

Brocade and Coraid Ethernet Storage Solution

HIGHLIGHTS

- Easily, rapidly, and cost-effectively scale storage environments to meet business requirements
- Simplify deployment and management of storage environments to ease administrative and resource requirements
- Deliver consistent and predictable performance for mission-critical, on-demand applications
- Enables a scale-out 10 GbE Ethernet storage architecture ideally suited for public and private cloud virtualization

Realizing The Benefits of Virtualization with Cost-Effective Ethernet Storage

From reduced costs and server consolidation to increased flexibility and automated management, virtualization has enabled organizations to increase efficiencies while reducing IT expenses. Unfortunately, all of the cost and agility benefits of enterprise virtualization can come to a screeching halt when data reaches the storage network. Increased complexity, as well as the escalating costs associated with scaling the network, can reduce the very benefits organizations are trying to achieve.

Ethernet storage not only helps customers maximize the ROI of existing investments, it also dramatically simplifies storage management. With the scalability to meet business and storage requirements, Ethernet can solve the challenges of rapid data growth by enabling a cost-effective storage solution that can support deployment and management as the storage network evolves.

The Brocade and Coraid Solution

Together, Brocade and Coraid provide a scalable Layer 2 storage fabric solution that can grow to support thousands of servers and petabytes of storage, all while maintaining the breakthrough cost and performance metrics necessary to implement dense virtualization. This solution enables organizations to address both today's application performance

requirements while also building a virtualized infrastructure that paves the way for a cloud storage environment of the future.

Brocade® VCS® Fabric technology, delivered on Brocade VDX® Switches, is designed to enable the highest levels of Ethernet fabric automation, resilience, and investment protection for storage environments. VCS Fabric technology solves the latent limitations of data center networks based on classic Ethernet, resulting in a fabric that is self-forming and self-aggregating by design. When two or more Brocade VCS fabric mode-enabled switches are connected, the fabric is automatically created, and the switches discover the common fabric configuration, enabling real-time scaling while also being automatically aware of all available

resources within each respective domain. The fabric is aware of all members, devices, and Virtual Machines (VMs), and if a VM moves from one VCS fabric port to another VCS fabric port in the same fabric, the port profile is automatically moved to the new port. VCS fabrics are self-aware and self-healing such that if any traffic pattern is disrupted in the fabric, the fabric will automatically redirect the traffic, mitigating any disruption to application uptime.

The Coraid EtherDrive® family of SAN products is built upon ATA-over-Ethernet (AoE), an open, lightweight storage area network protocol that runs on Layer 2 Ethernet. Designed for simple, high performance access of SAS, SATA, and SSD storage drives over Ethernet; AoE provides the capability to build storage networks with lower-cost, standard technologies. AoE is a thin protocol layer directly on top of Ethernet. Packets are addressed to devices using their MAC address. Since AoE is a Layer 2 protocol, it does not require TCP or IP layers, eliminating unnecessary processing. With fencing and reservation capabilities, AoE is the perfect technology for building affordable, fast, and simple SAN solutions for a virtualized environment.

Brocade and Coraid can help build out large, scalable, and efficient Layer 2 storage environments. By eliminating protocol layers and utilizing Ethernet

congestion avoidance algorithms supported by Coraid's HBAs, Coraid EtherDrive storage enables near-bare-metal performance using the ultra-low-latency Brocade VDX Switches (as low as 600 ns port to port).

Brocade and Coraid simplify administration by eliminating complex storage topologies and forklift upgrades. Brocade VCS fabrics allow a plug-and-play architecture, which enables the easy addition of new switches—and effectively, new storage arrays—into the fabric. Coraid's CorOS™ enables arrays to be deployed in minutes with as few as three configuration commands. By utilizing ubiquitous Ethernet, Coraid solutions vastly simplify the deployment and scaling of storage systems, making it possible to manage terabytes to petabytes without a dedicated SAN administrator. Customers can build scale-out configurations by simply adding more storage appliances.

The joint Brocade and Coraid solution provides unmatched price-performance advantages for customers by creating energy and storage efficiencies and reducing operational costs. Brocade VCS Fabric technology, combined with Coraid EtherDrive storage arrays, enable a scale-out 10 GbE Ethernet storage architecture that is ideally suited for public and private cloud virtualization. The result is a high-performance, scalable, and simplified storage environment that enables

enterprises to capitalize on the benefits of virtualized environments.

Learn More

Brocade partners with companies of all sizes to deliver innovative solutions that help organizations maximize the value of their most critical information. To learn more, visit www.brocade.com/technology-alliances.

About Brocade

Brocade networking solutions help organizations transition smoothly to a world where applications and information reside anywhere. Innovative Ethernet and storage networking solutions for data center, campus, and service provider networks help reduce complexity and cost while enabling virtualization and cloud computing to increase business agility. Learn more at www.brocade.com.

About Coraid

Coraid is a leading developer of Ethernet storage solutions that provide enterprises of all sizes with flexible, high-performance, scale-out storage. Coraid uniquely delivers the fundamental building blocks necessary to build the next generation SAN infrastructure for a range of applications including server virtualization, high-performance computing, video, and cloud storage. Learn more at www.coraid.com.

Corporate Headquarters

San Jose, CA USA
T: +1-408-333-8000
info@brocade.com

European Headquarters

Geneva, Switzerland
T: +41-22-799-56-40
emea-info@brocade.com

Asia Pacific Headquarters

Singapore
T: +65-6538-4700
apac-info@brocade.com



© 2016 Brocade Communications Systems, Inc. All Rights Reserved. 03/16 GA-PB-1837-01

Brocade, Brocade Assurance, the B-wing symbol, ClearLink, DCX, Fabric OS, HyperEdge, ICX, MLX, MyBrocade, OpenScript, VCS, VDX, Vplane, and Vyatta are registered trademarks, and Fabric Vision is a trademark of Brocade Communications Systems, Inc., in the United States and/or in other countries. Other brands, products, or service names mentioned may be trademarks of others.

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Brocade. Brocade reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Brocade sales office for information on feature and product availability. Export of technical data contained in this document may require an export license from the United States government.

BROCADE 