



Exceed Together

Making the case for virtualisation in mid-sized organisations

Virtualisation is often presented as a ‘no-brainer’: a technology that delivers benefits to all organisations irrespective of size or market sector. But before companies embrace ‘must-have’ solutions, they need to build a solid business case first.

Introduction

Virtualisation has brought undoubted benefits, some of them even matching their vendors’ claims. These solutions have entered the mainstream and are no longer the preserve of larger enterprises.

“Over the past year virtualisation has moved to a mainstream technology that is being embraced by most enterprises,” says research group, IDC. “IDC believes the evolution is due to the potential cost savings and increased IT flexibility that server virtualisation can provide.” (1)

Inevitably a multiplicity of vendors are riding on the coat tails of virtualisation, touting solutions aimed at winning the hearts and wallets of new customers.

This paper will argue that while virtualisation has brought well-publicised business benefits, it should not be portrayed as a silver-bullet solution. We will argue that a one-size-fits-all

approach isn’t appropriate for many companies, which are often at very different stages in their respective journeys towards virtualisation.

Before investing in a virtualisation implementation, we will show that drawing up a well-crafted business case and realisable ROI strategy can help convey the benefits of virtualisation and enlist board-level support, both for the initial implementation and its ongoing development.

Benefits

By working with the right supplier of managed services, mid-sized businesses can realise the continuing benefits offered by virtualisation solutions, including improved management and asset utilisation.

If businesses can prove an organisational fit for virtualisation technology,

the chances are the company will enjoy many of the benefits touted by vendors, including the two most important drivers: cost reduction and more efficient use of systems capacity. What’s more, both benefits can be achieved without businesses having to give up control of their data.

Challenges faced by mid-sized organisations

A wave of business drivers including data regulation, globalisation and increased customer expectations are applying ever greater pressure on the costs and efficiencies required to run mid-sized organisations.

As never before, companies are being asked to achieve more with fewer staff and less money, as well as finding ways to prepare for and sustain growth. Mid-sized companies are looking to get more from their IT budgets, ►



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maintaining the current systems that keep the business running while delivering changes that can have a direct impact on improving the business.

Businesses are also under immense short-term pressure to replace Capex spending with Opex, with the onus on decreasing the latter. At the same time they fear jeopardising their overall strategy of securing a stable IT infrastructure both now and in the future.

In a market awash with a myriad of vendors, who should businesses believe or trust?

Taking the wrong turn

There are a number of common pitfalls that organisations may fall into when building a case for virtualisation. Many assume that it is purely a technical issue – leaving the challenge to be solved by an IT specialist. Such an approach inevitably focuses on the technology and potentially doesn't take into account business-related issues.

Organisations often approach virtualisation as a 'one-off fix', rather than an ongoing evolutionary process with the long-term potential to leverage the technology for future growth.

Research company Info-Tech has pointed out two important pitfalls

to avoid when preparing for a virtualisation implementation. When the research company canvassed companies on the subject, they reported improved efficiencies in their maintenance staff, but found this was "rarely sufficient to remove resources altogether since, in most cases, the system administrators perform other roles in the IT department." (2)

Info-Tech also urges businesses to manage their own expectations when it comes to claims regarding the often huge consolidation benefits touted by vendors. "Consolidation ratios mentioned by the vendors differ from actual client experiences," concluded the authors in the report. Working



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with a virtualisation service partner is one way to ensure servers are not overloaded and help ensure more servers are not created on-spec – so-called virtualisation server sprawl.

Ascertaining an organisational fit: size matters

So having avoided the common pitfalls, how should companies go about building an effective case for virtualisation?

According to Info-Tech "virtualisation is really an infrastructure initiative that can bring some level of benefit to any size of company."

However although the adoption of virtualisation is greater in larger companies, the proportion of their environment that is virtualised is far less significant. The greatest benefit can potentially be seen in small and mid-sized organisations. ►



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Cost savings through virtualisation

An optimally managed or "advanced virtualisation" infrastructure, described as an infrastructure that includes penetration of virtualised servers of more than 25 percent, storage virtualisation, and the use of systems management tools, can deliver a total reduction of up to 52 percent per user per year.

Business value of virtualised deployment: total costs		
	Total costs per user per year (\$)	Savings versus unvirtualised (%)
Unvirtualised	165	NA
Basic virtualisation	107	up to 35
Advanced virtualisation	80	up to 52

Source: IDC's Business Value of Virtualization Research, 2008

Building a plan:

- Identify virtualisation pitfalls including vendor hype and the temptation to reduce headcount
- Highlight cost savings, rather than cost avoidance benefits, to secure buy-in from senior business managers
- Assess organisational fit for virtualisation implementation based on total number of employees and the number of in-house servers
- Choose a service provider, and work with them to calculate time and resource requirements for implementation
- Carry out a technical risk audit based on the six key questions
- Approach virtualisation implementation as an on-going improvement process, rather than a one-off, fix-all, silver bullet

The greatest benefit can be seen in small and mid-sized organisations

Mid-sized organisations are “in the sweet spot to achieve cost savings from virtualisation,” according to Info-Tech. Size, in terms of employees, and the number of services have a crucial role to play when it comes to establishing an organisational fit for virtualisation implementations.

Very large enterprises face greater difficulties when rolling out virtualisation implementations as they run up against internal bureaucratic obstructions. Small organisations, meanwhile, have difficulty justifying the initial outlay. The most notable potential gains to be had from virtualisation are for companies with employees of between 100 and 5000.

When it comes to actual physical server numbers, the organisational fit is best achieved in enterprises

housing more than 15 servers with 30 and above realising the most number of benefits. “Thirty servers or more leads to the greatest and most demonstrable cost savings and benefits when taking implementation costs into consideration,” says Info-Tech. “If there is organisational fit, virtualisation does provide most vendor-stated benefits.”

According to Info-Tech the biggest cost reductions come in terms of hardware savings, most notably in the form of one-off and ongoing acquisition cost savings of up to 75 percent. Meanwhile reduction in hardware-related maintenance costs can realise recurring monthly cost savings of between 25 and 50 percent.

The logical culmination of such an argument would understandably conclude that a focus on hard-core cost savings, primarily in the form of hardware thanks to a reduction in the number of physical boxes, should comprise the bulk of the case.

These should be stressed in preference to non-tangible benefits such as oft-cited cost avoidance benefits in the form of disaster recovery and business continuity, to ensure buy-in from senior business managers.

Consolidation ratios mentioned by the vendors differ from actual client experiences

Industry experts also stress additional benefits when carrying out a due diligence ahead of a virtualisation implementation. In IDC’s Business Value of Virtualization Research (2008), the authors of the report highlighted the following additional benefits:

- Potential increase in user density. The average user density can increase by a factor of three on a per-server basis, while the number of users per server manager can increase by a factor of between four and five times.
- Improvements in system availability. System availability can increase even for basic virtualisation. The real benefit comes from an advanced virtualisation scenario in which downtime drops by 50 percent.
- Scalability is just a click away. Once virtualised, an application that needs more scalability can be moved to a server that can fulfil that requirement with little more than a few clicks of the mouse.

Managing technical risk

The final part of building a business case for virtualisation is taking stock of the overall technical risk involved.

This helps ensure that planned expenditure on virtualisation encompasses reliability and continuity and can be kept proportional to actual business risk. ►



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Here are six questions mid-sized organisations should ask themselves when carrying out a technical risk audit:

1. Server management – are server management services available, or is the solution unmanaged?
2. Virtuality – is the solution built on a virtualised offering, such as VMware?
3. Operating system and database support – are all popular OSes supported, including Linux, Windows and Solaris?
4. Scalability – will the solution scale capacity in terms of CPU, bandwidth, storage and RAM?
5. Management interface – does the management interface reflect the reality of the provisioned solution?
6. Service level agreement – is there a strict and proactive SLA?

Conclusion

To sum up: cost savings achieved through reduction in hardware costs are the most effective benefits to stress to senior business managers when building the case for virtualisation. They should be given priority over more non-tangible benefits such as cost avoidance through the provision of business continuity and disaster recovery – though not to their total exclusion.

Cost reduction can be best conveyed in terms of organisational fit for businesses, with a virtualisation implementation based on the company's head count and the number of in-house servers. Other benefits to help build a case are an increase in user density, improved system availability, and improved availability.



Customers can move to server operating systems that offer unlimited virtualisation rights, dramatically extending their savings in many cases



Once buy-in from senior business managers has been achieved, a technical risk audit should be carried out.

With the right supplier of managed services, businesses can implement almost any application without changing business policies, application architecture, network design or operational support model.

Taking this approach offers many of the benefits of working in a 'corporate cloud environment', including improvements in speed, business agility, and the Opex versus Capex charging model. At the same time, businesses can avoid or minimise elements such as limited visibility of activity, and concerns surrounding control and security. ■



A technical risk audit should always comprise a major factor in any attempt to build a business case for virtualisation



For further information www.colt.net.

When looking at virtualised servers, it is important to consider whether your supplier can offer:

- Applications on demand (managed workspace)
- Network infrastructure (security, load balancing, switching, routing)
- Server and system infrastructure (dedicated, virtual, high-availability)
- Storage and backup/recovery infrastructure
- Monitoring and management including 24x7 helpdesk

(1) IDC WHITEPAPER: Worldwide Virtualization Services Spending 2007-2012 Forecast

(2) Info-Tech – The Business Case in Virtualization <http://www.infotech.com/Products%20and%20Services/Impact/Virtualization.aspx>