Dell whitepaper

The time is right to migrate to new servers

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Introduction

For many organizations, the time has come to migrate to a new server solution. Those companies still using Microsoft® Windows Server® 2003 and Windows Server 2008 are probably realizing that those solutions no longer provide the necessary capabilities and features they need to meet the demands of today's computing environment.

Still, the question on many decision makers' minds is likely to be: Will the benefits of moving to a newer technology outweigh the costs? In the case of Dell PowerEdge 13th generation servers and Microsoft Windows Server 2012, the answer is most likely, yes.

Why migrate now?

With many organizations still feeling the pinch of tight IT budgets, is this really the time to migrate to a new server? Companies have several options they can consider.

Delaying the migration and sticking it out with older servers might be the easiest solution, but taking this route could present genuine risks.

Older servers are much more likely to fail than newer systems. Even if they continue to function well, by staying with these older systems companies would miss out on the productivity, security, power efficiency and manageability benefits that can come from more modern solutions. These benefits can all contribute directly to the bottom line.

One option is to migrate to new servers in stages. Windows Server 2012 introduces hardware-based virtualization for the legacy Windows Server 2003 environment. This high-performance virtualization allows companies to run multiple self-contained servers on a single Dell 13th generation server, consolidating legacy servers and saving organizations hardware, management and power costs.

In the case of legacy applications that don't run natively on Windows Server 2012, companies might be able to use a physical-to-virtual conversion utility to take their older servers running Windows Server 2003 or Windows Server 2008 and deploy them as virtual machines on a Windows Server 2012 host.

While this approach doesn't deliver all the benefits Windows Server 2012 provides, companies can still take advantage of the increased performance and reliability of a Dell 13th generation PowerEdge servers.

In order to realize all of the benefits of new server technology, organizations need to make a complete migration to the new Windows platform. The results will be immediate boosts in performance, productivity, security and manageability. Furthermore, the newer solutions can deliver long-term operational savings.

There are several compelling reasons why companies should consider upgrading to new servers now, says Bob Leck, enterprise technologist at Dell. One is to improve business processes. New server technology provides the ability to consolidate internal and external storage, memory and I/O bandwidth into a single platform. This results in greater efficiency and optimal transaction performance, Leck says.

Another reason to upgrade is decision support. New servers deliver faster access to data, which can help speed up the business decision-making process. In addition, bringing virtual and physical server management together, which the new servers do, makes IT much more efficient, and provides more balance, better performance and helps reduce cost, Leck says.

Yet another reason is increased security. As a Web and application platform, Windows Server 2012 supports enhanced security features and simplified administration for more secure application deployment. Windows Server 2012 also includes improvements to authentication and security authorization, supporting more scenarios for remote offices or remote workers to give organizations more flexibility.

The Dell/Windows Solution

Windows Server 2012 can power the IT infrastructures of enterprise customers, managed services providers and cloud solutions. It delivers several new enhancements and features that make it superior to Windows Server 2003 or Windows Server 2008 platforms. With Windows Server 2012, organizations can benefit from enhanced virtualization, identity and access control management, a graphical interface, storage and networking, and Web and application hosting.

PowerEdge 13th generation servers provide a powerful platform for Windows Server 2012 and its advanced features, giving enterprises improved performance and increased reliability and management.

Microsoft Hyper-V previously had a limit of four virtual CPUs per virtual machine. But Hyper-V now lets organizations create large, high-performance virtual machines, with up to 64 virtual CPUs, one terabyte of memory in each virtual machine and 64 terabytes per virtual disk.

This extra capacity is important for enterprise-level applications such as enterprise resource planning (ERP), supply chain management (SCM), customer relationship management (CRM) and other critical platforms.

There are other key advantages to the new server technology. Enhancements in virtual desktop infrastructure (VDI) ensure richer experiences for users, regardless of their location. New versions of Server Manager and PowerShell 3.0 let enterprises manage multiple servers from anywhere, and handle everything from automating common storage tasks to provisioning servers, without physical or remote desktop access.

Organizations planning a move to the cloud can benefit in additional ways. With new Hyper-V network virtualization features, extensible switch technologies and System Center 2012, PowerEdge 13th generation servers can provide the foundation for a robust cloud infrastructure.

Finally, with the arrival of 13th generation servers and Microsoft Windows Server 2012, organizations can significantly simplify their Windows Server deployment.

Dell designed its 13th generation servers specifically to exploit the strengths of Windows Server 2012. The company's ongoing collaboration with Microsoft has resulted in the validated applications, reference architectures, services and support organizations need to launch a server upgrade with the least possible disruption to the business.

Clear Business Benefits

While older server solutions have served companies well, for many organizations the time to migrate to newer technology clearly has arrived. Companies that are using servers that are 4 years old or more running outmoded software to power their database infrastructure are not providing their employees, customers and business partners with the best possible performance. They are also likely to be wasting valuable resources.

By moving to a Dell PowerEdge 13th generation server with Windows Server 2012, enterprises can make their IT infrastructures more manageable, productive and secure. This can result in bottom-line improvements that will contribute to a solid return on investment.

The new servers support data center virtualization, and with cloud computing becoming increasingly popular in organizations, this is a key consideration. "These Dell servers were built for virtualization, and so was Windows Server 2012," Leck says. "We worked closely with Microsoft to make sure these products were in lockstep when they became available."

A major upgrade such as moving to new servers is something organizations should carefully plan and execute to help reduce the risk of error and minimize operational downtime. Companies need to consider hardware and software licensing costs, hardware, and application compatibility and scheduling to maintain high productivity and minimize system downtime during the migration process.

With the help of your SHI account executive and the Dell-dedicated pre-sales team, organizations can make a smooth migration to a new server environment without disrupting business operations. Given the potential benefits of a server upgrade, it makes sense for IT and business leaders to evaluate such a move now.

To learn more, contact your SHI representative today.