

*With*

# DRIVE ENTERPRISE INNOVATION IT Simplification

*Meet competitive challenges and market opportunities with an IT architecture that's as fast-moving and dynamic as today's global business environment.*

**T**oday's globally competitive business climate demands that organisations reduce complexity to ensure the reliable delivery of products and services to customers, and to better adapt to fast-changing business needs. CIOs must simplify their IT infrastructures to enable the business to function optimally in this environment, as technology budgets cannot be infinitely expanded to support new requirements. The solution is to develop a strategy to scale and streamline IT systems, to support business growth while reining in costs.

Businesses must optimise their infrastructures, turning their unwieldy data centres into flexible, dynamic and highly cost-effective platforms for business innovation.

For many businesses, the road to a dynamic infrastructure will lead to the consolidation and simplification of their IT infrastructures through

virtualisation and the automation of operational management processes. The final destination: an IT organisation that can quickly deliver innovations to help the business enhance competitiveness, improve customer satisfaction and reduce risk.

Organisations are discovering that an optimised IT infrastructure can bring together two important pieces of the business-technology alignment puzzle. On the one hand, it reaches IT's goals of controlling costs, integrating systems and flexibly allocating resources. And on the other, it meets the business executives' focus on driving innovation to ensure customer satisfaction, meet market expectations and service level objectives, and remain competitive.

Virtualisation and automation form the foundation of an optimised IT infrastructure. By virtualising the IT server and storage infrastructure and automating the processes

## ROI Revealed

*Virtualisation and automation offer returns on investment that will free resources for innovation and customer responsiveness, ultimately creating a more efficient and competitive business.*

Benefit	Result
Capital reductions of up to 75 percent on equipment, and savings on operational expenses of up to 35 percent	Reduced cost structure is aligned with business value
Server utilisation can zoom from 10 percent or less to 90 percent	Drives business efficiency and scalability to meet requirements
Energy savings may be achieved by consolidating	Energy-efficient and environmentally responsible green data centre for eco-friendly brand image

“Virtualisation has given developers greater flexibility and control, freeing their time to explore new business ideas with less risk.”

for managing that consolidated environment, organisations can simplify IT. They wind up with fewer physical servers and storage devices, and need less manpower to maintain the infrastructure. The cost savings of IT optimisation can be dramatic: it's estimated that companies can realise capital expenditure reductions of up to 75 percent on equipment, and experience savings in operational expenses of up to 35 percent, as well as stomp down the growing trend among companies to spend more money manually managing systems than they did to buy them.

But beyond cost savings, business innovation is better supported. When infrastructures are simplified for the greatest levels of efficiency and flexibility:

- It's easier to integrate data and deliver value-creating business processes because the underutilisation of servers and storage – which drives up costs and supports the propagation of application silos – is eliminated.

- Organisations can bring capacity on the fly to the applications that need it to better serve internal and external customers.

- IT can become more nimble at delivering new revenue-generating applications to the business – both from the standpoint of freeing up IT resources that would otherwise be burdened with maintenance tasks, and by eliminating the time and IT hassles that accompany the provisioning of physical infrastructures.

- Energy efficiencies can be realised at a time when some companies can't get enough power into their data centres. When power constraints limit the ability of organisations to support systems for new business processes and applications, their ability to innovate is jeopardised.

Plenty of work remains to be done in most businesses to achieve operational excellence and then translate that into business value. “IT shops are doing an even better job at optimising IT operations,” says Forrester Vice

## Game, Set, Match: The US Open Scores With Virtualisation and Automation

The United States Tennis Association (USTA), the sport's governing body and organiser of the US Open tournament, knows a thing or two about winning – and not just on the courts.

By utilising technologies such as virtualisation and automation, the US Open has been able to leverage its IT budget to deliver innovative projects that increase its revenue.

As its Official Information Technology Partner, IBM has used virtualisation and systems management technologies to deliver efficiencies for the US Open. For example, traffic to USOpen.org has increased significantly from year to year. In 2007, the site has so far had more than 7.3 million unique visitors, an increase of 10 percent over 2006. In addition, during the US Open tournament, site traffic spikes up to 50 times the regular rate. To efficiently handle this growth, USOpen.org is now served from three separate IBM Service Delivery centres during the two-week tennis tournament when traffic is heaviest. IBM p5 POWER5 processor-based servers using IBM Virtualization Engine and IBM Micro-Partitioning capabilities pool and manage resources on demand, including the ability to handle the substantial uptick in online visitors.

The USTA didn't have to make a large capital investment in a permanent infrastructure that would be underutilised most of the year to guarantee the site's scalability and availability to visitors during this peak period. The organisation benefited from improved IT utilisation and system availability with virtualisation; increased flexibility and responsiveness with a dynamic infrastructure; and lower cost and complexity through consolidation and standardisation.

"The flexible infrastructure delivered by IBM enables us to provide a highly reliable and available system that provides a personalised and robust user experience to millions of fans around the world and delivers significant value to our sponsors," says Jeffrey Volk, Director, Advanced Media, the United States Tennis Association.

Since 2004, thanks to the optimised infrastructure that supports the USOpen.org:

- Users have increased by 83 percent, while the cost per user has been reduced by 58 percent during the same period.
- Website visits have increased by 33 percent, while the cost per visit has been reduced by more than 40 percent during the same period.
- Annual hosting costs have been reduced by more than 23 percent.

These efficiencies have enabled USOpen.org to provide a wealth of new website features, including the ability to publish up-to-the-minute information and interactive content to stimulate fan participation – and perhaps nudge their interest to shop on the site. Furthermore, the site now has the capability to highlight sponsors' brands and messages in context. That increases the value of sponsorship opportunities and revenues to the US Open.

That's an advantage point that any organisation would be happy to claim.

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President and Principal Bobby Cameron. But today, for many companies, a technology such as virtualisation still exists solely for cost containment; fewer businesses realise that virtualisation is also “a key part of being able to quickly handle the rapid change from shifting business models, globalisation [and] new partnerships,” he says.

#### **Simplify: Virtualisation**

More savvy companies adopting emerging technologies like virtualisation grasp that they gain both ROI and a dynamic platform that provides the flexibility they need to take their business to the next level. “A lot of people make a case for virtualisation around a cost-savings number or a server reduction number,” says Brendan H. O’Malley, CIO of baked goods company Tasty Baking Co., based in Philadelphia, PA., USA, which is undertaking both storage and server consolidation efforts.

Thanks to virtualisation, Tasty Baking Co. has been able to cut the number of physical

servers it uses by half. “But the bigger story,” says O’Malley, “is really around the flexibility that you build when you virtualise. You can move applications around very quickly, you can bring up test systems very quickly, and provision new servers very quickly.”

In short, that means that O’Malley and his team can focus on business priorities and deliver to those needs rather than worry about disk space and network connections. Parts of Tasty Baking Co.’s mission-critical SAP infrastructure, which it uses for forecasting and inventory management, are already live on its virtualised infrastructure. Tasty Baking Co. is constantly setting new targets in its quest to provide customers with great service. “I think having the systems that we have today allows us to do that better,” O’Malley says. “We can be, if not in step, a step ahead, and stay there by not being stuck with a relatively inflexible infrastructure.”

At the global professional recruitment consultancy and IT outsourcing provider

“With both virtualisation and automation in place, CIOs can realise the dual benefits of capital expenditure relief and relief for IT operations staff.”

Harvey Nash, the virtualised environment is primarily development and testing oriented. The group has consolidated down to three servers from approximately 17 systems. CIO Alastair Behenna says the firm has yet to quantify ROI, but notes that the business has saved on buying at least five new servers, plus weeks of operations personnel’s time. “As we embed virtualisation into the day-to-day operational mix, then we will be able to draw on the experience gained here and deliver substantial ROI across our IT landscape,” he says.

But perhaps more important, virtualisation has given developers greater flexibility and control, freeing their time to explore new business ideas with less risk. “I think the only thing that restricts us these days is creativity and the ability to envision what we’d like to do,” says Behenna.

The virtual testing environment gives them that ability, and pays off in business innovations, especially on the Web. The

virtualised environment has been “an incubator for some great ideas, which flowed into substantial wins for us,” Behenna says. That includes a project where developers created a building in the Second Life virtual reality environment, where the firm can post jobs and carry out interviews with the kind of bright tech talent that gravitates there – just the kind of people many of its clients want to hire. So those Internet efforts have a direct impact on Harvey Nash’s ability to get new leads and make more placements.

That’s a model for IT leaders to follow. When IT can translate the cost of its efforts into how it builds competitive business advantage and generates revenue, “then we are at the value conversation,” says Forrester’s Cameron.

### **Simplify: Automate**

Many organisations see great value in automation. Manual IT processes introduce errors and require staff to spend hours on

routine maintenance when they should be focused on delivering new applications to drive the business forward. To get the greatest value from virtualised environments, especially as those infrastructures scale up, it's important to automate provisioning, service delivery monitoring and responses to alerts.

For example, a leading consumer packaged goods company has implemented virtualisation with the effect of reducing costs by 60 to 70 percent and achieving a scalable, variable-capacity IT infrastructure that enables responsiveness. It has also set its sights on provisioning, with IBM Tivoli software playing a key role; this will allow new services to be created automatically as business needs dictate. Orchestration, which is the automatic allocation of processor, network and storage capacities, will further reduce the need for manual system administration at the company.

What does it add up to? An opportunity to

focus resources on what matters. And in the competitive consumer packaged goods space, where competition is both local and global, that means enhancing product and brand value, and differentiation.

Like many CIOs, Tasty Baking Co.'s O'Malley admits that businesses don't always do as good a job automating IT processes as they do automating business processes. "We want to bring that same level of automation and use of software tools to IT that we provide to the business," says O'Malley, whose goal is to move to an almost completely virtual infrastructure.

With both virtualisation and automation in place, CIOs can realise the dual benefits of capital expenditure relief and relief for IT operations staff. "The value of virtualisation is that you can automate," says O'Malley, who plans to reduce costs over time to offer more and better service at a lower cost per server. "In essence, it will let us get more value out

of the infrastructure and the people,” he says. And that should translate into delivering more innovative projects for the business.

### Vendor Selection

Selecting vendors to help streamline an IT environment is an important step. It's imperative that these partners understand why the ability to be dynamic is so important in today's fast-moving environment. Vendors must help companies meet customer expectations, remain competitive, manage risk and comply with regulations – and prove that they can help CIOs make that case to

business executives.

Many vendors can touch on pieces of this puzzle. But very few have the expertise and leadership – from hardware to resource optimisation to services – that can put the entire picture together. ■

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