Differences Between a Business PC and a Server

Technology has made leaps and bounds over the last couple of years, thanks to a series of ongoing innovations. Not only have hardware and software advancements been made, but the pandemic has forced your average joe has had to learn how to operate said tech more effectively than ever.

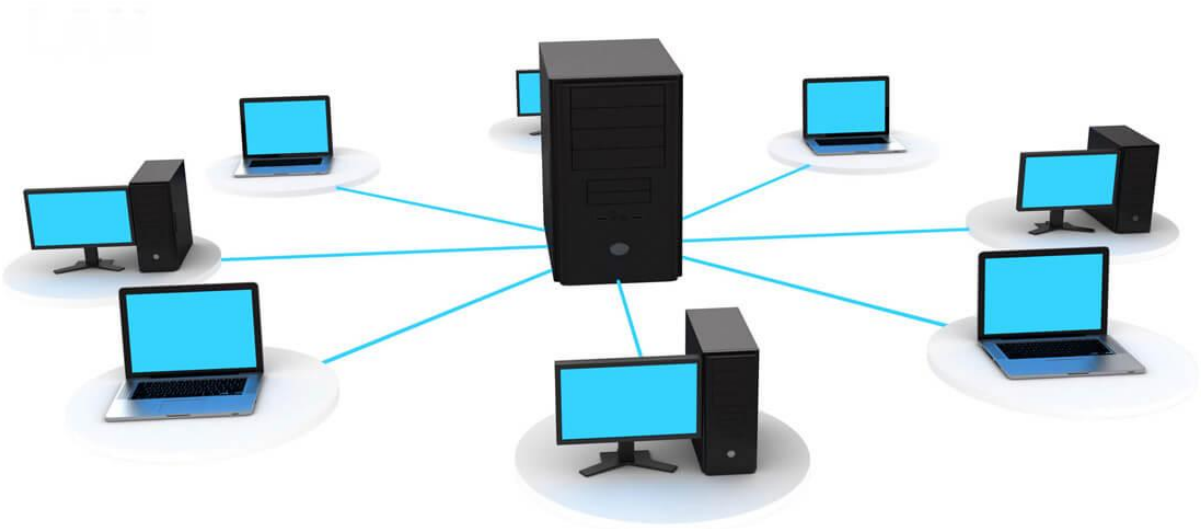
Those of us who may not have needed to be “tech-savvy” before suddenly found ourselves having to set up in-home work sites, connecting our kids to their school work via tablet, laptop, smartphone, and more. It can be overwhelming at times and certainly confusing; I know I’ve been lost at several points over the last couple of years.

For a company with many workers from home, having a strong server or network is a big piece of the puzzle of productivity. But you may be wondering, “what are the differences between a business PC and a server?” This article will go over the differences between the two and see what makes each unique to help you decide which is right for you and your company.

What is a Server?

There are several different types of servers, and they are all very similar to desktop computers. However, a server's hardware is a much stronger type of computer with the specific purposes of running software and storing data.

These servers are usually accessed through a network and are also known as The Host. The software’s primary purpose is to act as a data repository and respond to requests from other programs. A server’s job is to provide network resources and privileges to other client members of a network.



Mail Servers

A mail server, also called an email server, is essentially the online version of the mailman. This is one of the most common types of servers used today. It is a program or application that is in charge of handling messages. It receives and delivers mail, which is its primary function. When you send an email, your message will typically go through several different servers before reaching its target, but the process is so fast that it makes it look simple.

Proxy Servers

A Proxy server functions as an intermediary between the client and what websites they are browsing. The proxy server gives the information to said website, takes in the information given back, and relays it to you. These are typically used in schools and company computers that need a little extra security when browsing the web.

Application Server

An Application Server is a type of middleware server designed specifically to host, download and manage applications. It can reduce the size and complexity of certain programs, control the data flow for increased performance, and provide security to applications.

Client Servers (also known as Client-Server Model)

The Client-Server Model is the bridge through which clients access services and resources through a central computer. Users can access them through a WAN (wide area network) or a LAN (local area network). The Client and Server communicate via a request-response messaging pattern. The client will send a request, and the server will respond.

One of the key benefits of this model is having access to information and programs on a single server instead of across multiple devices. In addition, troubleshooting can often be easier when IT professionals can do it remotely. This typically helps organizations save money because less maintenance is required.

What is a Business PC?

The type of computer you may purchase for your business tends to vary drastically from what you might buy for personal use. While they may look no different than the computer on your desk at home, Business class computers are typically made with higher grade and name-brand hardware. In addition, they are built to last and are tested much more vigorously than consumer computers.

Strength and Speed

Business-grade computers have more memory space and a more powerful processor than a home computer. Business-grade computers typically need large amounts of memory, usually 500GB to 1000GB with dual-core or quad-core processors to handle large tasks. Rendering, saving large graphics and documents, and networking with other computers are all things that could drastically slow performance without the proper processing power.

Security

Certain companies have data privacy regulations to comply with and may have high standards for security. For example, business PC's typically have higher security features built into them. In addition, brands like Apple pride themselves on the security of their hardware and software.

Cost-Efficient

A computer that runs faster and more efficiently will save time and, therefore, money. Those precious seconds waiting for a web page to load, program to launch, or file to download can add up to hours and hours of precious wages. Likewise, ensuring your data is secure and easily accessible for maintenance will save both time and money. The reliability offered by business-class computers ensures that your PC will last for years to come, and with minimal maintenance at that.

PC vs. Server

While some smaller businesses try to use a basic desktop as a replacement for a server, you simply can not compete with real server hardware for dealing with large volumes of data. The technologies behind each one are engineered for very different purposes. A server is connected to other devices and client programs using a router, switches, or other middle-man style

devices. So while it may be tempting to save money using a desktop, the benefits of using actual server hardware tend to far outweigh the cost.

Daily Tasks

Your typical business-grade computer is designed to handle the everyday tasks of the average consumer. A desktop computer consists of a monitor, mouse, keyboard, and tower. They typically run applications and facilitate desktop-oriented tasks such as web browsing, emailing, and processing documents. Unfortunately, a desktop is not made for running 24/7 and should periodically be turned off or put into standby to save power and reduce the wear of components.

On the other hand, servers usually handle the high-end processing work and generally run unattended without using a monitor or audio device. As a result, larger servers need to be capable of running for long periods without interruption.

Security & Updates

Without proper storage, files saved on individual desktops can often become disjointed compared to saving files in one secure location on a server. Likewise, updates that roll out often need to be implemented one computer at a time versus making vast changes across the entire network. In addition, individual machines may be more vulnerable to malware and viruses than servers.

A server also often has backup (also called “mirrored”) hard drives and can recover information in the event of a system failure or loss of power. A desktop has a single hard drive, and if it fails, all the information is lost permanently.

Which Option Is Best For You?

A Business PC and a Server each have practical uses, but those uses can be vastly different. While it is possible, trying to turn one into the other is not ideal. There is a lot to consider when choosing a desktop computer, and even more when considering a server.

Take the time to read up on each brand, its pros and cons, and how it may relate to you and your business needs. Don’t let cost be the deciding factor, as it may come back to bite you in the long run.