



# POWER SOLUTIONS

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## 8 COVER STORY

### THE EFFICIENT ENTERPRISE: BOOSTING YOUR DATA CENTER IQ

By Jeanne Feldkamp, Debra McDonald,  
and Tom Kolnowski

Economic pressures are transforming virtually every area of business, and the data center is no exception. New-generation Dell™ servers, storage, and management infrastructure offer outstanding enterprise efficiency together with exceptional virtualization, scalability, and support—helping IT executives to cut costs without compromising strategic organizational goals.



#### 14 EFFICIENT ENTERPRISE

### DATA CENTER WORKHORSES: NEW DELL POWEREDGE RACK AND BLADE SERVERS

By Edward Yee, Indrani Paul, Robert Tung, Truc Nguyen, and Chad Fenner

New 11th-generation Dell PowerEdge™ rack and blade servers are designed from the ground up for high performance, energy efficiency, and simplified management—offering a host of advantages in enterprise IT environments to help optimize resources and reduce total cost of ownership.



## ENTERPRISE STORAGE PAGE 50

### BOOSTING SAN PERFORMANCE WITH DELL EQUALLOGIC PS6000 ARRAYS

By Dylan Locsin, Ujjwal Rajbhandari, and Wendy Chen

Solid-state drives (SSDs) offer a new tier of high-performance, highly reliable Dell EqualLogic™ PS Series storage. The Dell EqualLogic PS6000S array provides cost-effective SSD-based storage that can easily integrate into mult-tiered storage area network (SAN) environments—providing a simplified, scalable way to help meet the performance demands of targeted applications.

## CLIENT SECURITY PAGE 63

### UNDERSTANDING THE BASICS OF DEPLOYING AND MANAGING SECURE ENDPOINTS

By David Schweighofer

With the ranks of mobile and remote workers expanding every day, cost-effective endpoint security is a growing business concern that enterprise IT organizations avoid at their peril. Dell advances enterprise-wide protection with a balanced approach that focuses equally on safeguarding data and preventing unauthorized access.

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*By Daniel Bounds, John Jenne, and Robert Hormuth*

The Dell Energy Smart architecture in new 11th-generation Dell PowerEdge servers provides a comprehensive, system-wide approach to balancing performance with energy efficiency—supporting scalable, efficient infrastructures that can help optimize performance per watt and reduce total cost of ownership.

#### 28 Optimizing DDR3 Memory Settings in New 11th-Generation Dell PowerEdge Servers

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By understanding best-practices configurations for Double Data Rate 3 (DDR3) memory in 11th-generation Dell PowerEdge servers, administrators can optimize settings for targeted enterprise applications and virtualized environments.

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*By Shelli Allgood, Anand Narayanan, Hai Phung, and Pritesh Prabhu*

The new Dell Unified Server Configurator enabled by the Lifecycle Controller provides a simplified, flexible way to perform systems management tasks ranging from firmware updates to OS deployment to diagnostics.

#### 37 Computing Pods: Large-Scale Building Blocks for Intelligent, Automated Data Center Deployments

*By Timothy Sherbak and Chris Auger*

Using advanced virtualization and software tools together with latest-generation infrastructure, IT organizations can build large-scale computing pods designed to aggregate server, storage, and network nodes into a simple, cooperating set of computing resources.



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Taylor's University College in Malaysia unifies a decentralized messaging environment with Dell PowerEdge servers and a Dell/EMC storage array—simplifying e-mail for end users, improving efficiency by 30 percent, and reducing support calls by 20 percent.

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Virtualized Dell PowerEdge servers and Dell/EMC storage help German automotive textile leader Johann Borgers streamline IT management and reduce maintenance costs by 25 percent.

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By migrating to Dell PowerEdge blade servers, BlueCross BlueShield of Western New York shrinks its data center footprint by 75 percent and improves efficiency by over 50 percent.

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### MEETING ECONOMIC CHALLENGES THROUGH ACCELERATED VIRTUALIZATION

*By Steve Burrows and Ron Oglesby*

In difficult economic times, many enterprises are seeking ways to streamline IT budgets without affecting operations. Evaluated and refined across thousands of real-world deployments, Dell virtualization solutions and services offer a comprehensive approach designed to quickly reduce total cost of ownership and maximize return on investment.

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DELL POWER SOLUTIONS ONLINE EXCLUSIVES



## **Really Remote Computing**

From oil fields to glaciers to the middle of the ocean, ruggedized technology is breaking ground in some startling new frontiers.

## **Right Here, Right Now**

Location-based services have the potential to transform the way your company builds relationships with customers. But a personalized, actionable marketing strategy is only as effective as the business intelligence systems driving it.

## **The Top 5 Mistakes Companies Make When Trimming Their IT Budget**

Take some of the sting out of your shrinking IT budget by avoiding gaffes that could come back to haunt you later.

## **VMware ESXi Systems Management on Dell PowerEdge Servers**

By Balasubramanian Chandrasekaran, Sudhir Shetty, Viswanathan Balakrishnan, Alok Sinha, and Charu Chauhan, Ph.D.

By integrating VMware® ESXi with Dell PowerEdge servers and using tools such as Dell OpenManage™ Server Administrator to monitor, inventory, and configure these systems, IT organizations can create scalable, highly manageable virtualized environments.

## **Evaluating iSCSI SANs: Dell PowerVault MD3000i Outperforms HP StorageWorks 2000i**

In Principled Technologies tests designed to evaluate Internet SCSI (iSCSI) SAN performance for online transaction processing and Microsoft® Exchange Server 2007, the Dell PowerVault™ MD3000i array outperformed the HP StorageWorks 2000i array across all tested metrics.

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**BLADE SERVERS PAGE 94**

## INTEGRATING DELL POWEREDGE M1000e BLADE ENCLOSURES WITH DELL EQUALLOGIC SANs

By Tony Ansley

Different approaches to integrating Dell PowerEdge M1000e modular blade enclosures with Dell EqualLogic PS Series iSCSI SAN arrays offer specific trade-offs in cost, performance, and complexity. By understanding the available options and following best practices for deployment, administrators can implement a consolidated, highly scalable infrastructure that can meet their specific needs.

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