10 New Reasons to Virtualize Your Infrastructure

The cost savings that come with virtualization makes it an easy selling point, but there are other reasons the technology makes sense my favourites being it lowers the number of physical servers, and it is a green. Here are 10 good reasons to consider virtualization aimed at the system administrators.

1. Common Management Interface

- Having all your servers available in a single application is cool, but the ability to control those servers from that single interface is downright arctic. Virtualization offers access to virtual machine (VM) hardware, consoles and storage. Your entire gaggle of systems as readily available as a pocket protector full of trade show pens is almost too good to be true.

- ILO Not Required
- For the unlucky lot whose hands-on techs don't setup your Integrated Lights Out (ILO) interfaces, virtualization removes that burden for the better. Virtualization allows you to boot a VM from a powered-off state without the need for physical access to the system.

- Easy "Hardware" Changes
- Changing hardware and upgrading systems is no trip to the beach. In fact, it's absolutely maddening inside even the most plush data centers where you must kneel, stretch and bend in unnatural ways to break open a case, remove old hardware and install the new pieces. And, after all that fun, your hardware might not work and you have to repeat the process -- possibly multiple times. You can upgrade memory, increase the number of CPUs and add new hard disks to a VM with a few mouse clicks. You won't need any tools, yoga lessons or trips to the chiropractor after upgrading the hardware in a VM.

- Snapshots
- Before you read another line, go and take a snapshot of your favorite physical server. Can't do that, you say? You're correct, you can't. VMs have the unique fortune to have snapshot capability built in. A snapshot is an exact copy of your working VM prior to doing something to it that has the potential to make it not work. Fortunately, should that happen, you can revert to the snapshot and remove the faulty VM.

- Prototyping
- VMs are the perfect computer-flavored "guinea pigs" that happily promote the concept of a "do over." Using a standard VM, you can prototype an application, database or operating system enhancement without spending hours reimaging a physical system after each unsuccessful attempt.

- Fast System Communications
- Host-to-guest and guest-to-guest communications occur without any hops or standard physical hardware restrictions. Private VLANs create system-to-system communications that are secure and fast. Using a private VLAN for a group of VMs means that you can create a multi-tier application with limited outside network exposure and without a lengthy set of ALLOW and DENY network rules.

- Easy Decommissioning
- To decommission a physical system, you must touch the system multiple times: Turn off network ports, wipe the disks, unplug the system, remove the system from the rack and finally dispose of the system. A VM's decommisioning process involves the same general steps but there are no steps made to a data center. And, there are no systems to remove or to return. Removing a VM from inventory takes a few seconds.

- Templating
- How many gold disks does it take to support a data center? The answer is, one for every type of new hardware that passes through the magnetically-locked doors. How many Windows Server 2008 R2 VM templates do you require? One. You need one template that contains everything needed for deployment, incidentally, takes minutes to complete. A template allows to truly create a single master gold disk for your system deployments.

- Fast Deployment
- VMs require no shipping, no installation, no power hookups, no network drops and no SAN cabling. Using templates or staged ISO images, VM deployments take minutes or hours not weeks or months.

- Dynamic Capacity
- How far in advance would you have to plan to scale-up for a major marketing campaign that requires new physical computing capacity? Virtualization allows you to rapidly respond to changing business conditions. You can scale-up when you need extra capacity and scale back when you don't. Virtualization defines dynamic computing.

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