

## **Efficiencies through Server Virtualisation... as well as preparing for when things fall off the shelf**

### **Uptime**

In order to stay efficient with IT, computer uptime is essential. The longer it takes to restore a failed piece of hardware (workstation, notebook, server), the less efficient you become. Often swapping a user's computer for another is very quick, however when a file server crashes, this is a far more complex situation, even with good backups. Virtual servers can be brought back up quickly on another compatible host. Virtual platforms include HyperV, VMware and Xen.

### **Availability and Backup**

Having critical information available creates efficiencies. Allowing immediate access to information, even if distant in place, allows efficient use of resource. This is where thin client computing takes on a life of its own (Eg Terminal Services). Terminal Servers are easy setup/replicated within a virtual environment.

Backing up a virtual server is very fast, as only changes to the image need to be copied once you have the initial image saved. This affords opportunities to utilise outside data-centres or local fibre loops.

### **Power and Space Efficiency**

Virtualisation saves money on power consumption by reducing the number of physical machines running. Less heat means less air-conditioning cost. With fewer physical machines means, space requirements are reduced, making more efficient use of buildings. Virtualisation may lead to zero server ownership with processing power/storage being rented from a data-centre.

### **Technical Support**

Remote access for support means that issues can be resolved quickly, allowing your institution to be function at full potential much more quickly. Virtualising servers allows easier remote monitoring and early intervention of issues. It allows testing of new software without disruption to the production servers. Bringing a new server online can be as easy of changing an IP address.

### **Future-proofing - scaling**

The virtualisation model allows for expansion with minimal, if any, downtime. It allows scalability, portability and flexibility. Moving servers from one piece of hardware to another can be seamless. As the server is essentially a large file, it can be moved onto another site with minimal reconfiguration. Increasing available space can be done dynamically without having to rebuild the server with the use of SANs.

**GROUP DISCUSSION NOTES FOLLOWING ADRIAN GRAY'S FORUM PRESENTATION:  
Efficiency through Server Virtualisation**

Cloud computing – security of confidential information concern.

Off-site hosting attractive to provide back-up.

Must be adequate connection.