



NetApp™
Go further, faster

Success Story

DCI Engages ISG to Deploy NetApp for Savings Plus Cloud-Based ITaaS for Banks



Another NetApp solution delivered by:



KEY HIGHLIGHTS

Industry

Financial services

The challenge

Implement storage for server consolidation project to improve efficiency, disaster recovery, business continuity, and flexibility for delivering IT as a Service (ITaaS).

The solution

Implement NetApp® storage to complement VMware® for cost savings, data/business protection, plus cloud-enabled IT service delivery.

Benefits

- Enable within-minutes, automated disaster recovery at half the cost
- Save >\$125K in annual power/cooling costs
- Manage >100TB with 1 FTE
- Reduce data center footprint by >75%
- Achieve 3-year ROI of >166%

CUSTOMER PROFILE

DCI provides full-service bank technology and processing solutions to the financial industry. Headquartered in Hutchinson, Kansas, DCI's advanced banking solutions include the iCore® bank processing and management system, imaging, Internet banking, networking, teller automation, ATM/card services network, and backroom services. In 2008, iCore won the *BankNews* Innovative Solutions award for the Best Management Software Solution. (Source: www.datacenterinc.com.)

THE CHALLENGE

Implement storage for server consolidation and ITaaS

Hundreds of community bank clients count on DCI for core information processing services. With virtually all of their financial transactions reliant on the DCI system, bank customers require around-the-clock application services in conjunction with comprehensive information protection. Bankers also look to DCI for innovation and continued cost efficiencies to help maintain competitiveness in cautious financial markets.

Robert Ross, chief security officer and vice president of Network and Technical Services at DCI, says that delivering on customer requirements means staying ahead of the IT infrastructure curve. He states, "The technologies we use must give us the ability to deliver continued service under any condition. And data protection is fundamental. As our infrastructure grows, so does the complexity of data management. At one point we were managing data across numerous file servers with local storage. In that setting, it became increasingly time consuming and labor intensive to protect rapidly expanding volumes of mission-critical financial data and continue to satisfy the time and efficiency needs of modern banks."

To address these issues, the DCI IT team worked with ISG Technology, Inc., a leading provider of virtualization and storage solutions, to map out a strategy for making the transition to a virtual-server infrastructure built on NetApp storage. Specific project objectives were to 1) further streamline data protection and management, 2) deliver even higher levels of business continuity and disaster recovery, 3) reduce costs, and 4) provide infrastructure agility and elasticity to support innovation and new ITaaS business opportunities.

“Moving to the VMware on NetApp environment will allow us to deliver near real-time business resumption service to our customers. Whether it’s empowering remote employees with virtual desktops, delivering the processing services clients need to support mobile banking, or providing complete IT services via a private cloud, we have the technology in place to be agile, innovative, and competitive.”

John Jones
CEO, DCI

THE SOLUTION

Implement NetApp for savings, DR, and cloud-enabled services

As illustrated in Figure 1, DCI now leverages more than 100TB of NetApp storage technology across the organization’s data centers in Hutchinson, Kansas; Los Angeles, California; and Denver, Colorado, as well as for the DCI disaster recovery site in Oklahoma City, Oklahoma. NetApp provides storage resources via iSCSI to Sun™ Solaris™ servers running the DCI Oracle®-based iCore bank management system. NetApp storage technology in Hutchinson and NetApp FAS2050 systems in Los Angeles and Denver support (also via iSCSI) multiple production VMware environments running some 85 virtual machines on more than a dozen ESX servers. VMware-on-NetApp environments support an expanding array of applications that currently includes Microsoft® Exchange Server 2003, SQL Server®, and Dynamics CRM; Advanced Financial Solutions (AFS, a Metavante affiliate) check imaging; and a full complement of DCI Web-based banking applications, including the DCI Interact statement notices and Positive Pay system.

A NetApp FAS2020 solution in Los Angeles serves as the storage infrastructure for DCI’s hosted services delivered via a private cloud. The VMware-on-NetApp infrastructure

enables both server and storage resources to be efficiently partitioned and quickly allocated, increased, decreased, or deallocated to cost-effectively support a constantly changing mix of customers, applications, and services.

DCI leverages multiple NetApp technologies for business resilience and automated disaster recovery. Using NetApp SnapMirror® software, DCI continually replicates data from all technology sites to a NetApp FAS3140 disaster recovery system. The NetApp SnapManager® suite enables application-aware, automated backup and recovery of Exchange, SQL Server, Oracle, and VMware systems and data.

BUSINESS BENEFITS

Money in the bank: building savings with storage efficiency

If time is money, then DCI realized the first cost benefits of the VMware-on-NetApp infrastructure within days. At ISG’s recommendation, Ross’s IT staff participated in a VMware JumpStart engagement as a starting point for deployment. Ross says, “That preparation and the solutions-focused expertise that ISG brought to the project gave us the confidence to work to an extremely aggressive schedule. As a result, we moved very quickly through data and server migrations.”

ISG has in part differentiated itself by earning both a NetApp Virtualization Specialization and a VMware Premier Enterprise partner accreditation. That level of competency often makes the difference between a frustrating, time-consuming deployment and one that completes quickly and transparently to users. Ross adds, “We completed the VMware-on-NetApp deployment with no disruption to our customers and at less than half our anticipated cost. The knowledge transfer between ISG and DCI staff also accelerated our time to self-sufficiency.”

NetApp technologies like thin provisioning and deduplication contribute to bottom-line savings. Deduplication alone has enabled recovery of more than 50% capacity across DCI data sets. Brock Benard, DCI senior network engineer, notes that these efficiencies and the ability to pool storage and provision it on the fly has continued to keep both performance bottlenecks and stranded storage at bay. He says, “It was not uncommon to utilize only 10–20GB on a 200GB drive. Considering that we had hundreds of servers with local storage, the cost of underutilized capacity was tremendous. Administering all that distributed capacity was also labor intensive. Today we manage more than 100TB with just 1 FTE. Another key benefit is that because we can remotely

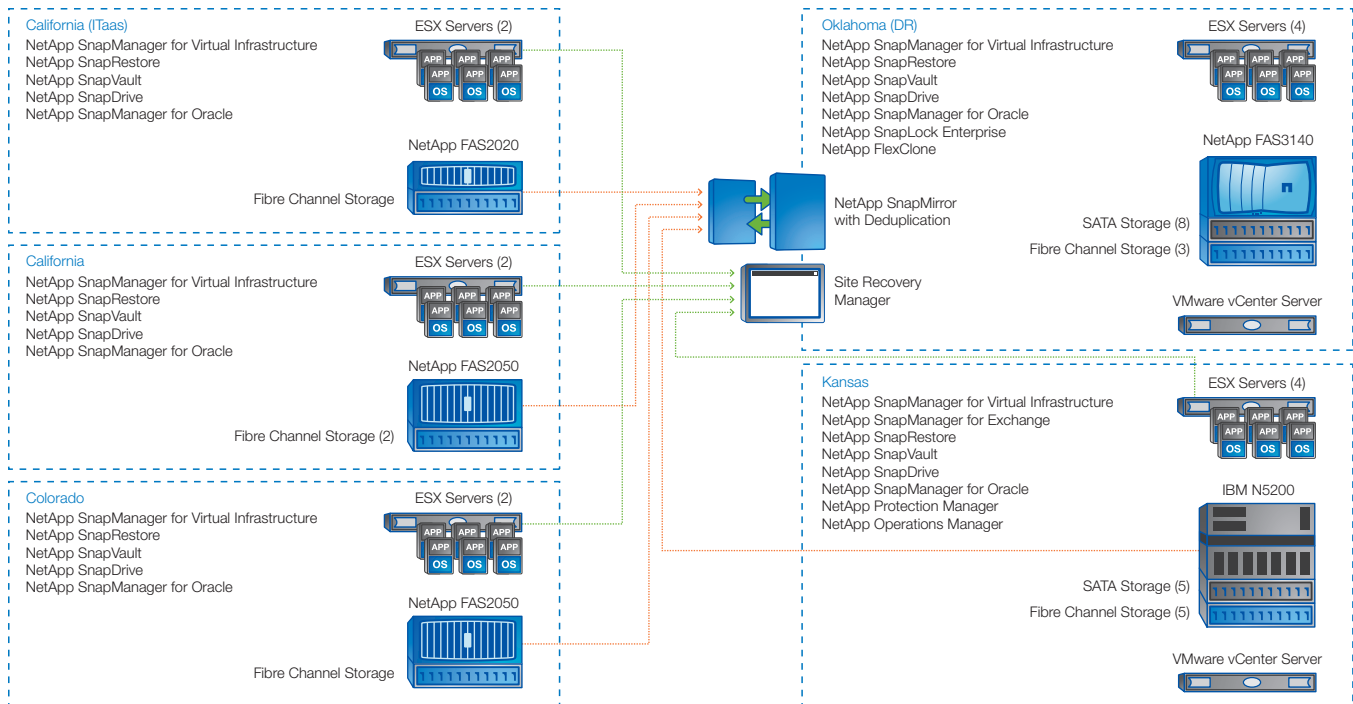


Figure 1. DCI leverages more than 100TB of NetApp storage across five data centers. NetApp storage complements the DCI VMware environment to deliver cost savings, data and business protection, plus cloud-enabled IT service delivery. Benefits include: within-minutes, automated DR; reduced power/cooling costs; the ability to manage >100TB with just one FTE; and a technology foundation for business agility, innovation, and competitive advantage.

administer our VMware-on-NetApp environments, we'll be able to run remote technology centers as lights-out operations."

Ross reports that DCI has benefited from a 70% reduction in energy costs. He notes, "Industry green standards suggest that for every server shut down you eliminate approximately \$1,500 in annual energy costs. To date, we've retired some 85 servers for more than \$125K power and cooling savings, and at the same time we've eliminated the risk of power overload at our data centers. Another benefit is reduced floor space. The VMware-on-NetApp infrastructure enables more than a 75% reduction in our data center real estate requirements.

"We've also slowed down the cost of growth. Supporting the business in the old infrastructure required as much as a 25% annual expansion of our server footprint. With the density we're achieving in the virtual environment, we're able to support more servers on a single host and are using considerably less storage capacity for more data. This year alone we've avoided some \$30,000 in new capex. Overall we're expecting a >166% three-year return on investment on this infrastructure that delivers significantly greater functionality and expandability than our legacy technologies."

Push-button DR

Moving to VMware and NetApp solutions gives DCI the ability to maintain higher levels of disaster recovery and business continuity for the company and its bank clients. Dale Martinson, manager of Systems and Security at DCI, points out that the expanded capability comes at a better value than the backup/recovery services provided by a third-party company. He states, "In the past, we were reliant on an outside company to pick up our tapes and store them at a secure facility. We paid for that service, as well as for our own staffing resources to travel to the facility for DR testing.

"Using NetApp SnapManager for Virtual Infrastructure in conjunction with VMware Site Recovery Manager [SRM], we have the ability to do push-button DR. NetApp software takes care of automating replication and recovery processes, and VMware SRM automates the failover. Should we ever experience a site disaster, in a matter of minutes we can be up and running at the DR facility. And it costs us about 50% less than before."

Sam Vernon, DCI's storage and recovery engineer, observes, "NetApp Snapshot™ technology takes just minutes, and it always works."

The forecast: increasing cloud cover

Harder to measure is the value of the business agility the new infrastructure delivers. John Jones, DCI's CEO, offers this perspective: "Moving to the VMware on NetApp environment will allow us to deliver near real-time business resumption service to our customers. Whether it's empowering remote employees with virtual desktops, delivering the processing services clients need to support mobile banking, or providing complete IT services via a private cloud, we have the technology in place to be agile, innovative, and competitive."

"We see tremendous opportunity to expand our value to a broad spectrum of bank clients," summarizes Ross. "By providing full IT services to de novo banks, for example, we can nearly eliminate their initial IT capital investments and staffing requirements. We also help reduce risk. In an age of increasing regulation, offloading compliance and other processing and data management complexities can be a huge advantage for client banks. When the Federal Reserve, or the FDIC, or OCC regulators come in to review information management, backup/recovery, or DR processes, the bank simply hands them DCI's business card. By offering a fee-for-service model, we give banks the flexibility to choose only what they need

“The solutions-focused expertise ISG brought gave us the confidence to work to an extremely aggressive schedule. We completed the VMware-on-NetApp deployment with no disruption to our customers and at less than half our anticipated cost.”

Robert Ross

VP Network and Technical Services, Chief Security Officer, DCI

from a menu of cloud-based services. And they can focus their own resources on banking, not IT.

“Putting this VMware-on-NetApp technology in place has helped us instantly add functionality, generate immediate savings, and simultaneously establish the foundation for delivering expanded cloud-based services.”

SOLUTION COMPONENTS

NetApp products

NetApp FAS3140, FAS2050, and FAS2020 systems

NetApp Snapshot and deduplication technologies

NetApp SnapManager for Oracle, SnapManager for Exchange, SnapManager for SQL Server, and SnapManager for Virtual Infrastructure software

NetApp SnapMirror and SnapRestore® technologies

NetApp FlexClone®, SnapVault®, SnapDrive®, and Operations Manager software

NetApp Protection Manager management tools

NetApp SnapLock® Enterprise software

Protocols

IP SAN (iSCSI), NAS (CIFS)

Environment

VMware

Microsoft Windows®, Exchange 2003, SQL Server, and Dynamics CRM

Sun Solaris

Oracle Database 10g™

Partner

ISG Technology, Inc.
(www.isgtech.com)



www.netapp.com

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

© Copyright 2009, 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, FlexClone, SnapDrive, SnapLock, SnapManager, SnapMirror, SnapRestore, Snapshot, and SnapVault are trademarks or registered trademarks of NetApp, Inc. in the United States and/or other countries. VMware is a registered trademark of VMware, Inc. Microsoft, Windows, and SQL Server are registered trademarks of Microsoft Corporation. Oracle is a registered trademark and Oracle10g is a trademark of Oracle Corporation. Sun and Solaris are trademarks of Sun Microsystems, Inc. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such. CSS-6224-0709