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## Success Story

# Robinson, Bradshaw & Hinson Boosts Productivity with NetApp Solutions

ROBINSON BRADSHAW & HINSON

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### KEY HIGHLIGHTS

**Industry**  
Legal

#### The challenge

Develop scalable storage and a disaster recovery plan for the legal firm's growing needs.

#### The solution

Implement NetApp® FAS3020 cluster with NetApp SnapManager® tools to support virtualized Microsoft®-based environment.

#### Benefits

- Instantaneous backups of growing, business-critical databases
- Fourfold increase in backup success
- Reclaimed productivity for legal and IT staff
- 96% improvement in RPO
- \$20,000-plus annual savings in tape backup-related costs

### CUSTOMER PROFILE

The practice of law has changed drastically since the postwar expansion days of 1960—the year Robinson, Bradshaw & Hinson ([www.rbh.com](http://www.rbh.com)) was founded. The firm focuses its activities from its Charlotte, North Carolina, headquarters, with nearby Carolinas offices in Rock Hill and Chapel Hill.

The firm has managed to keep ahead of the technological curve in the digital age with industry-leading practice areas in genomics, intellectual property, and biotech. Keeping the focus on the client is one reason why more than one-third of RBH's more than 125 lawyers are listed in *The Best Lawyers in America® 2010* (© 2009, Woodward/White, Inc., Aiken, South Carolina).

The firm serves individuals and enterprises operating in domestic and foreign markets; municipal, county, and state agencies; as well as healthcare institutions, financial organizations, and nonprofit groups.

### THE CHALLENGE

Practicing law in the connected world has its benefits: Documents are delivered online instead of in file boxes, and communications are indexed and searchable. While this makes the attorneys' jobs easier, having a client suddenly come in with 150GB of case files can present a real challenge for a small IT department.

With more than 100 lawyers working multiple cases, the firm's storage needs were escalating quickly. The firm had hundreds of gigabytes of Microsoft Word documents and several terabytes of litigation data spread across multiple servers and a Dell network-attached storage appliance. All of the firm's servers were running on local disk storage, and IT was constantly adding more hardware to keep up.

"It was literally out of control. Every month we were on the verge of running out of space, so we would spend weekends deploying servers. We were wasting a tremendous amount of time just moving data around because we'd run out of space on a particular system," recalls Scott Vintinner, Network Services manager for RBH.

As the discovery data coming in with new cases multiplied, it became difficult to scale the data center to meet the demand. "We would try to plan ahead and buy enough disk space, but the growth would come in unexpected places. Sometimes it was an Exchange server, the next month it would be a file server. We were already at full capacity."

The situation was bad for IT as well as the lawyers: Each time the RBH team added more storage, the firm experienced downtime. "The lawyers wanted to work over the weekends and have access to their documents.

# “NetApp walked us through setting up an aggregate, and it just seemed like magic. We’ve never had to take a class or become SAN experts to make it work.”

**Scott Vintinner**

Network Services Manager, Robinson, Bradshaw & Hinson

Whenever you have an attorney that can’t work, it costs the firm money and we’d hear about it,” Vintinner recalls.

As a result, critical data was at risk, and the firm’s nightly tape backups were expensive, time consuming, and unreliable. The tape backup was so erratic that RBH had to hire an additional IT staff member to supervise the process. “We were running backups from 8 p.m. to 8 a.m. the next morning,” Vintinner explains. “We’d spent over \$100,000 on a tape backup solution and we were still having trouble making reliable backups.”

The team knew it needed to virtualize its storage environment, but wasn’t sure it had the technical expertise to establish and manage its own LUNs and RAID groups. “Being new to the whole SAN thing, we didn’t want to hire any new staff or lose our current staff to weeks of training,” Vintinner recalls.

## **THE SOLUTION**

RBH decided to virtualize its Microsoft Exchange and SQL Server® environment on a NetApp FAS3020 cluster supporting a VMware® ESX Server. In the process the firm was able to eliminate several file servers by replacing them with the NetApp integrated CIFS server.

Although other vendors aggressively bid on the project, the NetApp solution delivered the backup reliability and scalable storage the firm needed. What’s more, IT found a solution it could manage without a significant investment in staff resources. “NetApp walked us through setting up an aggregate, and it just seemed like magic. We never had to take a class or become SAN experts to make it work,” says Vintinner.

Using NetApp Snapshot™ technology—a feature of the Data ONTAP® 7G operating system—RBH has multiple point-in-time backups of its data available on the fly with no system drag and no downtime. Because a Snapshot copy only contains pointers to the host data, IT can save multiple copies of that data during the day without eating up storage.

The team is using NetApp SnapManager for Microsoft SQL Server to automate Snapshot backups and restore data from its Microsoft SQL databases, which are crucial when handling time-sensitive litigation. NetApp SnapManager for Microsoft Exchange provides hourly backups of the growing influx of e-mail over the firm’s 250 accounts, and NetApp SnapManager for Virtual Infrastructure automates taking Snapshot copies of virtual machine data and verifies Snapshot copy integrity.

RBH also chose NetApp SnapMirror® to replicate data to an additional NetApp FAS3020 at a disaster recovery (DR) site—a decision Vintinner says gives him incredible peace of mind: “Last year, a law firm across town had a flood and was locked out of its system for days—that was really the genesis of this project, to prevent that from ever happening here.”

## **BUSINESS BENEFITS**

### **Nightly 12-hour backups reduced to minutes**

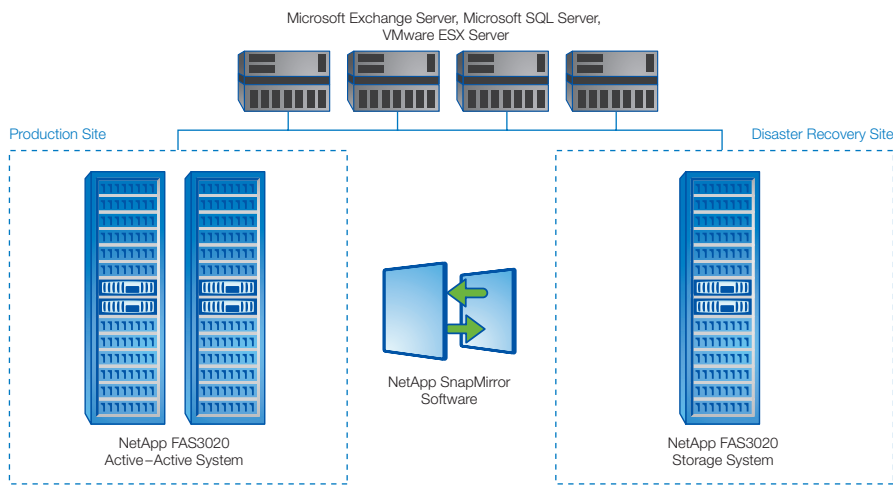
With NetApp SnapManager tools, the RBH IT department has gone from a labor-intensive 12-hour nightly tape backup routine to taking automated hourly Snapshot copies of its 10TB of data. “With NetApp SnapManager tools, we’ve basically freed up an entire IT staff person,” Vintinner says. “We can be much more proactive.”

### **Fourfold improvement in backup success**

Since using NetApp Snapshot, the firm’s backups are much more reliable. “We probably had a 25% success rate with tape backup—at least one failure a day,” recalls Vintinner. “Now it’s up to 99%.”

### **96% improvement in recovery point objective (RPO)**

Each time a Snapshot copy is taken, only the data blocks that have changed since the previous Snapshot copy are automatically



**Figure 1) Robinson, Bradshaw & Hinson data protection and disaster recovery infrastructure.** NetApp SnapManager for Microsoft Exchange Server, NetApp SnapManager for Microsoft SQL Server, and NetApp SnapManager for Virtual Infrastructure automate the snapshotting of data and verify data integrity.

replicated to the firm's disaster recovery site via SnapMirror. This way, the backups consume very little bandwidth and can be implemented more frequently. Hourly Snapshot copies bring the firm's RPO down to an hour or less, instead of up to 24 hours with tape—a 96% improvement. "We can get a full backup every hour with no impact on performance. There's just no way we could have done that before," says Vintinner.

The firm's lawyers now have the peace of mind of knowing an accidentally deleted document can be recovered in minutes, and that access to their files won't be interrupted by unplanned downtime.

#### **Recovery time objective (RTO) now hours, not weeks**

Using SnapMirror to recover data from the NetApp FAS3020 at the DR site instead of recovering from vaulted tapes brings RTO down to a couple hours, according to Vintinner. "I can only imagine the horror of trying to find the tapes and restore them onto bare metal servers. Half the time the tapes wouldn't even work," he says. "It would have taken weeks to rebuild the servers. Once we position more ESX servers off site, we'll be able to reduce our failover time from hours down to minutes, which is very exciting."

#### **Saving US\$6,000 in tape costs**

With NetApp SnapMirror and Snapshot technology, RBH is saving more than US\$6,000 per year in tape media. "Tape isn't as cheap as you might think. Our rotation was 150 tapes per month, and with our high error rate we were replacing them frequently. At US\$80–100 per tape, that's a big expense. It's one of the things we took to the board of directors when we were looking at NetApp," Vintinner recalls. The team is realizing additional savings from the elimination of its daily tape vaulting and delivery service as well as expensive support agreements for tape backup hardware and software.

#### **Regaining control over storage**

With the combination of virtualization and NetApp solutions, RBH has regained control over its unmanageable storage situation. Before consolidating, the team was considering air conditioning and power upgrades. However, by using NetApp deduplication to eliminate redundant data objects, the firm has realized capacity savings of 50% in its VMware environment, helping to make the infrastructure upgrades unnecessary. "As much as we've grown our capacity, we've been reducing the amount of rack space. Now it's more likely that we'll pull a box out than put in a new one," Vintinner says.

#### **Reclaiming 50 days of productivity per year**

Because the firm's lawyers are now able to access the system at any time, they can work weekends with no unexpected interruptions. And even when backups are running, the system doesn't drag. When a client comes in with 150GB of e-mail on a new case, it's no problem. "We just dump it into the system and it gets indexed. Before, we would have bought a new disk, set up a storage environment over a weekend—it would have been a nightmare," Vintinner says.

#### **Secure for the future**

Together with NetApp partner Internetwork Engineering, RBH has the strategic resources it needs to move forward with confidence. "Internetwork Engineering has been great through all our major projects for the last 10 years—from putting in our IP telephony to helping us with the NetApp implementation," Vintinner says.

With improved client response time, better backup processes, and faster recovery, the firm looks forward to celebrating its 50th anniversary knowing it's ready for the next half century. When questions come up, the IT team can get the answers it needs.

"We use the NetApp customer support site

“As much as we’ve grown our capacity, we’ve been reducing the amount of rack space. Now it’s more likely that we’ll pull a box out than put in a new one.”

**Scott Vintinner**

Network Services Manager, Robinson, Bradshaw & Hinson

[NOW™] a lot. We tend to look up things on our own. But if we get to the point of actually calling tech support, we feel like we’ve studied up and done our homework,” Vintinner concludes. “Every time I’ve called NetApp support, there’s always been an expert there to get the problem solved.”

#### SOLUTION COMPONENTS

##### NetApp products

NetApp FAS3020C active-active system

NetApp FAS3020

NetApp SnapManager for

Microsoft SQL Server software

NetApp SnapManager for

Microsoft Exchange

NetApp SnapManager for

Virtual Infrastructure

NetApp SnapMirror

NetApp deduplication

NetApp Snapshot software

Data ONTAP 7G operating system

##### NetApp Global Services

NetApp SupportEdge Standard

##### Protocols

NAS-CIFS, IP SAN (iSCSI)

##### Third-party products

Open Text DM document management

Anacomp CaseLogistix litigation support software

Thompson Elite law firm management software

##### Environment

Server platform: VMware ESX Server, Microsoft Windows® Server 2003

Applications: Microsoft Exchange Server 2003

Databases: Microsoft SQL Server 2000, 2005

Users: 250

##### NetApp partner

Internetnetwork Engineering

[www.ineteng.com](http://www.ineteng.com)



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