

## 8 cover story

# The smart money's on IT

## How the Efficient Data Center drives sustainable growth

By Bryan Jones and Bill Goins

Imagine a data center where pooled servers, networking, and storage can be rapidly redeployed to meet changing needs; where business application developers can self-provision their workload deployments; and where optimized storage and intelligent infrastructure are the norm. Dell is helping organizations to unlock data center efficiency and work toward the goal of returning as much as 50 percent of the IT budget to drive business innovation.

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### Solutions for the virtual era

#### 14 Designing for hyperscale computing

By Steven Croce, Brandon Draeger, and Buck Avey

Created for hyperscale environments such as private and public clouds, Web 2.0 and online gaming infrastructures, and high-performance computing, Dell™ PowerEdge™ C-Series servers provide outstanding performance in a dense, streamlined, eco-efficient design.

#### 20 Advancing server scalability and performance

By Armando Acosta and Robert Bradfield

Four-socket Dell PowerEdge R810 and PowerEdge R910 rack servers and PowerEdge M910 blade servers offer highly scalable processing power and memory capacity to help cost-effectively boost performance and expand virtualized environments, while other features help increase reliability and simplify administration.

#### 24 High performance in a compact design

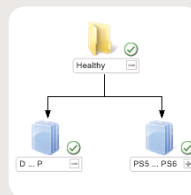
Maximizing performance while making efficient use of available power and space can be critical in data center environments. The Dell PowerEdge R815 rack server with the AMD Opteron™ 6000 Series platform delivers four-processor performance in a compact, cost-effective 2U design.



6 Fresh outlook, bold new design



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96 Near-instant access without a full system boot



104 Boosting business efficiency running Oracle BI on Dell



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## Tsumura & Company: Solving IT problems with server consolidation

By consolidating its infrastructure on virtualized Dell PowerEdge servers, Japanese herbal medicine leader Tsumura & Company has laid the groundwork for a dramatic reduction in ongoing server costs while ensuring that legacy applications can continue running years into the future.

## features

### Solutions for the virtual era

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#### How deduplication helps reduce the cost of backup and disaster recovery

*By Kay Benaroch and Shane Jackson*

Dell and EMC have teamed up to deliver efficient disk-based backup and recovery with integrated deduplication technology designed to make disk-based backups as cost-effective as tape-based backups.

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#### Optimizing management efficiency with Dell/EMC NS storage

*By Annette Cormier, Eric Cannell, and Brad Bunce*

The Dell/EMC NS family of unified storage enables organizations to easily and cost-effectively consolidate both unstructured file-system data and structured application data into a single shared storage system—helping organizations control costs, streamline management, and enhance storage availability and performance.

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#### Racking up data center efficiency

*By Joyce Ruff*

Designed to meet the needs of high-density data center environments, the Dell PowerEdge 4820 rack enclosure can hold and protect a wide range of IT equipment while supporting enhanced power management, efficient cooling, and simplified component storage and mounting.

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## State of Delaware: Taming the e-mail beast with blades

Centralizing its e-mail systems on Dell PowerEdge blade servers and Dell EqualLogic™ storage helps the state of Delaware reduce total cost of ownership, streamline management, and cut downtime from days to minutes.



## 50 Storage optimization

# Enhancing SAN self-management with Dell EqualLogic storage

By Tony Ansley and Mansour Karam

Dell EqualLogic arrays offer built-in intelligence to help simplify configuration—but operators may still miss important settings. Together, Arista and Dell have created a storage architecture that can automate configuration through switches running the Arista® Extensible Operating System (EOS®) platform.

### Business intelligence

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By Mark Conway, Dan Blankenship, and Jaime Delgado

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By Patrick Sweeney and Matthew Dieckman

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### Dell KACE appliances: Simplifying Windows 7 migrations

By Sendhil Jayachandran

For midsize organizations working with a diverse range of hardware and limited resources, making the move to the Microsoft® Windows® 7 OS can be a daunting challenge. The innovative Dell KACE™ family of appliances provides a simplified, automated, cost-effective way to design and carry out an end-to-end migration.



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## online exclusive

### Streamlining systems management with Dell Management Console 1.1

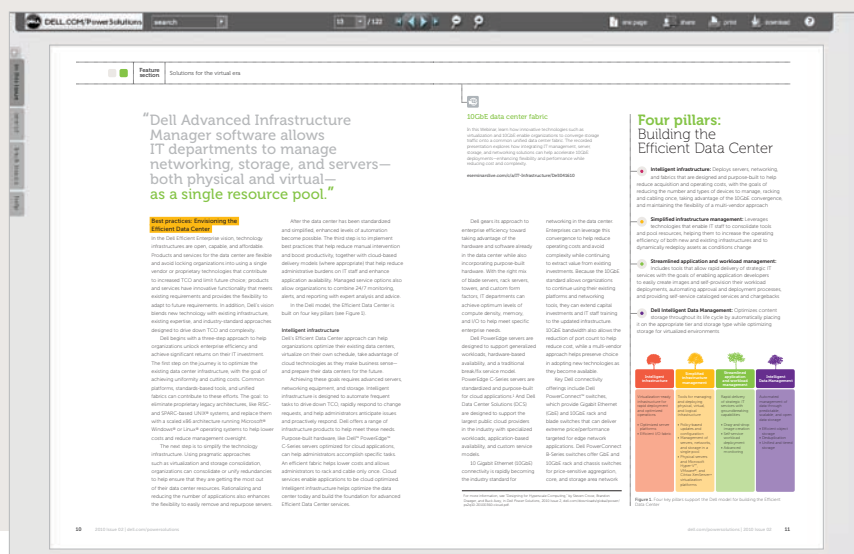
By Todd Rodgers and Tad Walsh


Dell Management Console powered by Altiris™ from Symantec™ consolidates multiple systems management tasks into a unified, easy-to-use console. Dell Management Console 1.1 enhances this functionality with features including power monitoring, out-of-band update capabilities for server BIOS and firmware, and automated warranty reporting.

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### The Efficient Enterprise



## Invest in innovation. Not in the status quo.


### The Efficient Enterprise

**Free up 50% of your IT budget for innovation**


The Efficient Enterprise focuses on driving business innovation while reducing the costs of "keeping the lights on." Dell is committed to helping companies like yours realize \$200 billion of the resources spent every year on IT infrastructure to embrace the business challenges that can help your business excel.

Think about your spend ratio. It's likely that "keeping the lights on" is about 80% of your IT budget. The 20% left is what's spent on the programs that are at the heart of the business strategy—those that will help drive change as you go forward. Through standardization, simplification and automation, the Efficient Enterprise can reduce these costs closer to 50%. We have done this at Dell and we can help you get there too.


The Efficient Enterprise challenges the status quo of proprietary technology, limited openness, limited choice, and solutions that enable complexity rather than reduce it. Delivered as open, capable and affordable solutions, the Efficient Enterprise includes:



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Cloud IT services market overview—real enterprise value or just vapor?

## Efficient Enterprise framework

Take control of your data center with open, capable, and affordable solutions that help you focus on driving business innovation rather than just "keeping the lights on." For the full story, visit [efficiententerprise.com](http://efficiententerprise.com).

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