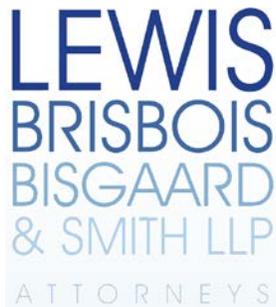


LBBS Wins the Case for Balanced Backup and File Sharing



With more than 785 attorneys and 21 offices nationwide, Lewis, Brisbois, Bisgaard & Smith LLP (LBBS Law) is one of the largest law firms in the United States. It is a full-service law firm with over 30 practice areas, dedicated to working closely with clients across a broad spectrum of industries to deliver exceptional service. LBBS Law is frequently recognized for its commitment to diversity, and actively fosters a culture committed to promoting the interest of clients, community and the legal profession.



Challenges

- Heavily virtualized server and desktop platforms creating performance issues throughout infrastructure
- Large pool of unstructured file data driving capacity requirements past incumbent capabilities
- Backup and recovery processes not meeting needs of LBBS' growing legal practice

Solutions

- Tegile Intelligent Hybrid Arrays

Results

- Backup windows dramatically reduced
- Unstructured file storage capacity reined in

The Challenge: More Data, Less Time

As a dynamic and diversified legal firm, LBBS Law is faced with an everincreasing volume of sensitive data that needs to be stored, managed, and protected. Given the sensitive nature of legal data and extended retention periods that are driven both by regulation and the extended nature of legal proceedings, continued data growth is certain. The IT department constantly evaluates its underlying infrastructure to ensure that it is poised to meet these growth challenges, and adapts quickly to useful technology innovations, such as virtualization.

The firm stores both structured database data and unstructured data, including a growing number of file shares. LBBS Law uses VMWare for both server virtualization and its Virtualized Desktop Infrastructure (VDI). Although the company has had a comprehensive tape backup system in place for many years, the system was proving increasingly difficult to extend and manage in a cost-effective manner.

Growing data volumes meant that more data needed to be backed up in the available backup window. Backing up more data, in turn, led to greater challenges in rotating data offsite for business continuity, as well as increasing difficulties in recovering data quickly from tape. In order to ensure that backup and recovery processes would meet the needs of its growing practice, LBBS elected to implement disk based backup. However, the firm wanted to minimize disruption and continue to use CA ArcServ as its backup management application.

When LBBS Law went looking for a storage system to backup data to disk, IT Director, Arthur Leeser, realized that the system chosen would need to deliver high performance, as well as high capacity, at an affordable price. High performance disk was required so that backups would complete well within the limited nightly backup window, ensuring data would always be fully protected from disaster or error. Just as important, high performance would also ensure rapid data recovery, so that lawyers and support staff would not encounter any costly delays in retrieving and accessing data for clients.

Traditional hard disk-based storage, although faster than tape in randomly accessing data, is still subject to latency, as the mechanical head has to move to the data location on the disk platter. Solid State Disk slashes this latency to microseconds, so performance is many times

better. However, on a capacity basis, SSD is significantly more expensive than hard disk, making it an uneconomical choice for storing data long term.

The Solution: Tegile Intelligent Flash Arrays Balance Storage Performance, Cost, and Functionality for Growing Data

The Tegile was found to be an ideal solution. It is an advanced hybrid storage array that combines high-performance DRAM and Flash SSD with less expensive hard disk and a comprehensive set of data management and protection features to deliver both speed and capacity at an affordable price.

"I was immediately impressed with how Tegile accelerated and improved our backup operations," said Arthur Leeser, IT Director at LBBS Law. "Backups are significantly faster and I feel very comfortable with our ability to restore data very quickly from snapshots on disk. Switching to disk based backup has addressed our backup window issue and returned administrative time we used to spend managing physical tapes so we can work on higher priority projects."

Tegile's IntelliFlash architecture accelerates storage performance and utilizes SSD very efficiently. Rather than storing data and metadata together, with metadata being interspersed amongst data on disks, IntelliFlash organizes and stores metadata on high-speed devices with optimized retrieval paths. This accelerates every storage function within the system, raising

the performance of near-line SAS hard disk drives beyond the level of extremely expensive high-RPM SAS or Fibre Channel drives.

Tegile arrays use DRAM as an extremely fast level 1 read cache, and uses Flash SSDs as a second level of non-volatile read and write cache. Unlike systems which rely entirely on Flash for data storage (with an inherent danger of data loss), Tegile Array always protects user data by storing it permanently on spinning disks, while using faster Flash and the even faster DRAM as high-speed caches.

LBBS Law's hybrid array incorporates high capacity SAS hard disks to deliver 40 terabytes of usable storage, delivering the economical high capacity LBBS Law needs to accommodate its unrelenting data growth. In-built de-duplication, thin provisioning and compression mean that the law firm uses fewer disks than traditional systems to store the same amount of data. LBBS Law is compressing data by approximately 33%, so its 40 terabyte system is effectively providing 52 terabytes of capacity.

When LBBS Law saw that it was effectively gaining an additional 12 terabytes of reliable, high-performance storage capacity, the firm decided to put Tegile's claims of multi-tenancy, agile storage to the test. When they needed to add additional file share capacity, the IT department put primary data on the array and started using it as a high-performance Network Attached Storage (NAS) device as well.

The Result: Faster Backups and Agile Storage for File Sharing

"Tegile's arrays are so easy to deploy and configure for a multitude of uses that taking advantage of the extra available capacity for file sharing made sense," commented Arthur Leeser. "We have deployed virtualization to help us consolidate operations and be more efficient, but it places a lot of performance strain on storage. IntelliFlash takes virtualization in stride and we are very happy with its agility and how well it fits into our environment." In fact, our Tegile array has performed so well beyond its original use case as a backup accelerator that LBBS Law has added their Tegile storage as primary storage to support its growing needs for high performance file sharing in the future.

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