EXECUTIVE SUMMARY

Technology Challenge
Resolve data center space, power, and reliability issues without compromising performance or scalability

Solution
Brocade® data center fabrics featuring Brocade 48000 Directors linked via Fibre Channel over IP (FCIP) by Brocade 7500 Extension Switches and managed by Brocade Fabric Manager

Benefits
- Faster delivery of sensitive legal data to enterprise law firms and corporate legal departments
- High port density and scalability for investment protection and ongoing growth
- Greater efficiency and reduced power consumption
- Compact form factor for maximum utilization of data center space
- Unsurpassed connectivity for real-time data replication and backup

A decade ago, the key objective for networked storage was reliability. Companies simply needed to ensure that vital files and records were safely stored. Today, however, the data volumes enterprises must preserve are skyrocketing—raising a wide range of new issues. As they maintain more and more servers and storage devices, firms such as Applied Discovery are confronting resource limitations within their data centers.

A leading provider of electronic legal discovery services to top U.S. corporations and law firms, and a business unit of LexisNexis, Applied Discovery utilizes a business model focused on data storage. The Bellevue, Washington-based company’s 300 employees digitize documents from parties involved in legal proceedings and make them available for review in searchable databases during the discovery phase of litigation. The company maintains strict Service Level Agreements (SLAs) to ensure that clients, including many Fortune 500 corporations and AmLaw 100 law firms, have uninterrupted access to their files.

Applied Discovery built a Storage Area Network (SAN) at its local data center to securely house terabytes of sensitive client data and records. As the business grew and its storage needs increased, the company identified a possible solution with a large data center in another region.

Applied Discovery deployed Fibre Channel over IP (FCIP) blades on switches to relocate data remotely. Ultimately, the company determined that the OC3 link between the local and remote locations did not meet its high standards for speed. Applied Discovery decided instead to consolidate its storage at a hosted local site.

Applied Discovery’s storage demands, however, continued to escalate along with its business. Storage at its hosted facility ballooned to 250 terabytes and although the site had 3000 square feet, the company ran up against space and power limitations.

The facility could provide only 150 watts of power per square foot, or approximately 3000 watts per rack. Because of the large size and power consumption of its legacy...
SUCCESS STORY

SAN directors, Applied Discovery was unable to conserve space by mounting two devices in a single rack.

The systems also presented port density issues. Their expansion blades shared a common backplane, which meant that hundreds of storage devices could compromise the systems’ performance. Moreover, reliability issues often required administrators’ attention and potentially threatened to impact the SLAs.

“The constant expansion of SAN fabrics puts a lot of pressure on data centers today,” explains Gary Oberg, Vice President, Information Technologies, Applied Discovery. “Heat and power are serious concerns and space is very expensive. We demanded state-of-the-art solutions that are compact and power-efficient, yet provide the performance and scalability to ensure we meet our clients’ needs as we grow our business.”

EFFICIENT DATA NETWORKING

To resolve its data center dilemma, Applied Discovery found that Brocade 48000 Directors offered the right mix of design, features, and performance. Able to deliver 4 and 8 Gbit/sec speeds at up to 384 ports, the enterprise-class platforms provide the superior port density and performance that Applied Discovery required. Because of their compact form factor and much lower energy consumption, the company can place two devices in a single rack, maximizing space and power.

“The Brocade 48000 Directors offer the industry’s best performance and scalability while consuming only a fraction of the power of our legacy systems,” says Oberg. “Valuing this kind of efficiency, we decided to standardize on the systems throughout our enterprise.”

In August 2007, Applied Discovery installed two Brocade 48000 Directors at its hosted data center, and it plans to install additional platforms at its other local and remote sites to replace legacy devices. To consolidate its data at the hosted facility, Applied Discovery relied on Brocade Professional Services to concurrently deploy two Brocade 7500 Extension Switches at that site and one each at the other locations to provide high-speed FCIP connectivity. The Brocade 7500 is a Fibre Channel extension switch that provides feature-rich routing services and powerful hardware-assisted FCIP capabilities.

To manage the SAN fabrics, Applied Discovery relies on Brocade Fabric Manager, enabling administrators to provision, monitor, and proactively control all SAN devices. “Using Brocade’s management tool, we can optimize fabric utilization and capacity planning,” adds Oberg.

MEETING STRATEGIC NEEDS WITH BROCADE SOLUTIONS

With the deployment of Brocade solutions, Applied Discovery is cost-effectively meeting its business needs, despite any resource limitations at its hosted data center. The firm now maintains more than 1000 client databases in over 50 SQL clusters, consisting of over a petabyte of information. Moreover, the fabric has been trouble-free and providing faster, more efficient access to legal content for Applied Discovery clients.

“We’re not running to the site to address issues like we once did,” concludes Oberg. “Thanks to the efficiencies of our Brocade directors and routers, we’re enforcing our SLAs and can further scale our performance and capacity. Our Brocade solutions have proven to be strategic investments that help ensure we continue to deliver our industry’s highest levels of service.”

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