Virtualization and Cloud Computing
Move the SMB Market Forward

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Executive Summary

An uncertain economic climate is often more difficult for small and midmarket businesses (SMBs) than for enterprise companies. SMBs often walk a resource tightrope, making it difficult for them to maintain pace with the virtualization, desktop delivery, and cloud initiatives that could help them improve the way their business delivers IT. However, ESG research reveals definite signs of a light at the end of the tunnel. For the first time in four years, smaller organizations ranked business process improvement, ROI/speed of payback, and improved security/risk management as their top-three considerations for justifying IT investments, with reducing operational expenditures a close fourth.

As a result, SMBs are looking more and more to technologies such as virtualization and cloud initiatives to make the most of limited budgets and staffing to move their organizations forward. Server virtualization is helping them to stop wasting resources—from processing power to storage to staff time—as well as to become more agile, address rising demands for application uptime and service levels, accommodate multiple end points, and still maintain control and consistency.

ESG recently spoke with IT leaders at three SMB organizations: a biotechnology firm focused on neurological therapies, a financial services firm that provides products for community banks and private financial institutions, and a German IT services company. The business and market pressures they described are common among SMBs: trying to improve efficiency, protect data, provide high levels of application uptime and data access, and enable quick and easy scalability, all with limited resources. These types of questions haunt their IT managers: “If we have an outage, will I be able to recover data?” “How can I provide the access my users want and still perform my maintenance tasks?” “What happens if we have a sudden increase in our customer base—will my infrastructure be able to handle the good fortune?”

SMBs Leveraging Technologies, Starting with Virtualization

Many SMBs are adopting new technologies to accelerate achieving their business goals. Server virtualization is one of the most effective technologies they can leverage; it enables them to make better use of their resources—both infrastructure and staff—to move their organizations forward. Most organizations get this. But have they tapped into its full potential?

The initial impact of virtualization can have a stunning effect—consolidating multiple application workloads on fewer physical hosts can immediately reduce costs and enable greater efficiency. Virtualization is very much a necessary first step—but by no means is it the end. In fact, it is just the beginning—of a new foundation, a new way of thinking, and new opportunities for SMBs.

IT Becomes Proactive with Management Automation

Automation of infrastructure tasks offers tremendous benefit to SMBs as they strain under limited staff resources. Instead of individually managing physical hosts, they can centrally manage multiple aggregated applications, improving the speed of management tasks as well as reducing the cost and gaining a holistic view of infrastructure status. But this is just the start. In addition to better monitoring, automation facilitates the analysis and reporting capabilities that take information about infrastructure usage and needs and feed it back to central IT. This enables IT to be more proactive about resource utilization and capacity planning; the staff can learn to identify patterns and trouble signs and intervene before any disruption occurs. For many SMB companies, virtualization and automation enable them to greatly improve—and in some cases initiate—their disaster recovery processes, by mitigating the startup and management costs.

Better Control of Endpoint Proliferation and Application Delivery

Options for delivering applications to end-users have changed dramatically in recent years. Virtualization enables new methods of application delivery—for example, desktop virtualization lets IT create desktop templates that are served up from a central server to thin- and zero-client machines. The advantages are huge. Not only does IT
maintain application and data control, but the organization also can reduce the costs of OS/application management and endpoint devices. In addition, mobile users can now access their applications from a laptop, desktop, and even smart phone or tablet, from any location. It improves security, reduces management and support costs, and speeds desktop provisioning.

**Virtualization Enables Cloud Computing**

Virtualization enables public and private cloud computing, and ESG research indicates a big increase in the midmarket. ESG’s 2012 IT Spending Intentions Survey revealed that a whopping 68% of SMB organizations expect to increase spending on cloud computing in 2012, particularly for software-as-a-service (SaaS) and infrastructure-as-a-service (IaaS). SMBs are leveraging virtualization to consume cloud-based resources and provide them; some SMBs are able to expand their product offerings and enter new markets because of these capabilities. Virtualization, by enabling cloud-based services, can actually level the playing field and limit the relevance of company size.

**The Bigger Truth**

Almost by definition, SMB organizations will have some common challenges—including small budgets, limited skill sets among IT staff, and limitations in their existing processes. But today, they have opportunities to break through perceived technology barriers to achieve greater business success. Technologies such as virtualization and cloud enable them to expand their capabilities without a corresponding linear expansion of expenditure or effort.

There are some pitfalls to watch out for, and suggestions to smooth out your virtualization journey:

- Don’t put all your eggs in one basket. If all your VMs are consolidated on a single physical host without high availability or disaster protection, a failure in that machine will have devastating consequences.
- Prepare your staff for changing IT roles. Virtualization can change how IT tasks are done, and it often requires roles to converge. Distinct boundaries between server, storage, network, and application tasks often disappear; employees have the opportunity to learn new skills and change their career paths.
- Don’t assume that business managers understand the value of the virtualization investment; clear demonstrations of potential savings and improved business agility usually gain their favor.
- Look beyond cost savings tied to workload consolidation, reduced management, and energy; proceed to the next level and use technologies such as advanced management tools and cloud computing to transform your business processes to improve customer satisfaction, mitigate risk, and protect your reputation.

Virtualization is certainly a necessary tool, but it is more than that—it changes how you think, and out of that, companies find ways to innovate. The change of mindset that virtualization engenders is what makes the technology truly transformative. Virtualization, by enabling cloud-based services, has leveled the playing field for many SMBs.