



NetApp®
Go further, faster

Success Story

Zuckerman Spaeder LLP Defends Availability of Microsoft Apps, Wins with VMware on NetApp



Another NetApp
solution delivered by:



KEY HIGHLIGHTS

Industry
Legal

The challenge

Protect access to sensitive data, enable availability of business-critical Microsoft® applications, and reduce the data center footprint.

The solution

Virtualize applications with VMware® on NetApp® unified storage to increase efficiencies and reduce costs; deploy NetApp SnapMirror®, SnapRestore®, and SnapManager® software to streamline backup and recovery processes and deliver business continuity.

Benefits

- 99.99% uptime for critical applications
- 24x7 availability of Microsoft Exchange e-mail
- 95% reduction in RTO, less than 2-hour RPO
- 68% less storage needed for VMware environment
- 30% cut in data center footprint

CUSTOMER PROFILE

Zuckerman Spaeder LLP is a national litigation firm with attorneys practicing in a range of areas, including complex commercial law, white collar crime, government ethics, legal ethics, food and drug law, insurance, and securities. Founded in 1975, the firm has offices in Washington, D.C.; New York; Tampa; Baltimore; and Wilmington, Delaware. In 2009, the firm was named a finalist for “Litigation Boutique of the Year” by *The American Lawyer*. The 2010 edition of *The Best Lawyers in America* recognizes 22 Zuckerman Spaeder attorneys and gives the firm top national ranking for white-collar criminal defense.

THE CHALLENGE

Protect business-critical applications and data, improve efficiency

Clients turn to Zuckerman Spaeder to resolve their most challenging legal issues. Success in this environment requires both expediency and efficiency—clients and court dates drive schedules, and a single case can demand collaboration among dozens of lawyers and legal staff who handle millions of litigation documents. Managing data proliferation and ensuring uptime of communications and collaborative tools top the list of challenges facing the firm’s IT department.

Shawn Mitkowski, chief information officer at Zuckerman Spaeder, says that in 2007 his firm acknowledged the limiting aspects of its existing IT infrastructure: “Our entire business, including critical Microsoft, document management, and Citrix systems, ran on redundant physical servers with more than 8TB of direct-attached storage arrays. The infrastructure was increasingly challenging to manage from a human bandwidth perspective. The existing redundancy built into the infrastructure was expensive to maintain, which became a budgetary issue year over year.

“In addition,” continues Mitkowski, “the full backups were beginning to exceed our available weekend window. We were always extremely cautious about the firm’s data protection, and therefore built redundant physical systems to protect it. The process for recovering data and/or rebuilding servers became increasingly complex and time consuming, so any failure event had the potential to disrupt ongoing casework. In a legal environment, clients and courts have low tolerance for infrastructure-related delays.”

“Zuckerman Spaeder critically relies on Microsoft, Interwoven, Citrix, and accounting applications to meet client and court commitments. With this VMware infrastructure built on NetApp storage, the firm can reliably and cost-effectively protect these critical services during the business day and maintain business continuity in the case of a disaster.”

Shawn Mitkowski

Chief Information Officer, Zuckerman Spaeder LLP

THE SOLUTION

Deploy VMware on NetApp for business continuity, manageability

To build a more automated and resilient infrastructure capable of supporting business demands, including efficiency objectives, Mitkowski's team engaged ePlus inc. for advice. A leading provider of technology solutions, ePlus is a Star-level solutions partner in the NetApp Partner Program and has achieved Virtualization Specialization. Together they architected a solution built on VMware and began to look for complementary virtualized-storage technology. The decision to go with NetApp was based on advantages in reliability, advanced storage features for the VMware ESX environment, a unified architecture with same-box multi-protocol support, ease of use, and support.

Working with ePlus, the IT team deployed NetApp FAS3040 and FAS2050 systems that provide storage resources to 300 attorneys and other members of the legal staff.

NetApp supports access via NFS from the VMware virtual-server environment, via FC from the firm's footprint of physical-server systems, and via CIFS for Windows® file shares and other documents.

Approximately 75% of the Zuckerman Spaeder application environment has been transitioned to the VMware environment. Systems and applications running on six VMware vSphere™ 4.0 ESX hosts include Microsoft Exchange Server 2007, Microsoft Office SharePoint® Server 2003, Microsoft SQL Server® 2000, SQL-based Elite accounting software, Autonomy Interwoven document management, LexisNexis Concordance litigation support, Citrix XenApp, and Good Mobile Messaging.

NetApp SnapManager software simplifies data management, including configuration, backup, and recovery operations for Exchange and SQL Server environments. NetApp SnapManager for Virtual Infrastructure works with VMware vCenter™ to give Mitkowski's IT team an easy-to-use tool to create application-consistent backups for virtual machines or to instantly recover datastores, virtual machines, or individual files within a virtual machine guest.

For disaster recovery (DR), Zuckerman Spaeder uses NetApp SnapMirror technology to replicate systems and data to one of the NetApp FAS2050 systems deployed at the firm's business continuity site in Virginia. SnapMirror's built-in network compression,

NetApp deduplication technology, and a Cisco Wide Area Application Services (WAAS) WAN optimization solution enable high-speed, highly efficient replication between the primary data center in Washington, D.C., and the DR site located in Ashburn, Virginia.

BUSINESS BENEFITS

Downtime? Case dismissed!

The VMware-on-NetApp infrastructure helps Zuckerman Spaeder provide uptime for essential communication and collaboration systems and protects access to the firm's more than 40 million case-critical images. “Our firm requires 24x7 availability of e-mail,” Mitkowski emphasizes, “and this infrastructure is helping us deliver that for Exchange, SQL Server, and other mission-critical applications.”

NetApp point-in-time copy, backup/restore, and replication technologies have helped eliminate protracted backups and recoveries. Mark Harris, network manager at Zuckerman Spaeder, explains the impact on recoverability and staff productivity: “Because there's no performance hit and minimal consumption of storage space, we can afford to make frequent backups. Most of our recoveries now are from NetApp Snapshot™ copies, and the process typically takes less than five

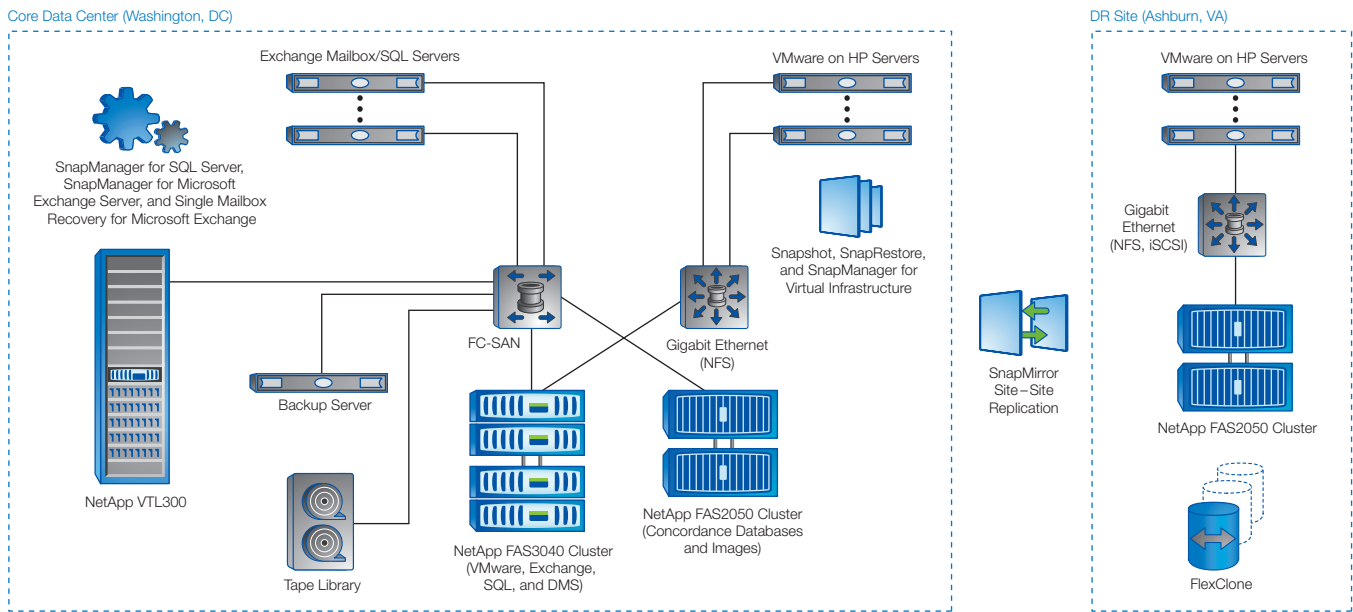


Figure 1) Zuckerman Spaeder's storage infrastructure.

minutes. In the past, recovering from tape took hours. Restoring e-mail was even more difficult—in one case, two IT employees worked for two days on a single recovery. Today we use NetApp Single Mailbox Recovery for Exchange software and retrieve e-mails in minutes. The process is simple, and we've nearly eliminated recovery wait times for our legal staff."

Leveraging NetApp SnapManager software, the IT team has automated replication of critical systems to the DR site, tailoring schedules to application-specific recovery point objectives (RPOs). The average 2-hour RPO for critical systems represents a 92% improvement over the 24-hour RPO achievable in the former environment.

Harris cites even greater improvement in recovery time: "We estimate a 95% reduction in recovery time for business-critical systems. In the previous infrastructure, it would have taken weeks to do what we're now doing within a four-hour window. Another point worth making," continues Harris, "is that the business plan for this infrastructure included a full-time engineer to manage business continuity/DR processes. In the past, recovering from errors or failure events not only consumed considerable IT resources, it also put at risk the firm's progress on case work.

With the NetApp solution in place we haven't needed to fill that position. Today we're protecting the productivity of both IT and legal staff by delivering greater levels of availability with greater simplicity."

The administration rests

NetApp's unified architecture allows administrators to more easily align applications and storage to meet performance, protocol, and capacity needs for both environments. "The firm used to require a two-week lead time to add capacity to a server," Harris notes. "Today we can scale volumes and add LUNs in real time without disrupting operations. It takes just 15 minutes to add capacity, and we're adding to a consolidated storage pool instead of making huge upfront investments in storage silos."

Mitkowski adds, "Many solutions have bolt-on tools that are not completely integrated. In contrast, NetApp gives us a unified and integrated interface that spans the entire product line, as well as application-aware data management tools and advanced features that integrate with and complement our VMware environment. We can deploy server or storage resources within minutes while achieving management efficiencies simply not possible with the old infrastructure."

Proving the case for efficiency

Administrative efficiency tells just part of the savings story at Zuckerman Spaeder. Other efficiencies include:

- 68% capacity savings using NetApp deduplication
- 77% improvement in server utilization
- 30% reduction in rack space
- 70% drop in power and cooling costs
- 35% longer UPS runtime

Closing arguments: business-focused support, protected business services

Harris recalls that during the evaluation process the firm had a preview of NetApp Global Support. He says, "We were still in the design phase of the project when we experienced a litigation server failure that brought production to a screeching halt while we tackled the monumental task of physically copying back tens of millions of small files—more than 3TB of data. Without asking for a commitment on the virtualized-infrastructure project, NetApp stepped in and helped us achieve resolution days faster than if we had had to rely on our own tape-based recovery. While NetApp's responsiveness was not a sole decision-maker, it was certainly a significant data point."

“In the past, recovering from tape took hours. Restoring e-mail was even more difficult—in one case, two IT employees worked for two days on a single recovery. Today we use NetApp Single Mailbox Recovery for Exchange software and retrieve e-mails in minutes. The process is simple, and we’ve nearly eliminated recovery wait times for our legal staff.”

Mark Harris

Network Operations Manager, Zuckerman Spaeder LLP

Harris also gives credit for the project’s success to business partner ePlus: “The ePlus team helped design, size, and deploy the NetApp storage solution, as well as plan and manage our migration from Exchange 2000 to Exchange 2007 in the new infrastructure. Their expertise ensured we made wise decisions that saved the firm considerable staff and budget resources. Supplementing our team with their resources absolutely accelerated and bolstered the success of the Exchange rollout.”

Summarizing, Mitkowski says, “Zuckerman Spaeder critically relies on Microsoft, Interwoven, Citrix, and accounting applications to meet client and court commitments. With this VMware infrastructure built on NetApp storage, the firm can reliably and cost-effectively protect these critical services during the business day and maintain business continuity in the case of a disaster.”

SOLUTION COMPONENTS

NetApp products

NetApp HA FAS3040 and FAS2050 storage systems
Data ONTAP® 7G operating system
Deduplication and Snapshot technologies
SnapManager for Microsoft Exchange Server
SnapManager for SQL Server
SnapManager for Virtual Infrastructure
Single Mailbox Recovery for Microsoft Exchange
SnapMirror
SnapRestore
SnapDrive® for Windows
VTL300

Protocols

CIFS, NFS, FC

NetApp Global Services

NetApp SupportEdge Premium

Environment

VMware vSphere ESX 4.0
Windows 2003
Microsoft Exchange Server 2007
Microsoft Office SharePoint Server 2003
Microsoft SQL Server 2005
Citrix XenApp 5
Cisco WAAS WAN
Autonomy Interwoven
LexisNexis Concordance
Good Mobile Messaging
HP servers

Partner

ePlus inc.
www.eplus.com

NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate performance breakthroughs. Discover our passion for helping companies around the world go further, faster at www.netapp.com.



www.netapp.com

© Copyright 2010 NetApp, Inc. All rights reserved. No portions of this document may be reproduced without prior written consent of NetApp, Inc. Specifications are subject to change without notice. NetApp, the NetApp logo, Go further, faster, Data ONTAP, RAID-DP, SnapDrive, SnapManager, SnapMirror, SnapRestore, and Snapshot are trademarks or registered trademarks of NetApp, Inc. in the United States and/or other countries. ePlus is a registered trademark of ePlus inc. Microsoft, Windows, SharePoint, and SQL Server are registered trademarks of Microsoft Corporation. VMware is a registered trademark and VMotion, vSphere, and vCenter are trademarks of VMware, Inc. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such. CSS-6291-0310