

## EXECUTIVE SUMMARY

Microsoft-powered virtualization offers tremendous potential to help IT executives drive innovation while consolidating infrastructure, simplifying management, and lowering costs. Backed by a close partnership with Microsoft and the full weight of Dell's engineering and best practices, Dell Global Infrastructure Consulting Services offers flexible, high-impact consulting services for comprehensive solution design, proof of concept and implementation. Working with Dell will ensure that your virtualization projects achieve fast time to value and return on investment (ROI).

# Simplifying IT through Virtualization

Dell and Microsoft Hyper-V  
ensure efficient, cost-effective  
virtualization projects.

By Tom Farre

COMPLIMENTS OF



## THE NEED FOR SIMPLIFICATION

For today's IT executives, the demand for innovation with the need to support more users, devices and data continues to grow. At the same time, maintaining legacy systems and managing sprawl, as well as overly complex infrastructure, ties up a high percentage of resources. All this occurs as IT budgets are under increased pressure to do more with less.

Simplifying IT is Dell's goal. "Our mission is to help customers identify and remove unnecessary complexity from their IT infrastructure, thus freeing resources to focus on the core value of IT to drive business innovation," says Larry Baldachin, leader of the Dell-Microsoft global practice for Dell Global Infrastructure Consulting Services. "We accomplish this through short-term, high-impact consulting projects that deliver tangible results."

Dell seeks better answers than traditional service models that favor armies of consultants, complex contracts and lengthy engagements. Dell Global Infrastructure Consulting Services utilizes the right balance of skilled solution architects and automated tools to deliver rapid results and reduce consulting costs. The outcome is faster time to value and ROI.

The methodology for Dell's consulting is drawn from its intellectual property, validated reference architecture and

best practices developed through proof-of-concept testing in Dell's solution centers. Dell also utilizes extensive field experience gained from supporting thousands of customers around the globe, as well as its own extensive IT environment. Dell then delivers a set of practical, action-oriented plans that provide specific, predictable and measurable outcomes.

Dell's unique approach gives you the flexibility to choose from a menu of modular service offerings, from targeted proof of concept to solution design, implementation and support. You can also select an end-to-end solution that begins with a workshop to determine your objectives and specific pain points, then moves onto the assessment of your environment and design. The solution ends with a full production rollout of a validated and tested solution with knowledge transfer to your IT team and formal training if needed. Dell's proven methodology and project management expertise can help maximize the value of your IT investments.

## THE DELL-MICROSOFT PARTNERSHIP

Organizations using Microsoft's software will benefit from Dell's consulting services, as Dell partners extensively with Microsoft to help streamline all aspects of IT operations.

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## NetBenefit utilizes Windows Server 2008 with Hyper-V

NetBenefit is a leading managed hosting provider in the United Kingdom. Faced with rising data center costs, the company wanted to expand its hosting solutions while maximizing data center space. To achieve these goals, NetBenefit implemented Windows Server 2008 with Hyper-V and System Center Virtual Machine Manager (SCVMM). This allows the company to offer competitively priced and secure entry-level virtual machines for customers, while reducing server management work and its hardware, electrical and data center costs.

Since NetBenefit uses Dell servers exclusively, the

company turned to Dell for help. Dell consultants delivered technical deployment assistance in the form of consulting, deployment, training and technical support. Whenever NetBenefit encountered a problem, Dell worked with Microsoft to help move the project forward.

"The flow of information from Microsoft through Dell was very good," says Dean Clark, hosting services manager at NetBenefit. "We were impressed by our Dell consultant's Windows knowledge. Dell's senior consultants really are some of the best we've worked with."<sup>1</sup>

1. See [www.microsoft.com/casestudies/casestudy.aspx?casestudyid=4000002586](http://www.microsoft.com/casestudies/casestudy.aspx?casestudyid=4000002586)

The partnership leads to cost-effective, end-to-end Microsoft solutions designed on standardized infrastructure that scales to deliver business value from the desktop to the data center.

Microsoft and Dell work together to design products that are easy to manage and that integrate seamlessly into existing environments. As a Microsoft Gold Certified partner, Dell offers a single point of contact for everything from software and hardware to infrastructure consulting and other support services. Dell provides seamless ordering, installation, integration and support for Microsoft applications on Dell infrastructure. Dell validates Microsoft solutions running on Dell platforms. Also, Dell participates extensively in Microsoft Technology Adoption (TAP) and early adopter programs by deploying alpha and beta products in customer production environments around the globe. Validation is additionally performed jointly through the Microsoft Product Development Group and Dell Enterprise Solutions Centers, where a dedicated Dell team focuses on solution testing, verification and certification of the Microsoft solution stack.

Further, Dell and Microsoft participate in several areas of joint development and product testing, including Microsoft Windows Unified Data Storage Server (the Dell PowerVault NX1950 offering), web services, Exchange, SQL Server and Windows Server 2008 software. Dell also works closely with Microsoft to test beta code and optimize hardware configurations.

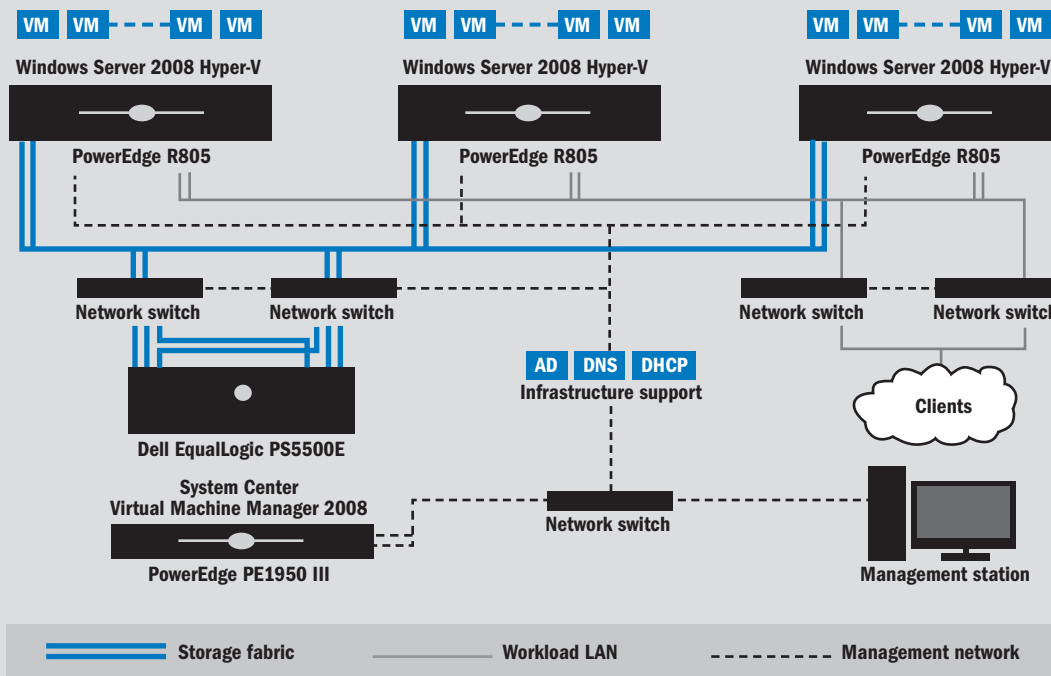
Dell Global Infrastructure Consulting Services extends this expertise with certified Microsoft professionals who offer advice, design, planning and integration for Microsoft solutions on Dell platforms. In fact, Dell has worked with Microsoft for more than three years providing input to and testing of Windows Server 2008. Dell has actively worked in the field with early adopters of Microsoft's virtualization technology, as part of the Windows Server 2008 Early Adopter Program, to build a pool of knowledge and best practices in all aspects of "field" production implementation.

## DELL INFRASTRUCTURE CONSULTING AND VIRTUALIZATION

Dell's consulting expertise in Windows Server 2008 and Microsoft-powered virtualization is especially valuable to organizations that want to simplify IT operations and maximize investments.

"Virtualization has become a preferred approach to consolidating data center sprawl, to improve resource utilization and reduce the costs and complexity of IT management," says Baldachin of Dell Global Infrastructure Consulting Services. "The consolidation of physical servers helps enterprises save on data center space as well as power and cooling costs. A virtualized infrastructure can increase reliability and minimize downtime by reducing

### Sample instance of a MEDIUM configuration



single points of failure and enabling failover during a system outage. Virtualization can also simplify IT by improving the efficiency of server provisioning and administration.”

To achieve such benefits, organizations need a fully engineered virtualization solution that is cost effective, easy to manage, and simple to integrate into the existing environment. Microsoft Windows Server 2008 with Hyper-V and System Center Virtual Machine Manager 2008 (SCVMM) can provide such a solution. Microsoft’s hypervisor-based virtualization technology makes sense for organizations looking to reduce third-party licensing costs, as Hyper-V is bundled with the Windows Server 2008 operating system. Microsoft-powered virtualization can also simplify and shorten the learning curve for administrative staff already familiar with the Microsoft environment.

Running on Dell PowerEdge servers with Dell OpenManage management software, Hyper-V with SCVMM offers an integrated platform for creating, provisioning, managing and securing both virtual and physical environments. Using familiar interfaces and a common management console, a virtualized environment based on Dell and Microsoft

technologies can deliver cost, service level and workload agility benefits while decreasing the complexity of disparate point solutions.

## THE DELL GLOBAL INFRASTRUCTURE CONSULTING SERVICES ADVANTAGE

If you are considering Microsoft-powered virtualization, your organization will receive key advantages from engaging with Dell consultants:

■ **Reference configurations:** Dell has partnered with Microsoft to create several validated reference configurations and a Virtualization Solution Advisor tool for Microsoft Hyper-V and SCVMM, each offering a single source for fully tested solutions.

■ **Field expertise:** Dell has invested thousands of hours in the development of field readiness and best practices around Windows Server 2008 implementation and Hyper-V server virtualization. This improves solution reliability, decreases risk, and can shorten consulting engagements.

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## HotSchedules cuts power costs by an estimated 77%

HotSchedules, a U.S.-based online labor scheduling service for restaurants, has experienced annual growth of more than 100% for several years. The company needed an agile and scalable IT environment that could respond quickly to future growth opportunities. By deploying Windows Server 2008 with Hyper-V, HotSchedules now hosts up to 19 virtual machines on each server and can reduce application servers from 120 to 12, cutting power costs by an estimated 77% and increasing its capacity for growth.

Dell consultants helped HotSchedules implement the

solution, accomplishing in just a few months what might otherwise have taken a year. HotSchedules utilized Dell’s Structured Design Solution, a contiguous assessment, design and validation service, accelerating the company’s virtualization effort and saving time and money.

“Dell consultants analyzed our environment, related it to hardware and software, and developed configurations and design specifications,” says Matt Woodings, chief technology officer at HotSchedules. “And they imparted all that knowledge to us, so we can manage and maintain the solution ourselves.”<sup>2</sup>

2. See [www.microsoft.com/casestudies/casestudy.aspx?casestudyid=400002481](http://www.microsoft.com/casestudies/casestudy.aspx?casestudyid=400002481)

■ **Faster results:** Dell solution architects can accelerate technology adoption by providing expert design and implementation assistance around all aspects of Microsoft server infrastructure.

■ **Flexible choice:** Dell offers a modular, phased approach to virtualization consulting, from discrete services that complement your expertise, to end-to-end project management, support and training.

■ **Validated, repeatable implementation processes:** Unlike consulting organizations whose work ends with a paper design, Dell consultants deliver validated, repeatable processes that speed production implementation.

■ **Knowledge transfer:** By sharing expertise and best practices, Dell's consultants can empower your staff for future success.

## CHOOSING INFRASTRUCTURE CONSULTING WITH DELL

Dell has many years of experience implementing virtualization solutions across multiple technologies. Once you've decided to engage with Dell for virtualization, you'll need to determine the level of assistance you require. Discrete services such as workshops and infrastructure assessments can be tailored to your exact needs and level of expertise. Or you can choose an end-to-end Structured Design Solution that includes a contiguous assessment, validated design, lab testing, implementation of a production pilot, and repeatable processes for a full production rollout.

**Hyper-V/SCVMM Workshop Sessions:** Half-day Workshops led by a senior consultant can help your organization understand the potential of Microsoft's server and virtualization technology. These sessions include a broad discussion of enterprise requirements, virtualization usage scenarios and your current infrastructure status. A Dell solution architect reviews design considerations, walks you through the "how" of implementation, and concludes with a broad project planning exercise and architecture to help you get started. Hands-on technology introductions are also offered, which are proof-of-concept oriented, longer in duration, and include installation of Hyper-V and SCVMM into your lab environment.

**Assessments:** An assessment explores the implications of

transitioning to Windows Server 2008 with Hyper-V and SCVMM. A detailed technical and operational overview is provided, as well as validation of your current infrastructure. Dell consultants use software tools from Quest® and PlateSpin® to analyze your infrastructure's readiness for virtualization and to explore potential consolidation ratios. The assessment concludes with a report that evaluates the infrastructure and recommends how best to proceed with the most impact and the quickest realization, including costs of hardware, software, outside services and internal staff effort.

**Design:** During design projects, Dell consultants map out the path to success by specifying validated hardware and software configurations for the Dell and Microsoft virtualization solution, as well as taking the extra step of providing a repeatable implementation process, which has been validated in your production environment. Design projects also help specify how to establish configuration management and monitoring to enable flexible administration of virtualized servers. Deliverables include a comprehensive design document as well as a validation specification that provides an outline of tasks needed to successfully deploy the solution into production while ensuring quality and performance.

**Implementation:** Once the design and validation have been completed, Dell can execute all tasks required to deploy full-scale Windows Server 2008 and Hyper-V implementations into your production environment. Typical activities include installation, configuration, migration, data transfer, acceptance testing and knowledge transfer, as well as hand over to in-house operations and Dell support. Deliverables include diagrams and build documents that describe how the systems were configured. Dell consultants also provide a knowledge-transfer checklist and best-practice tips tailored to your environment.

**Support and Training:** Dell ProSupport is available for post-implementation hardware and software support, including remote advisory services for virtualization customers who want in-depth support. Dell Education Services also offers training classes for technical and non-technical staff on how to get the most from a virtualized environment.

Whichever services you choose, you can be sure that Dell can offer the best expertise, tools and processes in the Microsoft-powered virtualization space to help you simplify IT quickly and cost effectively.

### FOR MORE INFORMATION

Want to learn more about virtualization powered by solutions from Dell and Microsoft? Visit [www.dell.com/hyper-v](http://www.dell.com/hyper-v).