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Advancing Your Enterprise Storage Strategy

By Vicki Van Ausdall

Dell's scalable enterprise strategy is more flexible than ever. Key storage components now include a budget-conscious iSCSI-based array along with a lineup of outstanding CX series Fibre Channel platforms that are designed to deliver high availability, performance, and capacity for demanding enterprise applications.



Dell/EMC AX100i storage array



Dell PowerEdge 6850 rack server

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ON THE FRONT COVER | Managing racks of Dell/EMC storage

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TALK BACK

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Network Link Aggregation Practices with the Dell PowerEdge 1855 Blade Server

By Bruce Holmes

The networking architecture integrated on the Dell PowerEdge 1855 blade server enables significant flexibility and resource consolidation. This article describes the relationship between the optional Dell PowerConnect 5316M Gigabit Ethernet switch when configured for link aggregation and the Dell PowerEdge 1855 blade server's integrated networking architecture in enterprise networking environments.



Open Source Utilities for Remote Monitoring of HPC Clusters

By Yung-Chin Fang, Randy DeRoeck, Rinku Gupta, and Monica Kashyap

Computing centers continue to scale out in a quest for additional processing power, making remote hardware management critical for cluster hardware uptime. This article provides examples of how open source utilities such as IPMItool and Ganglia can be utilized and integrated into large computing infrastructures to monitor and manage hardware health conditions.



Enhancing High-Performance Computing Clusters with Parallel File Systems

By Amina Saify, Garima Kochhar, Jenwei Hsieh, Ph.D.; and Onur Celebioglu

The performance of I/O subsystems within high-performance computing (HPC) clusters has not kept pace with processing and communications capabilities. This article discusses the advantages that parallel file systems can offer HPC clusters and how these specialized file systems can help enhance overall scalability of HPC clusters.



Designing High-Performance Computing Clusters

By Yung-Chin Fang; Saeed Iqbal, Ph.D.; and Amina Saify

HPC clusters have evolved from experimental computing architecture to mainstream supercomputing architecture. Today, HPC cluster architecture integrates multiple state-of-the-art, industry-standard components to provide aggregated, cost-effective supercomputing power. This article examines the influence of component selection on cluster performance and manageability.

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