NetApp®

HealthPort Saves $750,000 in Capital Expenditures with NetApp Storage

HealthPort®

Customer Profile

Offering a comprehensive selection of affordable, quality health information solutions, HealthPort serves more than 10,000 healthcare facilities, more than 44,000 physicians, and millions of requestors nationwide. HealthPort is changing the face of healthcare by combining knowledge, technology, and service to streamline the administrative and business processes of the healthcare community. The company is headquartered in Alpharetta, Georgia, with regional offices across the United States.

The Challenge

Reaching storage capacity

HealthPort is the largest provider in the outsourced release-of-information marketplace and the premier choice for audit management technology. Each month the company fulfills more than one million medical record requests, half electronically and half as hard copy, amounting to more than two million pages printed daily. One in every three health information management departments in the United States uses at least one of HealthPort's products or services. The company's storage requirements, including efficiency and high availability, are significant.

HealthPort's storage infrastructure delivers the company's file services, document imaging, Oracle® and Microsoft® SQL Server® databases, Microsoft Exchange Server, Microsoft SharePoint Server®, and VMware® environments. The previous storage solution supporting these environments had reached capacity, impacting performance. "Performance issues for our business-critical applications were increasing," says Paul Gue, vice president of IT at HealthPort. HealthPort's customers, which include doctors, nurses, and hospital administrators, were experiencing slow response times when trying to access information such as patient records, insurance files, and document images.

As a growing technology company experiencing steady data growth, HealthPort had storage requirements that were escalating by 35–40%, and the company's disaster recovery environment was inefficient and costly to deploy and maintain. The executive team wanted to reduce debt and expenditures across the company. In addition, HealthPort intended to expand its services into new areas of business and continue to grow through

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Vice President of IT, HealthPort

acquisitions. It needed a cost-effective, flexible storage environment to support its strategic objectives.

HealthPort solicited the help of CDW, a leading provider of technology products and services and a participant in the NetApp Partner Program. CDW assisted HealthPort in securing the right solution to meet the company's growing requirements.

The Solution
Delivering leading healthcare information solutions

HealthPort and CDW deployed NetApp FAS3270HA storage clusters in the company's production environment, with FAS3040 storage systems in its development and testing environment as well as at its disaster recovery site in Atlanta, Georgia. Approximately 1.5 full-time IT employees manage the company's 1PB of data on NetApp storage, with steady expansion expected and welcomed. "We're ready for exponential growth when it happens," says Gue. "We've invested in the right storage platform to scale with us as we grow, and we have the strong relationships with NetApp and its partners to support us moving forward."

The company's primary solutions include electronic medical records, practice management, audit management,

and e-prescribing applications, as well as an electronic document management solution developed specifically for the healthcare industry. HealthPort customers can choose to purchase, implement, and manage these solutions or leverage the company's hosted application service provider model.

To help maintain business continuity and the delivery of its health information services, the HealthPort IT team uses NetApp Operations Manager for trending analysis and performance monitoring. Additional business continuity capabilities are provided by NetApp Protection Manager, which automates data-protection operations and provides policy-based management, global monitoring, and reporting that help protect its solutions and healthcare client content such as patient records. The NetApp My AutoSupport™ tool further supports business continuity through monitoring storage performance and enabling uptime.

The IT team can quickly provision new storage to meet growing data and application requirements using NetApp Provisioning Manager, gaining efficiencies through automated thin provisioning and deduplication. VMware server and desktop virtualization on NetApp, which includes 150 virtual desktops,

reduces the company's storage requirements by 35%. NetApp SnapManager® for Microsoft Exchange, Microsoft SharePoint Server, Microsoft SQL Server, and Oracle simplify management and increase productivity for backup, restore, and disaster recovery operations in these business-critical environments.

Business Benefits
Boosting overall IT efficiency

HealthPort delivers reliable, cost-effective solutions and hosted applications that save its clients millions of dollars each year and must manage its 1PB of data efficiently. However, business acquisitions and a growing clientele are placing new demands on IT to run a highly efficient storage environment with the flexibility to scale to meet changing storage requirements.

For instance, the company temporarily stores the files and images associated with the more than one million medical record requests it receives monthly, creating significant incremental storage requirements. Though HealthPort is bound by Health Insurance Portability and Accountability Act (HIPAA) regulations to retain these temporarily stored images for a maximum of 72 hours, customers increasingly demand lengthier time frames, requesting archival from 90 days up to years.
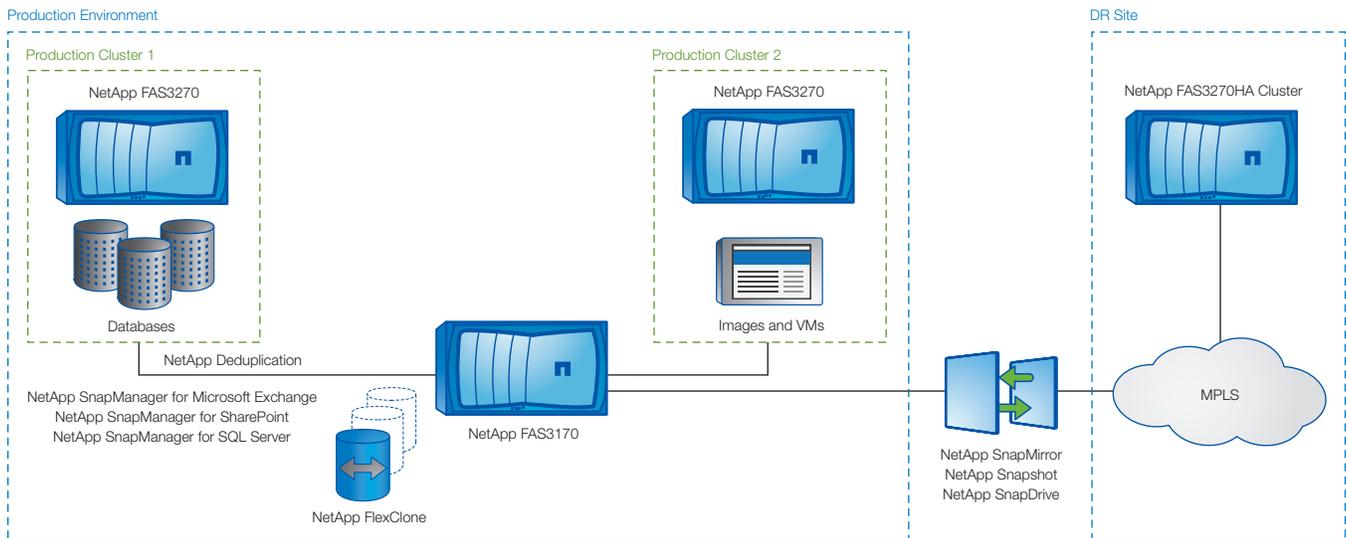
Figure 1) Healthport storage infrastructure.
HealthPort relies on NetApp storage efficiency to significantly reduce capex costs and NetApp integrated data protection to protect vital patient data.

"NetApp storage efficiency, driven by its advanced virtualization, thin provisioning, and deduplication technologies, makes it possible for us to meet our changing and growing storage demands, such as storing customer data far longer than before," says Gue. "In addition, the efficiencies in our backup and recovery strategy made possible by NetApp saved us $750,000 in capital expenditures in deploying the high-availability NetApp solution." The cost savings enable HealthPort to redirect these funds to important IT innovation, while the efficiencies help drive higher performance and availability for improved service delivery.

Through tight NetApp integration with VMware and a strong virtualization platform, HealthPort has succeeded in virtualizing 95% of its servers. The company has eliminated 125 physical servers along with related power and cooling costs, plus 125 points of failure. NetApp deduplication in the virtual machine environment delivers deduplication efficiency ratios of 75% to 85%. Altogether, NetApp efficiencies have reduced the company's storage footprint by 50%, with the ability to reduce power and cooling costs.

HealthPort currently hosts 240 virtual machines on NetApp storage that deliver the company's Microsoft SharePoint, Microsoft Exchange, and core file-and-print services. Most importantly, they also deliver the company's critical release-of-information workflow, print, and electronic delivery platform, as well as other critical back-office applications.

Greatly reduced recovery windows

The HealthPort solutions that customers depend on daily help improve business processes and enhance overall financial performance. Whether the company delivers its Release of Information, Audit Management, Onsite Record Conversion, or other services and solutions, data protection must be maintained to meet service-level agreements (SLAs) and comply with HIPAA requirements. Recovery point objectives (RPOs) and recovery time objectives (RTOs) are both contracted at 24 hours in HealthPort SLAs.

The company uses NetApp Snapshot™, SnapManager, SnapMirror®, and SnapDrive® solutions to support its intensive disaster recovery practice. The IT team replicates data 16 times in a 24-hour period. "We're paranoid when it comes to data availability, and that's a good thing," says Gue. NetApp has helped HealthPort create a strong, highly efficient disaster recovery practice. "NetApp backup and recovery capabilities have reduced our recovery windows from weeks to hours, enabling us to improve service to our clients," says Gue.

HealthPort monitors its disaster recovery practice using NetApp FlexClone® technology for periodic testing of its backup and recovery processes. The company envisions that NetApp will help it to further reduce RTOs and RPOs in the future. With plans to continue consolidation of the back-end server technology, which will provide the capability to virtualize the company's Oracle Database servers, Gue estimates RTOs and RPOs will dip below an hour.

Simplified, highly flexible storage management

The simplicity of NetApp storage management is helping HealthPort to, among other things, optimize its IT resources and reduce staffing costs. The company is able to allocate other personnel for some of the NetApp storage management functions, supplementing those performed by the dedicated full-time storage administrator.

The NetApp FAS series solution offers HealthPort a unified storage architecture and multiprotocol support for its mission-critical file services. Using the flexible NetApp storage solution, the company was able to maintain its existing network-attached storage (NAS)

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environment to support growth and change, without having to make costly storage area network and Fibre Channel investments. The company leverages file-based protocols including CIFS, NFS, and iSCSI in its NAS environment. "The NetApp NAS solutions provide us a dynamic, scalable infrastructure that allows us to fulfill the diverse needs of our customers, internal business units, and disaster recovery practice," says Gue.

Looking ahead, the company envisions achieving additional benefits from NetApp OnCommand™ 5.0 management software. "We look forward to moving to NetApp Data ONTAP® 8 soon to take advantage of the native compression," says Gue. "We're already ahead of the game with NetApp storage efficiency, and Data ONTAP 8 will further reduce our storage capacity requirements, environmental costs, and data center footprint."

SOLUTION COMPONENTS

NetApp Products
FAS3270HA storage system

Operations Manager

Protection Manager

Provisioning Manager

Single Mailbox Recovery

SnapDrive for Windows®

SnapDrive for UNIX®

SnapManager for Microsoft Exchange, Microsoft SharePoint, Microsoft SQL Server, and Oracle

SnapMirror

FlexClone

Deduplication

Thin provisioning

Protocols
NFS, CIFS, iSCSI

Third-Party Products
VMware vSphere® Servers Version 4.1

Microsoft SQL Server

Microsoft Exchange Server 2010

Microsoft SharePoint Server 2007

Oracle Database

Linux®

UNIX

Environment
Applications: Custom-developed applications supporting the Release of Information

Server platform: Sun Solaris, IBM iSeries, Windows 2008

Database: Oracle, Microsoft SQL Server and Exchange Server

Partner
CDW
www.cdw.com

NetApp

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