

# Virtualisation Touches Everything



## Introduction

While the driving force behind the uptake of virtualisation initially focused on consolidation, containment as well as the potential cost savings and 'green' IT benefits it brings, as time progresses, other drivers are piquing the interest of CIOs. These include virtualisation's potential to create a more nimble and agile business, take the pain out of disaster recovery preparations and, importantly, fully harness the potential of cloud and utility computing. Whatever your organisation's business drivers or pace of adoption of virtualisation technologies, getting there swiftly and safely calls for a strategic deployment plan.

## Consolidating the masses

Virtualisation's initial rise to fame was largely linked to the benefits it brings in terms of server consolidation and containment. Virtualisation enables organisations to consolidate and control the explosion in growth of their open system servers, primarily Windows servers.

Those travelling down the server virtualisation path soon discovered the inherent cost savings that can be achieved from using virtualisation, as well as its environmental benefits.

There are four costs associated with a physical device or server, namely: the cost of the box; maintenance on the box; the cost per square metre to house the box; and the cost of power to run and cool the box. So for each physical box removed, these costs 'evaporate' in total or at least to some degree.

Take for example a Dimension Data client who recently embarked on a large-scale server consolidation project. The company started with 1000 servers and, after consolidation, had successfully whittled this number down to just 80 virtualised servers. The hardware cost saving from that project amounted to close on \$6,000 for each server removed from the data centre!

Better still, after removing the servers from the data centre the company's environmental costs had decreased

dramatically. So, today, thanks to the consolidation exercise, for every application the company starts running on a virtual machine, it is saving close to \$1,700 in power and cooling and \$400 plus in real estate on a three-year basis. That means that overall, the company is saving more than \$8,000 over three years for every application that it starts running in a virtual machine. The reality is that the bigger the environment, the greater the savings.

## Cheaper disasters

Further benefits being enjoyed by those that have tested the waters of virtualisation are that it dramatically simplifies disaster recovery. In the open systems world, traditional disaster recovery typically involves a string of servers: a single production server and an exact mirror in the disaster recovery centre ... which also implies duplicate costs.

Then there's the resources issue. Setting up a cluster is a complex and costly exercise that could take hours of a skilled administrator's time. And, when setting up this fragile environment, organisations have no guarantee that it will perform as expected.

Organisations that have embraced virtualisation are no longer bound to expensive clustering software. By using site recovery tools from virtualisation software providers, it becomes easy to set up software so that the systems can detect an application failure and redirect to another location.

One-to-one correspondence between the production and disaster recovery hardware is also no longer a necessity, which means that less expensive equipment can be used in the disaster recovery facility (and less of it) to cover more applications.

## Enabling the new age in computing

Today, the concept of moving enterprise applications into the cloud is very much in vogue. Virtualisation helps organisations better harness the power of cloud computing. That's because with virtualisation, the application stack is freed from physical limitations and IT may become much more responsive to changing business demands. Organisations are then in a position to move applications between internal and external clouds and can



reap the benefits of an agile computing platform that moves applications easily between data centres electronically.

At the same time, virtualisation also allows organisations to draw on a third party hosting provider's cloud and only utilise resources as and when needed, for example, for peak workload capacity or disaster recovery management or to support the growth of the business.

### Reality hits hard

David Cottingham, Director for Data Centre Solutions at Dimension Data, warns that regardless of an organisation's business drivers for virtualisation, it's imperative that it plans strategically for the deployment, as a move to virtualisation

'touches everything' in the infrastructure – security, networking, backup and recovery, operational procedures, and so on.

Virtualisation is here to stay. Cottingham says that from his experience, only half of these organisations are fully realising the benefits of virtualisation as they lack an understanding of how virtualisation is changing their business. For example, virtualisation has an effect on backups and, rather than preventing disaster recovery issues, organisations often create roadblocks that inhibit data protection.

So while there's no doubt that virtualisation results in tangible benefits, experience has shown that its deployment and

management can be tricky. It's not surprising, therefore, that organisations often call on the assistance of virtualisation experts in order to ensure that they maximise the benefits that these technologies can unlock. "Choose a systems integrator that has experience in creating virtualisation roadmaps and solving virtualisation-related problems, as this is one journey that you cannot afford to travel alone," concludes Cottingham.



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