

## Virtualization

### Overview

Shift your focus from maintenance to efficiency and innovation. Help grow your business as you fully optimize financial resources throughout IT, shift human energy and conserve the Earth's energy.

Today's x86 computer hardware was designed to run a single operating system and a single application, leaving most machines vastly underutilized. Virtualization lets you run multiple virtual machines on a single physical machine, with each virtual machine sharing the resources of that one physical computer across multiple environments. Different virtual machines can run different operating systems and multiple applications on the same physical computer.

Small and mid sized businesses have servers running at only 10 or 15 percent of total processing capacity. In other words, 85 or 90 percent of the machine's power is unused. However, a lightly loaded machine still takes up room, requires the same level of maintenance and draws electricity, so the operating cost of today's underutilized machine can be nearly the same as if it were running flat-out.

It's not just virtualization that's important. You need the management tools to run those machines and the ability to run the wide selection of applications and infrastructure services your business depends on. Virtualization lets you increase service availability while eliminating error-prone manual tasks.

At IES Group we work with our clients to identify efficiencies and savings gains by implementing Virtualization in there environments.



### Key Benefits

- *Server consolidation. Virtual machines can be used to consolidate the workloads of several under-utilized servers to fewer machines, perhaps a single server.*
- *You can develop a standard virtual server build that can be easily duplicated which will speed up server deployment.*
- *Virtualization enables Business Continuity and Disaster Recovery.*
- *Reducing administration, labour, energy ("Green" IT) and hardware costs*
- *Efficient application and desktop software deployment and maintenance*
- *You can deploy multiple operating system technologies on a single hardware platform (i.e. Windows Server 2003, Linux, Windows 2000, etc)*
- *Dynamic and extensible infrastructure to rapidly address new business requirements*

### At a Glance

- *Lower number of physical servers - you can reduce hardware maintenance costs because of a lower number of physical servers.*
- *By having each application within its own "virtual server" you can prevent one application from impacting another application when upgrades or changes are made.*