



POWER SOLUTIONS

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COVER STORY

8 REDUCING STORAGE COMPLEXITY

By Eric Endebrock; Dave Jaffe, Ph.D.; and Kathryn White

Digital data is outstripping storage capacity and complex systems are failing to adapt under the strain as storage demands grow faster than IT budgets. The good news is that easy-to-use IP-based networked storage with built-in data protection and management capabilities promises to bridge the budget gap—and effectively complement traditional Fibre Channel-based storage area networks.



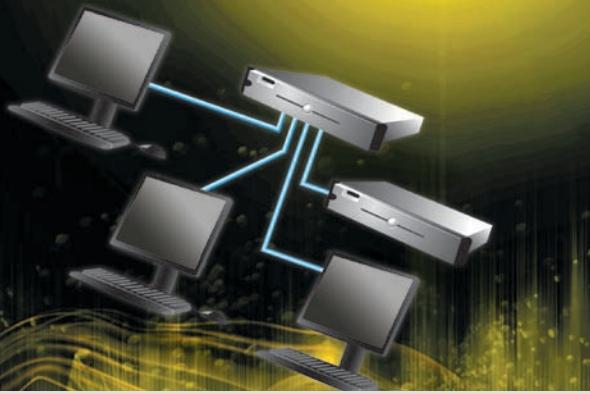
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STORAGE CONSOLIDATION WITH THE DELL POWERVAULT MD3000i iSCSI ARRAY

By Dave Jaffe, Ph.D., and Kendra Matthews

The Dell PowerVault MD3000i Internet SCSI (iSCSI) array enables enterprises to easily consolidate storage for multiple servers. Dell engineers performed tests demonstrating that the PowerVault MD3000i provides sufficient throughput in a consolidated environment.





SIMPLIFY YOUR IT • page 54

THE DELL PATH TO INNOVATION AND GROWTH

By Joe Pollock

Enterprises of all sizes struggle with the ever-increasing complexity of IT. By helping simplify and streamline the requirements for ongoing operations and systems maintenance, the Dell IT simplification approach enables organizations to reclaim the time, money, and personnel needed to turn innovation into a daily business practice instead of a long-term business goal. For more information, visit **DELL.COM/Simplify**.

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Flexible computing may conjure up a confusing array of terms: thin clients, virtual clients, and bladed desktops, for example. However, it is not one technology but a holistic strategy—controlling data while providing flexible data access. “Flexible Computing: What Is It and How Will It Simplify IT?” explains flexible computing initiatives from Dell. For more information, visit **DELL.COM/Podcast**.

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By Travis Vigil

iSCSI-based storage arrays such as the Dell PowerVault MD3000i offer a cost-effective way for small and medium businesses, remote offices, and departments and workgroups to consolidate storage while providing powerful, easy-to-use management tools.

28 The Advantages of IP-Based Networked Storage for Midsize Businesses

By Mike Apigian

Advances in IP-based networked storage technology such as network attached storage (NAS) and iSCSI can help organizations of all sizes take advantage of existing resources to easily and cost-effectively build, maintain, and manage sophisticated storage networks.

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By Art Gilliland

The Symantec intelligent archiving approach enables organizations to efficiently classify, filter, retain, and search for e-mail messages while helping simplify management and control resource costs.

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By Dave Jaffe, Ph.D., and Todd Muirhead

The Dell PowerVault NX1950 integrated NAS system offers cost-effective, versatile storage for small and medium businesses and remote offices.

38 Configuring Microsoft SQL Server 2005 on Dell Servers and Storage

By Wendy Chen, Sumner Stewart, Paul Rubin, Chethan Kumar, and Alvin Peng

Following best practices from Dell and Microsoft can help enterprises design a high-performance Microsoft SQL Server 2005 database on Dell PowerEdge servers and Dell PowerVault storage.

42 Exploring iSCSI and iSCSI Boot for SAN Implementations

By Robert Lusinsky and David Christensen

Broadcom and Dell have teamed up to offer enhanced iSCSI boot—which can provide increased system reliability, simplified management, and accelerated restore processes—on Broadcom Ethernet controllers in Dell PowerEdge servers.

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NEW HORIZONS IN ENTERPRISE STORAGE



Oracle Data Guard Deployment Using Dell/EMC CX3 Storage Replication

By Wendy Chen, Ujjwal Rajbhandari, and Kai Yu

Using Dell/EMC CX3 storage replication software when deploying Oracle Data Guard can help significantly reduce primary database downtime during the deployment process.



Parallel Rendering Technologies for HPC Clusters

By Li Ou, Ph.D.; Yung-Chin Fang; Onur Celebioglu; and Victor Mashayekhi, Ph.D.

Using parallel rendering technologies with clusters of high-performance computing (HPC) workstations configured with high-end graphics processors helps scale out graphics capabilities.



Utilizing Open MPI Middleware for HPC Clusters

By Toby Sebastian, Sanjay Lalwani, and Munira Hussain

Open MPI helps simplify the porting and execution of Message Passing Interface (MPI)-based applications and supports many HPC platforms, interconnects, and environments.



Migrating Remote Installation Services to Windows Deployment Services in Microsoft Windows Server 2003

By Sankari N., Manjunath Narayanan, and Gobinath K.

Microsoft Windows Deployment Services can be used for deploying the Windows Vista OS as well as the forthcoming Windows Server 2008 OS and a variety of legacy operating systems.



Using IPMItool Raw Commands for Remote Management of Dell PowerEdge Servers

By Seshadri N. and Raghavendra Babu

To help maximize the capabilities of the baseboard management controllers in Dell PowerEdge servers, administrators can access hardware functions using IPMItool raw commands.



Xen Virtualization in Red Hat Enterprise Linux 5

By Jose De la Rosa and Puneet Dhawan

The open source Xen virtualization hypervisor included in Red Hat Enterprise Linux 5 provides key components to help build dynamic, scalable virtualized environments.



Maintaining Dell Platforms with Dell Technical Updates

Firmware updates for Dell PowerEdge components and Dell PowerVault storage can help improve system functionality and minimize potential problems.



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 Dell and Cisco have collaborated to create storage area network (SAN) solutions designed specifically for small and medium businesses, allowing them to deploy high-performance, enterprise-class storage in a cost-effective, easy-to-manage way.

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PROTECTING VITAL BUSINESS INTERESTS WITH A SIMPLIFIED STORAGE SOLUTION

A flood tide of digital data and increasingly complex regulatory requirements have made data backup, recovery, and archiving critical aspects of enterprise operations. Dell Services experts can assess how effectively an information infrastructure is getting the job done and deploy integrated, best-of-breed storage solutions to help ensure the safety and recoverability of critical data.

TALK BACK

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