

## VIRTUALIZATION

Virtualization can be described as a method to allow multiple virtual machines/servers to run on one physical machine, where the resources of that single machine are shared among all virtual servers. In addition, each virtual server can run its own separate operating system and applications from the other virtual servers on that single machine.

Virtualization can be broken down into three groups...

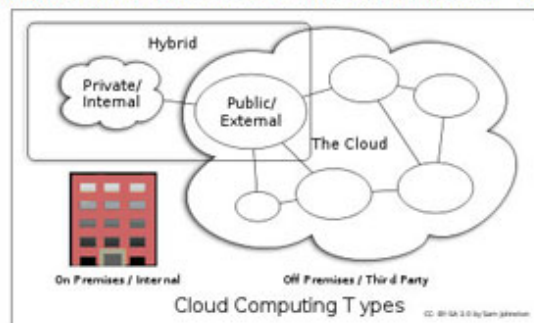
**HARDWARE VIRTUALIZATION-** In hardware virtualization, the host machine is the actual machine on which the virtualization takes place, and the guest machine is the virtual machine. The words host and guest are used to distinguish the software that runs on the actual machine from the software that runs on the virtual machine. The software or firmware that creates a virtual machine on the host hardware is called a Hypervisor or Virtual Machine Monitor.

**DESKTOP VIRTUALIZATION** – Virtual desktop infrastructure (VDI), can be thought as a more advanced form of hardware virtualization. Use of Thin Clients which are seen in desktop virtualization, are simple and/or cheap computers that are primarily designed to connect to the network. They may lack significant hard disk storage space, RAM or even processing power, but many organizations are beginning to look at the cost benefits of eliminating “thick client” desktops that are packed with software (and require software licensing fees) and making more strategic investments.

**SOFTWARE VIRTUALIZATION-** Operating System, Applications and Workspace virtualization are all common examples.

**MEMORY, STORAGE, DATA & NETWORK VIRTUALIZATION** – these items can also be virtualized.

Most companies we work with state their goals for virtualization as follows; 1.) To reduce their company's I.T. costs while increasing the efficiency, utilization, and flexibility of its current assets, and 2.) To centralize administrative tasks while improving scalability. But how? What are the pros and cons of virtualizing internally vs. via a private cloud or a hosted cloud? Do proprietary applications pose issues with either method? What about security and privacy concerns?



Virtual Private Clouds are yet another alternative that is offering huge advantages to particular sized customers. At MasterTel USA, our goal is to help you virtualize better by addressing all your critical business concerns and by designing the optimal virtualization strategy.

