

Wentworth-Douglass Hospital

Company: Wentworth-Douglass Hospital

Industry: Healthcare Provider

Headquarters: Dover, N.H. (USA)

Solution:

Backup, recovery, and data deduplication

Deployment Environment:

- EMC Avamar
- EMC Disk Library
- EMC NetWorker
- EMC Data Protection Advisor
- EMC Centera
- EMC HomeBase
- VMware ESX virtual machines
- Microsoft Windows
- NextGen Electronic Health Records (EHR), Microsoft SQL Server, Microsoft Exchange, Lawson ERP

Hospital slashes data backup storage capacities, shrinks backup and restore timeframes with EMC

Company profile

Wentworth-Douglass Hospital is the largest acute care hospital in the Seacoast region of New Hampshire and Southern Maine. With 178 beds, Wentworth-Douglass specializes in trauma and emergency services, surgery, cancer care, birthing, orthopedic services, cardiovascular services, sleep disorders, rehabilitation, and other medical services.

Challenge

Wentworth-Douglass was increasingly concerned about its ability to recover from a disaster as its backup storage capacities had reached 33 terabytes, and data stores were growing by 60 percent each year. With its prior IBM Tivoli Storage Manager (TSM) backup solution, it would take a day to restore a small single-application server from 30 tapes. If that scenario was replicated across its IT infrastructure, Wentworth-Douglass estimated it would take months to restore all 120 applications. In addition, because the data center had no more room for additional storage, the hospital was only backing up a small subset of its data, further increasing risk exposure.

Solution

After evaluating solutions from HP, IBM, and EMC, the hospital decided to replace IBM TSM with an EMC® enterprise solution that would cover all its data protection needs. The solution includes EMC Avamar® and EMC Disk Library for data deduplication, backup, and recovery. Avamar is used to protect the hospital's VMware® ESX Server™ virtual machines, which run critical applications such as Microsoft Exchange, a radiology system, and five database workloads supporting the organization's new Electronic Health Records system. Meanwhile, EMC Disk Library is successfully leveraged for the physical server environment, including a majority of the hospital's NextGen EHR application.

Wentworth-Douglass uses EMC NetWorker® to centrally and automatically manage all backup and recovery procedures—including Avamar and Disk Library deduplication—across its virtual and physical infrastructure. EMC Data Protection Advisor provides realtime monitoring, analysis, and reporting of its data protection environment. Wentworth-Douglass also deployed EMC HomeBase to perform bare metal recovery, as well as EMC Centera® to store patient records for secure retention and compliance with government regulations, including HIPAA. By archiving data to the replicated Centera solution, the hospital has significantly reduced their daily backup stream and has further improved the performance and reliability of their data protection infrastructure.

Highlights

- Avamar protects 100 VMware virtual machines and Disk Library backs up 110 physical servers with EMC NetWorker managing it all across both virtual and physical environments.
- The Hospital's backup administrator now has time to develop and execute a long-term business continuity strategy instead of manually managing backup processes and reactively responding to issues.
- Quality of patient care is enhanced because patient data is more reliably available to staff even when data is corrupted or lost or systems fail.

“Now that Avamar and Disk Library have cut out our duplicate files and we recover to an infrastructure that is one-tenth of the size it used to be, I back up everything I need so I can have it all. The backups are impossibly fast and we complete restores in minutes instead of hours or days. And with NetWorker, we have a single pane of glass that allows us to execute simplified, repeatable processes for backing up both our physical and virtual server environments.”

Scott Heffner
Network Operations Manager
Wentworth-Douglass Hospital

Results

- Avamar has reduced the amount of data backed up to disk by 99 percent with data deduplication, allowing the hospital to recover to an infrastructure one-tenth the size of its primary one.
- Backup storage requirements dropped from 33 terabytes to 16 terabytes even as the hospital was able to protect 30 percent more data and 60 percent more servers.
- Several hundred thousands of dollars in storage expenditures were saved due to data deduplication.
- Backup times were reduced, in some cases, from hours to minutes.
- Restores are executed in minutes when they used to take hours or days or could not be completed at all.



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