
It requires more than one power supply	It has only one power supply
It is more secure to viruses, malware and cyber threats	It is vulnerable to viruses, malware and cyber threats
The hardware parts are costly	The hardware parts are not costly
It offers higher processing power, memory and storage	It has lower processing power, memory and storage