



Overview

Country or Region: United States

Industry: Healthcare

Customer Profile

Located in Boston, Massachusetts, Boston Medical Center (BMC) is a 547-bed academic medical center that provides both pediatric- and adult-care services.

Business Situation

BMC faced synchronization issues between its internal and external e-mail systems. In addition, the hospital's software lacked many desired features, such as an integrated calendar and contact list.

Solution

BMC revamped its messaging infrastructure with Microsoft® Exchange 2000 Server and Microsoft Office Outlook® 2003. The solution—and a later upgrade to Microsoft Exchange Server 2003—increased user satisfaction.

Benefits

- Provided users with Web-based e-mail access
- Cut the time to respond to users in half
- Decreased the time for e-mail recovery by 25 percent
- Increased individual e-mail storage capacity by 75 percent

Large Nonprofit Hospital Improves Communications with Messaging Solution

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Darren Dworkin, Chief Technical Officer, Boston Medical Center

Boston Medical Center (BMC) is a nonprofit teaching hospital that offers a full spectrum of healthcare services and includes the largest 24-hour Level 1 trauma center in New England. Although the hospital had an e-mail solution in place, it was insufficient, and support for the mail software was soon to be discontinued. BMC wanted to upgrade to a more modern and robust messaging solution. After evaluating several options, BMC chose to migrate to Microsoft® Exchange 2000 Server and deploy Microsoft Office Outlook® 2003 throughout the organization. Shortly thereafter, BMC chose to upgrade to Microsoft Exchange Server 2003. As a result, the hospital has significantly improved employee satisfaction, provided full-featured remote access to e-mail, decreased the time required to respond to user requests, and built a communications infrastructure that can scale to accommodate future growth.

Situation

Boston Medical Center (BMC), located in the city's historic South End, is the largest hospital in Boston, Massachusetts. The hospital provides healthcare services ranging from primary medicine to advanced specialty care for trauma, obstetrics, and rehabilitation. With more than 7,000 employees and 4,800 e-mail users working in the hospital's 22 buildings, BMC needs to ensure that its staff members can communicate efficiently.

The hospital had previously used Netscape Communicator running on the Sun Solaris operating system as the basis for its messaging infrastructure. Because it was at the end of its life cycle, though, Netscape Communicator lacked much of the functionality that the hospital needed for efficient communications, including convenient e-mail access for hospital clinicians, who work in various locations throughout the hospital; an integrated calendar feature; and the ability to integrate easily with technologies that the hospital already had in place as well as those that the hospital planned to implement.

Although a third-party e-mail application gave employees limited remote access to their e-mail, BMC was dissatisfied with the software's functionality. "One of our biggest concerns was the significant synchronization issues between the desktop e-mail clients and the Web-based mail application," says Darren Dworkin, Chief Technical Officer for Boston Medical Center. Often, when an employee sent an e-mail message from an external location, it took as long as 30 minutes for the message to appear in his or her internal mailbox, which is a problem occurring with many POP3 e-mail accounts.

Poor synchronization between the two software programs affected users in other ways. For example, because the programs were not fully integrated, employees had to maintain separate contact lists for internal and

external usage; they could not access all of the names, e-mail addresses, and other contact information on the hospital network from the Web-based application. "The two software programs not only had a completely different look and functionality, but also presented great disparity in terms of the functions that were available to users," says Dworkin.

Items such as the spelling checker, e-mail filters, and rich-text formatting were not available when sending, receiving, or viewing e-mail messages through the application used for remote access. And because the external e-mail system employed different naming conventions and folder structures than those of Netscape Communicator, employees found it difficult to obtain needed information quickly. The most significant difference between the software programs, however, was the lack of an integrated calendar feature in the Web-based e-mail application. These differences impeded users' ability to access scheduling information and arrange meetings with other BMC employees.

Furthermore, because Netscape planned to discontinue Netscape Communicator and did not frequently release new drivers or software updates, BMC found the software to be incompatible with newer technologies. "With Netscape Communicator nearing the end of its life, it was very difficult—if not impossible—to find tools that allowed users to connect their personal digital assistants and other mobile devices to desktop e-mail clients," says Dworkin.

In addition, because managing the previous software required highly specialized knowledge, BMC found it difficult to procure IT personnel who could support the hospital's 4,800 e-mail users. BMC wanted a messaging solution that was both simpler to manage and with which its existing staff members were familiar.

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Darren Dworkin, Chief Technical Officer,
Boston Medical Center

Solution

The lack of desired functionality, combined with the imminent obsolescence of Netscape Communicator, led Boston Medical Center managers to look for a better alternative. In late 2004, BMC began evaluating options that would meet the hospital's needs. After comparing several enterprise-level messaging solutions, including Oracle Mail and Lotus Notes, BMC chose to migrate its communications infrastructure to Microsoft® Exchange 2000 Server and the Microsoft Office Outlook® 2003 messaging and collaboration client. And, by using Microsoft Office Outlook Web Access (OWA), BMC provided employees with the ability to check e-mail messages from any Web browser.

“Our decision to go with a Microsoft-based solution came down to the fact that it offered all the functionality that we desired and would more easily integrate with technologies we already had in place,” says Dworkin. For example, BMC had recently deployed the Active Directory® service when switching from Sun Solaris to the Microsoft Windows Server™ 2003 operating system. Management believed that Exchange 2000 Server would help the hospital use Active Directory to its maximum potential. Soon after BMC deployed the new e-mail solution, the hospital chose to upgrade to Exchange Server 2003. Like Windows Server 2003, Exchange Server 2003 is part of Microsoft Windows Server System™ integrated server software.

Working closely with Microsoft Services consultants and Transend® Corporation, a California-based e-mail migration solutions provider with more than 20 years' experience providing software solutions to the e-mail industry, two BMC employees transferred all of the hospital's messaging data from Netscape to Exchange 2000 Server. “The entire migration—from Netscape to Exchange 2000 Server and then to Exchange Server 2003—was practically seamless to our

employees,” says Dworkin. BMC ensured that all its e-mail data was converted accurately by using Transend Migrator™, the flagship product of Transend Corporation and winner of the MSD2D People's Choice Award for Best Exchange Migration Product in 2005, 2004 and 2003. Transend Migrator made it simple for BMC to maintain the folder hierarchy employed by each user, transfer e-mail (including attachments) and contact information to the new system, and migrate other server-based and locally stored data. As an indication of the speed and ease of use of Transend Migrator, BMC was able to move all e-mail archives in a short time.

“We find that automation is one of the most frequent requests we receive from organizations like BMC that need to convert a large amount of data and cannot afford any interruptions to e-mail service,” says Fred Krefetz, President of Transend Corporation. To address the need for timely data migration, Transend Migrator includes an automatic batch-mode processor. The batch system enables a large amount of data to be automatically transferred at a preset time. BMC successfully converted thousands of users from its previous e-mail system to Exchange 2000 Server without manual intervention or any interruption to users.

“The migration process went smoothly for us. We completed the core data migration in less than two weeks,” says Dworkin.

Shortly after completing the deployment, BMC decided to upgrade to Microsoft Exchange Server 2003 to take advantage of the software's enhanced functionality. “After we converted to the new e-mail system, we quickly realized that Exchange Server 2003 would be beneficial to our users,” says Dworkin. “Specifically, we were attracted to the added functionality that we could achieve through integration with Outlook Web Access,

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such as the spelling checker, the spam filter, and calendar sharing.”

Benefits

BMC has benefited greatly from moving to a Microsoft-based infrastructure for messaging and communications. Implementing Exchange Server 2003 and Outlook 2003 has helped the hospital streamline communications, improve user satisfaction, and create a solution that can accommodate a growing number of users. “Upgrading to the most recent version of Exchange Server proved to be a great move,” says Dworkin. “Our users absolutely love the new mail system.”

Improved Employee Access to E-Mail

With more than 6,000 desktop computers in 22 buildings, BMC needed to provide employees with simple and convenient access to their e-mail messages from a variety of locations. “Because we are a hospital, our employees and physicians tend to be much more nomadic than typical business users are. We need to provide clinicians with the ability to work from different desktop computers throughout the organization, depending on where they are in the hospital,” says Dworkin. “Having Outlook Web Access on all of our computers proved to be a real advantage for staff members.”

Before BMC implemented the Microsoft solution, employees had to search for a computer that had the remote e-mail software, which was inconvenient—each floor at BMC has between 20 and 30 computers. However, with Exchange Server 2003 and OWA, it does not matter which floor employees are working on or what workstation happens to be closest at any given time; employees can access their e-mail messages easily from any Web browser. What’s more, this easy, Web-based access to e-mail makes it possible for employees to check their e-mail messages from home or when traveling.

Increased Functionality and Ease of Use

In addition to improved access, the Microsoft solution offers greater functionality and is much easier to use than the previous e-mail solution. Because the look, functionality, and feature set of OWA is similar to that of the desktop e-mail client, users are able to find information quickly and work efficiently, regardless of their location.

“Before, checking and sending e-mail messages were rather inconvenient for staff members,” says Dworkin. “Without an integrated contact list, users had to remember the addresses of those they wished to contact or spend time creating a separate contact list for external access.”

Now, employees have all the same options when accessing e-mail remotely as they do at their own desktop computers. “With OWA, users can access any contact in their address books, change how their e-mail messages are displayed, view or schedule meetings, and check messages for spelling or grammar mistakes,” says Dworkin. “These abilities make communicating through e-mail much more efficient.”

Expanded Mail Storage Capacity

When BMC was using the Netscape mail system, each employee could store only up to 25 megabytes (MB) of data. To continue receiving new messages, users had to purge their e-mail frequently and delete messages, some of which contained information that they might need at a later date. “With Netscape, even when we limited the amount of data that each person could store, we were very close to reaching the upper limits of the software,” says Dworkin. “One of the reasons that we chose Exchange Server 2003 was that we knew it could scale to accommodate our needs.”

With Exchange Server 2003, BMC expanded the storage quota for each user to 100 MB,

an increase of 75 percent. "The added capacity is great for users such as physicians, who like to store e-mail messages and attachments for reference," says Dworkin.

Improved Manageability

IT managers report that the Microsoft solution is much easier to manage than the Netscape system was and requires fewer specialized IT resources for support. BMC currently dedicates a single server engineer to the administration of Exchange Server 2003; a second engineer serves as a backup administrator for the solution. "Because the day-to-day administration of Exchange Server 2003 is so simple, we are able to delegate many tasks to help-desk staff and field service technicians. As a result, we have cut the time it takes to respond to users by 50 percent," says Dworkin.

The Microsoft solution has also improved server administration in other ways. For example, the Backup and Restore feature built into Exchange Server 2003 helped the hospital decrease the time required to recover e-mail messages. "Now, we are able to recover e-mail for users 25 percent faster," says Dworkin.

BMC integrated Exchange Server 2003 with the Microsoft Operations Manager (MOM) 2000 software already in place. With MOM, also part of Windows Server System, the hospital is now better equipped to resolve any problems that may arise. "MOM is a great tool," says Dworkin. "It makes it possible for us to monitor the health and performance of our servers and helps us react quickly to issues.

"We want to ensure that our users will have access to their e-mail 24 hours a day," Dworkin adds. "The Microsoft solution not only helps us achieve that goal, but also gives users tools that help them to work more efficiently. That's the real benefit for us."

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: www.microsoft.com

For more information about Transend Corporation products and services, call (650) 324-5370 or visit the Web site at: www.transend.com

For more information about Boston Medical Center, call (800) 682-2862 or visit the Web site at: www.bmc.org

Microsoft Windows Server System

Microsoft Windows Server System integrated server infrastructure software is designed to support end-to-end solutions built on the Windows Server operating system. Windows Server System creates an infrastructure based on integrated innovation, Microsoft's holistic approach to building products and solutions that are intrinsically designed to work together and interact seamlessly with other data and applications across your IT environment. This helps you reduce the costs of ongoing operations, deliver a more secure and reliable IT infrastructure, and drive valuable new capabilities for the future growth of your business.

For more information about Windows Server System, go to: www.microsoft.com/windowsserversystem

Software and Services

- Microsoft Windows Server System
 - Microsoft Windows Server 2003
 - Microsoft Exchange 2000 Server
 - Microsoft Exchange Server 2003
 - Microsoft Operations Manager 2000
- Microsoft Office System
 - Microsoft Office Outlook 2003
- Services
 - Microsoft Services

- Technologies
 - Active Directory
 - Microsoft Office Outlook Web Access

Hardware

- HP server computers

Partners

- Transend Corporation

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