



## Open for Business: All Day, Every Day

### EXECUTIVE SUMMARY

#### Challenge

Ensure business continuity while migrating business-critical, live applications to a newer, recently acquired data center

#### Solution

- Brocade 7800 Extension Switch
- EMC VPLEX Metro
- VMware ESX clusters

#### Results

- Reduced migration time line by six to 12 months
- Maintained 100 percent uptime during data center migration
- Securely transferred 200 TB of data over 250 IBM AIX and 100 Microsoft Windows servers
- Ensured integrity of data, low latency, and encryption
- Enabled out-of-region disaster recovery center

In a global business, there's no room for network downtime that impacts customers, partners, or employees. The public—and stockholders—expect business to perform as usual, even during unusual circumstances. This includes the typical merger or acquisition, which can cause a deep ripple effect across companies.

For a large manufacturer located in the southeastern United States, a recent acquisition opened the opportunity to move business operations to a newer, more efficient data center. The advantages of the move were clear, but the logistics of moving 200 terabytes (TB) of data stored in more than 200 servers—while keeping the applications live and available—were overwhelming the company's IT team.

#### THE POWER OF PARTNERS

Migrating business applications across data centers was not a simple transfer from point A to point B. The team needed to coordinate multiple migrations across four sites while maintaining a disaster recovery copy at

all times. Throughout the migration, the company's critical business applications, stored on Microsoft Windows and IBM AIX servers and running SAP applications, needed to stay online and available to the company's more than 140,000 employees. Planned network downtime was not an option, since the company conducted business across every time zone and in every nation in the world.

The team's mission—to migrate live applications across data centers—needed an integrated solution from virtualization, storage, and networking leaders. VMware, EMC, and Brocade collaborated to develop a data center migration strategy that met the team's initial goals and laid a foundation for additional business continuity and disaster avoidance strategies.

The manufacturer designed and deployed mirrored sites with the Brocade® 7800 Extension Switch, EMC VPLEX Metro, VMware ESX clusters, and VMFS data stores appearing as a cluster across sites.

All the solution providers bring advantages to the company's data center environment. EMC VPLEX Metro, a distributed virtual storage appliance, virtualizes all storage arrays behind the cluster and supports SRDF migration. It also allows continuous availability and workload mobility with read/write applications on multiple sites. The Brocade 7800 optimizes the storage extension with Fibre Channel over IP (FCIP), FastWrite, and line-rate compression. These data center switches provide faster response times, more throughput, the ability to traverse longer distances, lower latency, and encryption. As the industry's leading virtualization platform, VMware ESX virtualized the large server farm.

### ULTRA PROTECTION

Initially, the IT team defined a time line of 18 months to complete the data center migration. Brocade and EMC helped define a strategy and a solution that allowed the manufacturer to shorten its initial projections by six to 12 months. During the data center migration, the sites maintained 100 percent uptime, with active-active status, ensuring that business continued with no interruptions. No records or transactions were lost, and latency between sites dropped to 4 milliseconds.

The new single cluster configuration has significantly improved the company's disaster recovery and maintenance strategies and processes. Class 0 and 1 data is stored out of the region with remote replication to protect against disasters. Across both sites, the company has active-active storage, read/write capabilities, as well as encryption and compression to ensure no downtime during planned maintenance—and unplanned disruptions. The IT team can also transfer Virtual Machines (VMs) if needed. The Brocade 7800 proved to be so efficient at moving large volumes of data that the team deployed it within other sites to ease data transfers.

### AVOIDING DISASTER

These initial enhancements and upgrades are the foundation of a rock-solid business continuity and disaster avoidance strategy. Only two years ago, this type of industry-leading technology was not available.

By deploying the integrated Brocade and EMC solution, the manufacturer has a much better alternative than a traditional disaster recovery solution. In a typical scenario, an active-passive architecture designates a second site and its resources to stand idle and unused. When responding to the disaster, the IT team must expend time and resources to bring systems down, move data across systems, reconcile them, and restart the systems.

Unfortunately, the odds are not good for companies that experience disasters. According to accounting and tax consultants McGladrey and Pullen, 43 percent of companies experiencing disasters never re-open, and 29 percent close within two years. Companies such as the manufacturer, as well as financial services, retailers, and others, are realizing how important business continuity and disaster avoidance are to maintaining their success in a world where business happens all day, every day—no matter what.

For more information, visit [www.brocade.com](http://www.brocade.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

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