



Virtualization vs. Cloud Computing

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What is Virtualization?

Virtualization enables users to run multiple operating systems, programs, and applications simultaneously on the same machine. More specifically, desktop users use the virtualization process when they want to run applications designed for different operating systems without the need to switch computers. For instance, some Mac users may need to run programs that are only designed to run on Windows. In addition, administrators of servers have the ability to segment servers into smaller parts and use them more efficiently. Otherwise, without virtualization, each application would need a separate machine, and this prevents administrators and companies from taking advantage of the full capacity of the machine. Virtualization allows you to split the resources of a single server for multiple purposes. More importantly, software developers can test applications in different environments without the need of setting up different computers. Hence, they can simply shut down the virtual machine and restart it at a previous state in case of a failure, without damaging the computer.

What is Cloud Computing?

Cloud Computing enables users to access data, which is stored on a remote server, from anywhere in the world the moment they need it with the prerequisite of having an internet connection. Cloud Computing has many uses, and it is widely used by businesses worldwide. For instance, cloud storage and backup enable files to be shared and synced across devices instantly which also serves as a solution against server crashes or data loss. Furthermore, Software as a Service (SaaS) solutions use the web to provide a service such as Microsoft 365, QuickBooks online and Salesforce. Lastly, cloud hosting enables email services, application hosting and web-based phone systems.



What are the differences?

Virtualization	Cloud Computing
Virtualization is practically software that manipulates hardware	Cloud Computing is a service that is made possible by virtualisation
After Virtualization occurs and servers are cut into pieces, administrators connect those spaces with the internet and then rent that space to businesses	The rented space to businesses is in the form of Cloud Computing.
Virtualisation is the foundation element of cloud computing	Cloud Computing often relies on virtualization to deliver its services.
Virtualization makes private clouds possible	Private Clouds - in contrast with public clouds (such as Netflix) - allows the users to control and manage their own systems while paying only for what they use.

Does your business need a Virtualization solution?

Before determining whether your business needs a virtualization solution, it is essential to conduct an in-depth analysis and assess your organization’s needs and requirements. **IBSCY Ltd currently offers a Technology Audit service** in which its expert technicians create reports about a company’s full infrastructure and hardware to determine possible security leaks or general threats. Also, with a regular technology audit, companies ensure that they are working with the latest technologies that can help them stay ahead of the competition. Hence, an audit can help you determine whether you utilize the full capacity of your servers or you need virtualization to extract the full potential from them.

Does your business need a Cloud Computing solution?

In general, **Cloud Computing is most suitable for companies** that want to outsource their day-to-day administration and free up internal IT resources. Also, the cloud can be set up really easily without the need for additional hardware, servers, or licenses. More importantly, the cloud is a very scalable solution, and it is especially pertinent for companies that hire or dismiss personnel at a rapid pace. This feature is especially useful as companies **pay only the consumption they use** while enjoying advanced levels of security.