



"FalconStor technology has simplified our infrastructure dramatically and offers greater manageability while ensuring the availability of our critical business applications."

– Mansoor Rahaman, EMEA CTO, CB Richard Ellis

CB Richard Ellis

Real estate services firm leverages FalconStor solutions to ensure data availability and optimize support for clients and end users

Background

CB Richard Ellis (CBRE) is the global leader in real estate services offering strategic advice and execution for property sales and leasing; corporate services; property, facilities, and project management; mortgage banking; appraisal and valuation; development services; investment management; and research and consulting. Each year it completes thousands of successful assignments for clients from a full gamut of vertical industries. Such volume creates market knowledge that allows the company to seize opportunities, speed business processes, and create the most thorough, precise picture of global commercial real estate conditions and trends. Every day, in markets around the globe, CBRE applies insight, experience, intelligence, and resources to help its clients make informed real estate decisions.

Challenge

A 'real-time' business environment such as CBRE places great demands on the company's IT infrastructure and administrators. They need to ensure that the infrastructure works when things are going smoothly, and even more importantly, that it provides continuous service when issues arise, in order to avoid interruption of day-to-day business activities.

In EMEA, much of CBRE's growth has stemmed from acquisitions. CBRE acquired six companies in the first half of 2008 alone, resulting in a highly distributed infrastructure and consequent management headaches. This complexity is intensified by the sheer volume of data: 60TB of it, growing at 20% every year.

Together, these factors make storage consolidation and data protection one of the IT team's highest priorities. "We are totally reliant on data held in Microsoft SQL and Oracle databases to deliver the services we provide to our clients," said Mansoor Rahaman, CBRE's Chief Technology Officer (CTO) for EMEA. "It's simply not replaceable, and without it, the business grinds to a halt very quickly."

FalconStor Solution

The first solution that CBRE deployed was FalconStor® Network Storage Server (NSS), which manages the company's data storage environment. FalconStor NSS provides high-performance SAN primary storage combined with enterprise-class storage virtualization, provisioning, and management.



Industry

Real Estate

Company Profile

CB Richard Ellis Group, Inc. (NYSE:CBG) is a Fortune 500 and S&P 500 company headquartered in Los Angeles. As one of the world's largest commercial real estate services firms, it serves real estate owners, investors and occupiers throughout more than 300 offices worldwide.

CB Richard Ellis is the only commercial real estate services company to be named one of the 50 "best in class" companies by BusinessWeek, and was also named one of the 100 fastest growing companies by Fortune magazine.

IT Environment

- > 60TB data - DAS, SAN
- > Oracle, Microsoft Exchange, Microsoft SQL, file-level data
- > VMware, Windows, Linux
- > Highly distributed multiple branch offices

Challenges

- > Data growing by 20% per year due to organic growth and acquisitions
- > Integrating disparate systems of acquired companies; provisioning for future growth
- > Protection of highly distributed data

FalconStor Solution

- > FalconStor® Network Storage Server (NSS)
- > FalconStor Continuous Data Protector (CDP)
- > FalconStor Virtual Tape Library (VTL) with integrated data deduplication

Benefits

- > Simplified storage infrastructure, enabled greater manageability
- > Data fully protected with high availability (HA)
- > Prepared for future data growth

Over the course of three years, CBRE has also deployed FalconStor Continuous Data Protector (CDP) for ongoing data availability and any-point-in-time recovery, and FalconStor Virtual Tape Library (VTL), which provides high-performance, disk-based data protection to meet the company's backup demands, simplify tape management, and enhance tape security. All products were implemented in conjunction with UK partner ANS.

Deployment Details

CBRE's FalconStor NSS appliances are configured to manage Dot Hill SANnet 2 storage arrays using Qlogic switches. All storage is managed centrally from the FalconStor NSS console. Thin provisioning and capacity-on-demand capabilities help automate storage resource allocation and capacity management while virtualization provides centralized management for the company's heterogeneous storage environment. FalconStor NSS includes the FalconStor TimeMark® snapshot capability to provide transactionally consistent, instant recovery to known points in time – designed to help CBRE administrators meet recovery point objectives (RPO) and recovery time objectives (RTO). CBRE's FalconStor NSS appliances are used to provision storage to all of the company's physical servers running applications such as Oracle, Microsoft Exchange, and Microsoft SQL. TimeMark functionality provides business continuity for all of these systems.

Rahaman and his team leverage FalconStor MicroScan™ technology and replication for rapid, simplified disaster recovery (DR) and optimized DR contingency plans. As part of the FalconStor CDP solution, FalconStor MicroScan deduplication technology minimizes replication bandwidth and storage requirements, which dramatically reduces cost structures for data protection. Meanwhile, FalconStor HyperTrac™ Backup Accelerator presents snapshots of applications and standard file systems to a Microsoft Windows backup server, enabling CBRE to keep applications active by backing up from snapshots rather than the primary copies of the data. FalconStor HyperTrac works in conjunction with FalconStor CDP and FalconStor NSS technology to increase tape backup speed, eliminate backup windows, and offload processing from application servers.

All data is backed up to a FalconStor VTL with integrated deduplication to minimize data volumes. Through FalconStor Single Instance Repository (SIR) technology, the FalconStor VTL solution delivers global deduplication without impacting the backup window. By only replicating unique data blocks to remote sites, deduplication technology helps reduce CBRE's network traffic by more than 95%.

FalconStor DiskSafe™, part of the FalconStor CDP solution, replicates data from CBRE's EMEA branch offices back to the central site in order to back up the data to the FalconStor VTL. The FalconStor DiskSafe agent delivers real-time and periodic mirroring for both DAS and SAN storage to complement the journaling, snapshot, and replication capabilities of FalconStor CDP. Together, these technologies provide a comprehensive solution to ensure end-to-end data protection for the entire storage environment, including CBRE's Microsoft Windows, Exchange, and SQL Server systems.

Business Benefits

According to Rahaman, FalconStor technology was initially deployed to help provide a secure infrastructure for the company's EMEA Microsoft Exchange database and to provision storage to its Microsoft SQL and Oracle databases, file, and print servers. Over the past three years, CBRE's faith in FalconStor data protection solutions has grown to such an extent that FalconStor software functionality is used throughout CBRE's storage infrastructure. "Now we have four high-availability FalconStor NSS clusters provisioning up to 300TB of Dot Hill storage at four locations. In addition, FalconStor VTL technology enables the replication of all our data to Spain for DR," he explains.

He surmises: "If I had to try to sum up what's now a very extensive and effective data protection deployment: FalconStor technology has simplified our infrastructure dramatically and offers greater manageability while ensuring the availability of our critical business applications." He adds, "It also means that we're ideally set for further business growth in EMEA, whether that's from further acquisitions or from organic growth."

Future Plans

In its latest drive towards virtualization, CBRE is planning a VMware technology deployment that will virtualize a number of application servers and desktops using Virtual Desktop Infrastructure (VDI). The VMware ESX server farm will be housed on a HP blade chassis containing 16 blade servers. Physical storage for this project will be provided by a HAF3 storage array, and FalconStor NSS technology will reside in the storage controllers.

This project will leverage advanced FalconStor snapshot capabilities via the FalconStor Application Snapshot Director (ASD) to provide transactional consistency to the application server running under VMware. CBRE is also exploring the idea of leveraging the seamless integration between FalconStor NSS and VMware Site Recovery Manager (SRM) to help automate the DR process.

For more information, visit www.falconstor.com or contact your local FalconStor representative.

Corporate Headquarters
USA
+1 631 777 5188
sales@falconstor.com

European Headquarters
France
+33 1 39 23 95 50
infoeurope@falconstor.com

Asia-Pacific Headquarters
Taiwan
+866 4 2259 1868
infoasia@falconstor.com

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