

## VMware Virtualization

Between free virtualization software such as VMware Server and affordable, yet high performance Intel-based servers, virtualization simply allows businesses to do more with less.

Benefits of virtualization often include:

- Reduced hardware costs &ndash; Servers are often underutilized, and as such, have headroom to perform other tasks. As virtualization allows a single server to run multiple operating systems, it is now possible to run completely independent &ldquo;virtual&rdquo; server hosts on one physical server. To end users and even systems administrators, these virtualized servers appear to be no different than traditional physical systems.

- Lower power and space consumption &ndash; In addition to being more eco-friendly, having fewer servers simply equates to reduced energy bills. In rented spaces such as collocation facilities, fewer units of server rack space means lower monthly rates.

- Faster server provisioning &ndash; Traditionally, rolling out a new server meant ordering a physical system, waiting for delivery, and finally building the system upon its arrival. With virtualization, the provisioning of new servers takes minutes rather than weeks. As the physical server already exists, a new virtual system only needs a fraction of unused disk, memory, and CPU resources. As such, new machines can be created or removed on-the-fly from the management console and from any location.

- High Availability &ndash; If your business is mission-critical, or if you are attempting to maintain redundancy for disaster recovery, virtualization with VMware ESX Server and Virtual Infrastructure empowers your business to achieve near 100% uptimes through native HA functionality. In the event of hardware failure, VMware ESX &ldquo;HA&rdquo; will automatically power up virtual machines on stand-by physical servers located off-site.

- Load Balancing &ndash; Often used in tandem with the high availability feature, load balancing dynamically selects which physical servers to run your virtual hosts on in an effort to ensure well-balanced hardware utilization and maximum virtual machine performance.

- Streamlined backups &ndash; While traditional backup methods only backup application data, VMware virtual machines are encapsulated in a single file, allowing backups to not only capture application data, but also the operating system itself. Rather than having to build a new server from scratch before restoring your application data, a VMware restore entails restoring one and only one file-- yielding a fully functional server with all the original application data intact.

If your organization is considering virtualization, or seeking assistance with an existing VMware infrastructure, Atomic Fission can provide expert assistance with your VMware needs. With our extensive knowledge of VMware ESX / Virtual Infrastructure and VMware Server, we will assure your virtualization projects complete on-time and stress-free.