**About Virtual Machines**

In simple terms, a virtual machine (VM) is software-based or emulated version of a computing environment where operating systems or applications can be run. From here the VM can make requests to hardware devices like servers, processors, hard disks/flash disks, and memory through a virtualization layer – commonly a hypervisor or virtualization platform. In fact, several VMs and be created and simultaneously run within the virtualization layer.

VMs are versatile, as they can be easily copied, moved and modified all within the virtualization layer as long as they are compatible. Guest operating systems benefit from the same amount of processing and computing power across all VMs within the hypervisor. VM administrators can leverage this technology to perform complex backups, disaster recovery, as well as powerful application deployment. VMs are commonly used in most major types of virtualized environments including, sever virtualization, hardware virtualization and desktop virtualization.

**The HC3 Solution**

HC3 is a turnkey IT infrastructure solution that allows you to manage all aspects of virtualization – including virtual machine management – within a single, robust platform. Virtualization can be easily integrated with your existing system without having to purchase expensive server equipment and VM licensing. We’ve simplified this process by collapsing all system technologies (server, virtualization and storage) into a one-stop-shop for all of your infrastructural computing needs.

* **Scalability –** Imagine a computing environment where all node resources are collapsed into a single cluster. This makes for an environment that feels a lot like managing a single, super-server. In fact, the instant that you need more computing power to manage your VMs, you simply add more nodes to the system. This can be done easily and without much extra training. And for the most dynamic infrastructural environments, nodes can be simply mixed and matched to fit your ever-growing needs as an organization.
* **High Availability (HA) –** High Availability is a major concern of companies of all stripes. When adopting a new platform, you need to know you can ensure zero, or at the very least, minimum downtime instances. We built the HC3 platform with HA in mind. Using a combination of our signature ICOS and powerful cluster technology, we developed a node system that ensures maximum uptime. For instance, if applications can be seamlessly migrated between nodes in the system. Or, if a node fails completely applications are simply restarted on other nodes. Also, if you need to perform detailed maintenance, you can do so without ever powering down or going offline. Bottom line: our platform ensures that your operations keep running without missing a beat.
* **Cost-Effective/High-Powered Computing –** We also know this brand of computing doesn’t have a reputation of being the most affordable for real businesses – businesses that don’t have a massive IT budget at their fingertips. We built our platform with mid to large-sized organizations in mind. We’ve consolidated our platform in a way that keeps costs down. This means no server technology to buy and no inflated licensing costs.