Virtualization & Cloud Computing

What is virtualization?

In a nutshell, virtualization is software that separates physical infrastructures to create various dedicated resources

Virtualization software makes it possible to run multiple operating systems and multiple applications on the same server at the same time.

Virtualization makes servers, workstations, storage and other systems independent of the physical hardware layer

 **Maximize resources**— Virtualization can reduce the number of physical systems you need to acquire, and you can get more value out of the servers.  Most traditionally built systems are underutilized. Virtualization allows maximum use of the hardware investment.

 **Multiple systems**— With virtualization, you can also run multiple types of applications and even run different [operating systems](http://www.businessnewsdaily.com/5728-windows-xp-upgrade.html) for those applications on the same physical hardware.

 **IT budget integration**— When you use virtualization, management, administration and all the attendant requirements of managing your own infrastructure remain a direct cost of your IT operation

What is Cloud computing?

Cloud computing is the delivery of shared computing resources, software or data — as a service and on-demand through the Internet

Essentially, virtualization differs from cloud computing because virtualization is software that manipulates hardware, while cloud computing refers to a service that results from that manipulation

 **Outsourced IT**— The day-to-day administration, care and feeding of supporting systems move away from you to the service provider. This could free up internal IT resources for higher-value business support and allow you to put IT budget dollars toward efforts that advance your business.

 **Quick setup —**Cloud startup is relatively quick and easy. Plus, servers, appliances and software perpetual licenses go away when you use such a service.

 **Pay-as-you-go**— An example could be found in [Software-as-a-Service (SaaS)](http://www.businessnewsdaily.com/4793-what-is-saas-software-as-a-service.html) applications available today that allow the off-loading of basic IT requirements to cloud service providers.  You pay for what you need and use. But you do not have to continue to invest in many of the products used to support the network and systems, such as spam/anti-virus, encryption, data archiving, email services and off-site storage.

 **Scalability** — By using the cloud, you can also temporarily scale your IT capacity by off-loading high-demand compute requirements to an outside provider. As a result, as mentioned above, you pay for only what you need and use, only at the time when you need it