



▶ Case Study: Beth Israel Deaconess Medical Center

BETH ISRAEL DEACONESS MEDICAL CENTER PROTECTS VITAL PATIENT AND MEDICAL DATA, REDUCES BACKUP TIMES BY 40 PERCENT WITH COMMVAULT® SOFTWARE

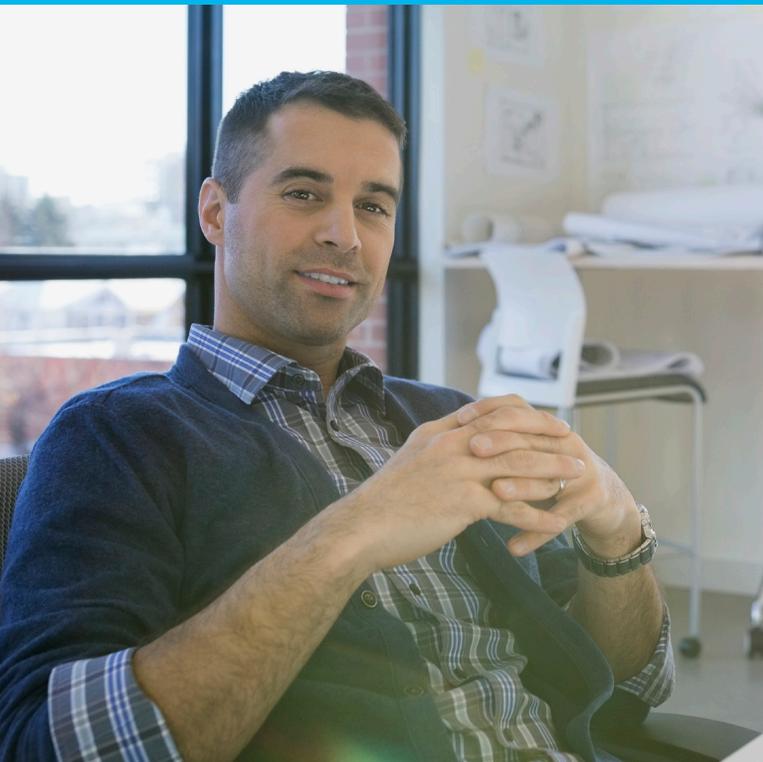


Beth Israel Deaconess
Medical Center

Industry
Healthcare Services Provider

Corporate Headquarters
Boston, MA

www.bidmc.org



CHALLENGE

- Decade-long deployment of legacy data backup solutions was fraught with performance and reliability problems
- Major gaps in reporting made it difficult to manage backups, requiring an inordinate amount of administrative overhead
- Medical data requires long retention periods for best practices and HIPAA compliance, which exacerbated continuous growth and strained data protection

SOLUTION

Commvault Software Backup & Recovery

BENEFITS

- Commvault software's singular platform enables improved management, access and ability to recover data more efficiently and with less risk
- Backup success rates of 99 percent and expedited simplified recoveries, elevating overall data protection. This includes the protection of more than 400 clinical and business applications, and a BIDMC custom clinical application called Center for Clinical Computing (CCC) that leverages InterSystems CACHÉ
- Centralized management and policy automation streamlines operations and reduces administration, significantly lowering overhead and cutting time spent on backups by 40 percent
- Flexible licensing provides unprecedented flexibility in changing licenses without penalties in order to keep pace with ever-evolving environment



Beth Israel Deaconess Medical Center (BIDMC), a Boston-based teaching hospital of Harvard Medical School, is renowned for excellence in patient care, biomedical research, teaching and community service.

The hospital has more than 6,000 diverse employees, including approximately 819 full-time staff physicians, 1,179 full-time registered nurses and 3,600 non-clinical employees. It serves nearly three-quarters of a million patients annually and conducts more than 300 clinical trials at any given time.

BIDMC is consistently ranked as a “Best Hospital” in many specialty areas by US News & World Report year after year. According to the magazine, BIDMC is among an elite group of 140 hospitals nationally – only 3 percent of the nation’s 4,825 hospitals – to rank in at least one of 16 specialties.

According to Michael Passe, IT storage architect for Beth Israel Medical Center, technology has long played a major role in ensuring the delivery of efficient and high-quality healthcare services. “We’re heavily networked with a provider portal that captures every patient exam, X-ray and treatment, while our patient portal streamlines communications between patients and their primary physicians,” he explains. “Technology is the key to helping us produce and safeguard crucial medical data, as well as all the associated applications and platforms where it resides.”

To that end, BIDMC has elevated enterprise data protection by replacing its legacy data backup solution with Commvault® Simpana® software. The team is currently running Simpana 9.0 SP6. “A big part of my job is looking ahead to the next three to five years and planning what’s on our technology horizon,” Passe adds. “Commvault’s technology has proven that it can handle anything we bring in.”

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MICHAEL PASSE,
IT Storage Architect
Beth Israel Deaconess Medical Center

▶ DATA MANAGEMENT ENVIRONMENT

A small team within the IT department is responsible for the storage and backup of all patient and clinical data. More than 2 PB of data resides on 300-plus physical servers running Microsoft Windows, Red Hat Linux, IBM AIX and HP-UX operating systems. The hospital’s 411 virtual guests are running on VMware vSphere® 4 and 5, and are hosted on 37 physical servers.

The team also protects more than 400 applications, including 200-plus clinical applications and a BIDMC custom system called Center for Clinical Computing (CCC), which leverages a CACHÉ data base. It also supports a full complement of Microsoft applications, including Exchange, SharePoint and Active Directory, as well as PeopleSoft ERP and HR applications.

In addition to spearheading daily incremental backups of 5 TBs, the team ensures a 99 percent success of weekly full backups of up to 50 TBs. With annual storage growth between 25 and 33 percent, BIDMC has deployed tiered storage solutions, encompassing an EMC CLARiiON CX4, Celerra NS-960 NAS, Atmos cloud-based storage, and VNX. “We retain all sorts of medical data securely for a long time as part of our best practices records management and HIPAA compliance,” Passe says. “For that reason, it was extremely important to have different levels of storage with appropriate cost points. Another top priority was protecting all data, regardless of platform or storage tier.”

► FINDING THE CURE FOR UNRELIABLE BACKUPS AND REPORTING

For more than a decade, BIDMC relied on its legacy data management solutions to meet ever-increasing data management requirements, yet they struggled with unreliable performance, major gaps in reporting and a breakdown in customer support. “We had a lot of problems over the years and our previous solution provider support team didn’t always have answers,” recalls Passe. “The platform didn’t scale well and we had recurring issues with memory usage. We also tried four different reporting approaches and none of them worked very well.”

In addition, the team faced challenges with protecting BIDMC’s diverse set of SQL- based clinical applications. As a result, the around-the-clock support team working at the medical center’s network operations center frequently became involved in troubleshooting backups and recoveries.

The next priority was a complete software replacement. The team evaluated different products based on a set of evaluation criteria, including diverse platform support, centralized backups, easier recoveries, streamlined management, simplified upgrade processes and robust reporting.

The team also briefly considered new deduplication hardware, but felt replacing both software and dedupe hardware was risky. After evaluating Commvault’s Simpana software, the consensus was the singular data management matched all selection criteria. “We were looking for the most modern solution on the market and once we saw how Commvault Simpana software worked, it became clear we’d found it,” says Passe.

► A PRESCRIPTION FOR MODERN DATA MANAGEMENT

With Commvault’s single platform approach to data and information management, BIDMC could take advantage of a completely unified product platform with licensable modules built from the ground up to work

5 Ways to Meet Today’s Data Management Challenges with a Single Platform

Learn how to put in place a data backup and recovery, retention, search and access platform that is designed from the beginning as a holistic, fully integrated system.

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together seamlessly. "The fact that Commvault software can search and index content contained within petabytes of data and recover it quickly is icing on the cake," said Passe.

Another plus was Commvault's flexible licensing, which gave BIDMC unprecedented flexibility in changing licenses without penalties in order to keep pace with its ever-evolving environment. "We have never encountered this level of flexibility with any other software," notes Passe. "If we change our strategy, Commvault is willing to work with us. For medium- to large-enterprise organizations, it's worth its weight in gold. It makes deployment and changes unbelievably easy."

For BIDMC, Simpana software's resilient performance is a welcome relief, especially as the medical center remains on the forefront of advances in electronic medical records, as well as health information exchange (HIE) systems and networks. "Increased reliability is a big deal to us and Simpana software takes data protection to a whole new level," adds Passe.

BIDMC also leverages Simpana software's centralized management and policy automation to streamline overall backup and recovery operations while taking advantage of push-button automation to accelerate updates and upgrades.

As a result, the team has significantly lowered administrative costs through more efficient data and information management. According to BIDMC this has enabled the team to spend 40 percent less time on backups and more time planning and strategizing for the future.

"Commvault was just a better product," said Passe. "Instead of spending 60 to 70 percent of our time on clinical, operational and business application backups, we're spending 20 percent of our time on backups, and we spend the rest of the time thinking about what's next. When backup flares up in our industry, it's critical, and we're spending a lot less time in emergency mode than we used to."

▶ BETH ISRAEL DEACONESS MEDICAL CENTER AT-A-GLANCE

PLATFORM/FILE SYSTEM

- Microsoft Windows
- Red Hat Linux
- IBM AIX
- HP-UX

APPLICATIONS

- Microsoft Exchange, SharePoint, Active Directory
- More than 200 clinical applications include BIDMC custom clinical application called Center for Clinical Computing (CCC), which was built using SQL and the InterSystems CACHE object database
- PeopleSoft ERP and HR applications
- VMware

HARDWARE

- EMC CLARiON CX4
- EMC Celerra NS-960 NAS
- EMC Atmos cloud-based storage
- VNX

▶ To learn more about Commvault software, and how it can simplify the growing complexities of healthcare data management, please visit commvault.com/healthcare.

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