

CASE STUDY:

Global Law Firm Shrinks Storage TCO, Even as Key Discovery Data Mounts

Howard Rice Hits a Storage “Grand Slam”: Rich Functionality, High Performance, and Operational Stability, with Reduced TCO

IT veteran Matt Reynolds says there’s a price to be paid for dependency on traditional storage architectures that come at a premium in overall TCO (total cost of operation).

As requirements for data storage grow at Howard Rice, a leading global law firm headquartered in San Francisco, TCO is top of mind for Reynolds, who ponders the “key discovery data” comprising information and images about cases currently in litigation. That data must be rapidly accessible by lawyers, and easily manageable by storage administrators. For Reynolds, CIO at Howard Rice, this need called for a new approach to managing the ever-growing terabytes of corporate data in his charge, and a better solution for managing TCO.

Facing a challenge of mounting storage requirements, Reynolds found a nugget of wisdom in a white paper from Nimble Storage, which focused on a storage model that provides real-time caching of frequently accessed data in high performance flash memory while writing all data to low-cost SATA drives. “What really caught my eye was Nimble’s approach to storage using SSDs (solid state drives) for frequently accessed data. We were at a convergence point ourselves, with our expanding data stores and growing TCO.”

New Efficiencies with SharePoint

That’s when Reynolds decided that a move of the company’s Microsoft SharePoint data stores to a Nimble CS240 converged storage array could provide the performance to keep data access times within his demanding specifications. “We did not conduct any official trials with the Nimble system,” he said. “Quite simply, the time was right.”

“We knew there was quite a lot of duplication in our SharePoint data, and we were looking to take advantage of the capacity optimization that Nimble promised. When we parked our data on the Nimble array, the initial results were

Storage Profile: Howard Rice

Challenges

- Data stores growing, taxing existing storage architecture
- Uncontrolled storage TCO

Solution

- Deploy two Nimble converged storage arrays

Immediate Benefits

- Capacity optimization and zero-copy cloning shrinks storage requirements immediately
- SSD/SATA storage architecture deliver measurable improvements in access to critical case files
- TCO reduction even as storage requirements increase

Long-Term Objectives

- Complete the move of “key discovery data” to Nimble storage array
- Fully deploy second Nimble array for offsite replication
- Continue the move to virtualized storage servers

awesome. Virtually immediately, we began to see considerable reduction of storage in our unstructured data, which consists of files in many native formats used in cases. And that's just the start of a larger move of our key discovery data to Nimble."

He adds that the new regimen for managing SharePoint data is a natural fit for Nimble. "Our SharePoint environment is highly 'read only.' We publish quite a bit of content, and we realized that we could leverage the Nimble array's SSD technology for speed of data access, along with its zero-copy cloning capacity." Zero copy cloning enables entire storage volumes to be cloned with no requirement for additional storage. Reynolds calls zero copy cloning a "huge benefit that saves us lots of money."

Reynolds and his team had already virtualized their SharePoint environment, and the move of SharePoint data to Nimble set the stage for a longer-term approach to virtualization. "We knew that the Nimble array could provide a framework for virtualization, but we had some trepidation in making the move." But that trepidation quickly dissolved, as Reynolds and team found that the CS240's highly intuitive GUI made storage setup for virtualized servers a routine operation.

"Impressive" Performance Numbers

With offsite storage serving as the company's disaster recovery repository, Reynolds also faced the challenges of replicating the firm's key discovery data. His existing storage system was dragging down performance, but, he added, "we are removing that issue altogether with the Nimble solution. We are looking at our replication performance with the Nimble array, and the numbers we're getting are impressive and promising."

Sheer system performance was not originally a consideration, he said. "The storage industry has its 'IOPS,' or Input/Output Operations per Second, but most storage administrators do not monitor IOPS unless a problem occurs. Looking ahead, I had a pretty good idea that the performance would be as good as the platform was innovative."

No Time for Downtime

In the existing storage environment at Howard Rice, said Reynolds, storage administrators could not handle their own system upgrades, leaving the company in a precarious position. In one case a system went down, and all data on the system was inaccessible for three days. "But we've overcome that risk with Nimble."

Reynolds zeroes in on alerts. "Alert notifications are critically important to us, and we really like the alerting functionality in Nimble. Alerts give our front-line personnel the chance to see issues that are brewing and to make a proactive response."

"The big difference today," said Reynolds, "is that we can run our storage operations for a lot less money, with the same reliability and superior performance. With Nimble, the economics of storage are vastly in our favor. I once said that if we could get the functionality, performance and

operational stability we needed, but with a significant reduction in TCO that we've seen with Nimble, it wouldn't be a home run, but a grand slam."

Next Steps

Today, with SharePoint stores on the Nimble array, Reynolds has just invested in his second Nimble array, installing it at a colocation site as a repository for disaster recovery data. "We're just getting that array up and operational, but the metrics we're seeing so far are very promising."

Reynolds adds that Nimble has the potential to define a more sweeping approach to storage. "Nimble has the foresight to redefine replication and capacity optimization, starting with key functional characteristics today that really define 'smart storage.'"

His group is also rethinking its virtualization strategy. "We know that whichever platform – VMware or HyperV – we standardize on, Nimble will support it."

But Reynolds returns to his bottom-line message: "Our TCO is measured by initial capital expenses, ongoing operating expenses, and the cost of the required storage capacity. You have to look at storage as a four- to five-year investment, and that's real money. But with Nimble, the cost is pennies on the dollar as compared with traditional storage architectures."

He adds: "Nimble has become a major part of our overall storage solution across the fabric of the firm."

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U.S. News and World Report, in its 2010 U.S. News — Best Lawyers "Best Law Firm" rankings, rated a number of Howard Rice's practice areas among the top in the nation.