

Application Brief

Risk Enterprise Management Stays Agile, Slashes Costs with VMware on NetApp



Highlights:

INDUSTRY

Insurance

CHALLENGE

Eliminate server sprawl, ensure business continuity, and reduce costs.

SOLUTION

Champion implemented an IT Simplification and Business Continuity solution using VMware® on NetApp® to accelerate application/service rollout, enable fast response to catastrophic claims events, achieve cost-efficient DR, and slash IT costs.

Components:

NetApp FAS3020HA System
NetApp FlexVol and Deduplication
NetApp SnapRestore Software

Protocols:

NetApp IP (iSCSI) SAN and CIFS

Environment

VMware
Microsoft Windows® Server 2003
IBM Lotus Notes Software
Citrix Software

RESULTS

- ✓ Gained ability to expand/contract storage in minutes
- ✓ Achieved fast backup/recovery for 24x7 operations
- ✓ Saved >\$120,000 annual lease + power costs
- ✓ Realized two-year ROI on virtual infrastructure
- ✓ Eliminated of 20% annual rise in IT costs

Customer Profile

Risk Enterprise Management Limited (REM) provides claims, managed care, and risk management solutions to the property and casualty insurance industry. The company employs 400 professionals and delivers services globally to Fortune 1000 companies, program managers, captive managers, insurers, reinsurers, brokers, and agents.
(Source: www.remltd.com).

The Challenge

Reduce costs while dramatically improving business reactivity and resilience

Responsive service and exceptional control of customer loss costs help differentiate REM from its competitors. But maintaining the highest levels of efficiency can be difficult in the face of rising IT infrastructure costs, expanding regulatory requirements, and frequent disaster events.

“Responding to a catastrophic claims event can require as much as a 25% ramp in personnel and supporting infrastructure,” says Brian Tompkins, REM senior manager of IT Infrastructure and Security. “We need systems in place quickly to process the thousands and thousands of claims that arise out of an environmental or natural disaster such as a hurricane or tornado. Equally important to business efficiency is being able to release or reassign those resources at the end of the claims process—an often-unpredictable time frame that can range from weeks and months to years.”

REM recognized that its sprawling server infrastructure with direct-attached storage was hampering responsiveness and raising costs. Ordering, installing, configuring, and testing a server consumed as much as three weeks—too long for offices that must start processing claims within just one or two days of an event. Also, leasing costs were exorbitant: bringing a new application online generally meant adding a new server that would stay online for the full three-year lease period, even if the resource was no longer required.

Tompkins's team was tasked with updating the company's infrastructure to improve responsiveness, deploy products faster, meet compliance regulations, and ensure disaster recovery to support 24x7 operations. Complicating the challenge was one caveat: reduce IT costs in the process.

THE SOLUTION

Champion Solutions Group, a technology solutions provider, spearheaded the efforts to identify the best solution. Using a time-tested methodology and consolidation toolset, Champion worked with the REM team to capture current utilization and load data during peak quarter-end closeout. The results showed glaring—and costly—underutilization of server resources. From this data, the team was able to clearly see the benefits of moving to a virtual infrastructure based on VMware. Champion also advocated deploying centralized storage to ensure business continuity and to allow utilization of tools such as VMotion®, which enables zero-downtime migration of virtual machines.

Storage selection was based on three key deliverables from NetApp: (1) superior redundancy at the best price point, (2) multiprotocol support with the ability to leverage standard security models, and (3) manageability. A NetApp FAS3020 system in an active-active controller configuration assures high availability for the REM VMware environment, which includes 40 virtual servers running on three physical servers connected using iSCSI to the NetApp FAS3020HA. Simultaneously, NetApp's system provides CIFS-based NAS storage for Windows® end-user clients.

The VMware on NetApp virtualized environment supports critical systems, including Microsoft® Windows Server 2003 Enterprise Edition with Active Directory, IBM Lotus Notes, Web applications, and the customized REM claims management system. A Citrix application delivery platform facilitates global access to the REM claims management system.

“Moving to a virtual environment built on NetApp storage has expanded our ability to put information in people’s hands, enhanced our business reactivity, and made sure that our infrastructure will support business needs over time. We’ve also benefited from the experience and expertise of Champion Solutions Group. Projects of this magnitude rarely go exactly as planned, so you need technology-savvy partners.”

Brian Tompkins, Sr. Manager of IT Infrastructure and Security – Risk Enterprise Management

BUSINESS BENEFITS

Faster, simpler expansion/contraction to react to business needs

The new infrastructure ensures that REM can deliver critical IT services where and when needed. Bringing a server online, a process that took more than three weeks in the past, now takes less than an hour. Rapid deployment enables almost immediate response to catastrophic events, even during back-to-back disasters.

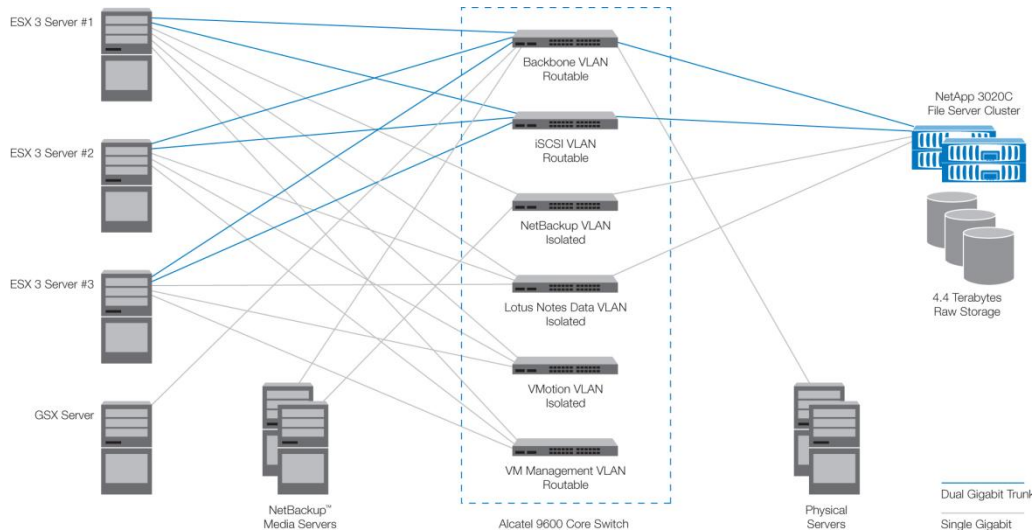
Tompkins says that REM uses NetApp FlexVol® technology to rapidly allocate storage capacity to meet operational needs and streamline new-product testing. “Storage requirements are not always well defined at the beginning of an engagement or test process. In the past, increasing a volume was fairly easy, but decreasing it was nearly impossible. That made it very difficult to effectively manage resources to accommodate systems and user requirements. For example, when our analysts ran their intensive financial modeling processes, other users experienced problems saving files. Today, NetApp’s technology allows us to easily increase or decrease quotas to match requirements so that we do not have to overbuy capacity or risk having users or applications run out of space.”

**Reduced cost and complexity:
>\$120K annual lease + power savings, IT cost control, and two-year ROI**

The REM team achieved consolidation goals within just four months. Tompkins estimates that the elimination of 35 physical servers represents approximately \$105,000 annual lease savings and another \$15,000 in reduced power costs. The company expects a two-year ROI on the entire virtual infrastructure, including servers, storage, network upgrades, software licensing, installation, training, and support costs.

REM has also eliminated the 15% to 20% annual IT-cost escalation that had been the trend for the previous three years. Tompkins attributes some of the savings to simpler administration. “Each year we brought on new servers with direct-attached storage to support application development and testing, handle catastrophic claims events, and address other fluctuating business needs. Unfortunately, we were never able to give those resources back, so we continued to pay leasing and administration costs on them. We started this project with two large, fully populated racks in our data center. Since moving to the VMware on NetApp environment, one rack is completely empty.”

REM maintains a lean and very efficient IT department, which manages the entire corporate infrastructure. “Concerns over new staffing requirements were foremost in our analysis,” Tompkins stated. “As with many new technologies, implementation and management can require dedicated personnel, reducing the cost benefits. The VMware and NetApp solution required no additional headcount.



VMware & NetApp Architecture

“Overall,” adds Tompkins, “the new infrastructure is decidedly simpler to maintain than our original DAS environment and other SAN solutions not from NetApp, which would have required mainframe DASD-class storage expertise. NetApp’s iSCSI solution was a better value upfront and allows us to leverage existing administrative staff. We did not have the luxury of hiring a dedicated staff to manage storage.

“In addition to being a requirement of the project, reducing our IT costs helps us contribute directly to one of the company’s driving objectives—to reduce our customers’ total loss costs associated with the management of claims.”

Business continuation with reduced risk of downtime

The new infrastructure helps REM minimize the risk of information loss or application downtime, even as the business transitions to a 24x7 environment. The solution architected by Champion helps maintain business continuity using three essential technologies from NetApp: (1) NetApp Snapshot™ technology, to make frequent copies of critical data; (2) NetApp SnapRestore® technology for within-seconds file or volume recovery; and (3) an active-active controller configuration for nondisruptive failover.

“NetApp helps us to deliver immediate and accurate information to adjustors, partners, and customers,” emphasizes Tompkins. “We’ve experienced no storage-related failures since implementing the solution from NetApp. NetApp’s technology also gives us critical recoverability. Just recently, when our accounting staff discovered a corrupted database, they were able to recover their financial data in minutes. Without NetApp Snapshot technology, they would have lost at least four hours of work.

“By providing better redundancy and faster backup/recovery, NetApp’s solution lets us offer a larger window of access to applications. That’s

essential as we work toward maintaining 24x7 operations to support the needs of Fortune 1000 customers and an increasingly global business.”

An architecture investment that keeps on giving: security, flexibility, and longevity

Tompkins points out that NetApp helps REM meet recoverability requirements associated with regulatory compliance. Because REM processes personally identifiable data, the company must be able to meet the stringent compliance goals of each of its client organizations.

NetApp’s solution also enabled seamless transfer of the REM Active Directory security model without requiring measure-by-measure translation of security settings. The REM Windows administration team can manage user CIFS shares on the NetApp system without having to learn a new platform and without requiring root access to the storage system.

“Implementing the VMware on NetApp infrastructure has given us much-needed flexibility to support both current and future business needs,” comments Tompkins. “For example, if at some point we decide to integrate our applications based on UNIX®, we will not have to buy a new storage platform. We’ve been extremely happy with the performance and simplicity of iSCSI, but our UNIX team may prefer to use FC—either way, we’ll be able to leverage our existing NetApp system.

“We expect that NetApp’s space-reduction technologies such as thin provisioning and deduplication will help us optimize our existing storage usage and reduce expansion costs. The space savings will also allow us to more cost-effectively implement data retention policies to match specific claims—for example, while auto claims are generally settled very quickly, workers’ compensation claims often require that we maintain online data for years.

“Another reason we have standardized on NetApp’s solution is that we anticipate taking advantage of NetApp’s replication technology to implement our own hot site for disaster recovery. In the event of a full data center outage, it will take about 36 hours to fully recover our critical systems at an outside recovery facility. As our business expands, we will need a much faster return to operation, but that level of recovery service would be prohibitively expensive at a third-party facility. In contrast, if we utilize NetApp’s technology and VMware servers, we’ll be able to very quickly recover our critical infrastructure in a very small footprint. We recently tested the process in-house and proved that we could successfully recover our VMware and Active Directory environments in less than two hours.

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