

MedStar Health integrates applications and improves knowledge sharing with an IBM portal solution

Overview

■ The Challenge

Integrate disparate IT systems at seven hospitals owned by MedStar Health; improve knowledge sharing among employees through a unified corporate portal

■ Why IBM?

IBM offers a cost-effective and easy-to-manage portal platform that integrates access to applications, information, people and expertise on a single screen

■ The Solution

IBM® WebSphere® Portal Extend for Multiplatforms software running on an IBM® server® pSeries® server

■ The Benefit

- A simpler, unified work environment with access to applications via a single user interface
- An integrated work environment without concern for the complexities of back-end integration
- Improved knowledge sharing and employee productivity through the use of online team spaces and other collaboration tools



In the world of large healthcare organizations, effectiveness can depend as much on the coordination and integration of disparate information systems as on the quality of clinicians and staff—a call to action that MedStar Health has taken to heart. A US\$2.7 billion nonprofit healthcare organization, MedStar Health operates a network of 7 hospitals and 19 other healthcare organizations in the Baltimore-Washington metropolitan area. Because it provides excellent care, MedStar Health has grown to become not only the largest healthcare provider in the mid-Atlantic region but one of the largest providers in the nation. With 22,000 employees and 4,600 affiliated physicians, MedStar Health offers integrated health coverage for 139,000 inpatient admissions and more than 900,000 outpatient visits every year.

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*—Paul Shapin,
Assistant Vice President for
Decision Support Systems,
MedStar Health*

Key Components

Software

- IBM WebSphere Portal Extend
- IBM Lotus Notes

Servers

- IBM @server pSeries
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While MedStar Health has been successful at growing its business through mergers and acquisitions, the company's growth has brought with it a host of disparate IT systems. Instead of viewing IT as an obstacle, however, MedStar Health views technical development as an opportunity to integrate functionality and improve patient care. "MedStar Health was created through a series of mergers," explains Paul Shapin, assistant vice president for decision support systems. "We're a relatively young company working toward becoming an integrated healthcare organization. We believe that IT can help us move in that direction. Philosophically, we look at IT as a way to help us move from seven hospitals to a single integrated provider."

MedStar Health searches for knowledge sharing and system integration

In order to realize the goal of becoming a unified healthcare provider instead of a conglomerate of independent organizations, MedStar Health decided to integrate knowledge, information and applications within a single IT infrastructure. Because MedStar Health had so many disparate systems, the provider realized that it needed a way to ease access to shared information and began to investigate the use of a corporate portal as a way to keep the staff in sync. The goal was to make employees more productive by providing easier access to the various systems and information needed to do their jobs.

Ultimately, the benefit of a portal hinged on its ability to enable business growth while supporting the needs of employees. "We lacked easy access to clinical guidelines, policies and procedures as well as benefits information. All of that material was paper-based, and all of the processes surrounding those documents were manual," notes Shapin. "At the same time, in the healthcare industry there tends to be a heavy reliance on commercial software packages and not a lot of internal development. And when you acquire different systems from the outside, you need a framework to tie them together. Otherwise, it can be confusing for employees to access information. We viewed a corporate portal as a way to pull together this information and make it easier for our staff to access the systems they need."

MedStar Health selects IBM WebSphere Portal Extend to integrate functionality

In order to present employees with integrated access to information, MedStar Health chose IBM WebSphere Portal Extend for Multiplatforms software to form the foundation of its corporate StarPort portal. "At MedStar Health, many of our applications are provided through an application service provider (ASP) model. Prior to our adoption of IBM WebSphere Portal Extend, we had to put multiple shortcuts on employees' desktops so they could link out to the applications. Now we just present everything through the StarPort portal," explains Shapin. "When people view information through StarPort, they can't tell if they are accessing an internal system or an external system because everything is delivered on the same screen. With StarPort, employees can go to one place to access all of the information they need."

StarPort is already integrating an impressive array of functionality. The portal makes it easy for all employees to access the MedStar Health e-learning application, MeL, which allows them to complete mandatory annual training requirements online. Plus, there are links to public Web sites, where employees can, for instance, view medical best practices. Thanks to StarPort, employees don't have to search around for information because the portal pulls together internal applications and public information sources in a single place.

Currently, more than half of MedStar Health's 16,000 employees and all 1,600 managers have access to StarPort. Although all of the StarPort functionality is currently delivered through JavaScript™ and external links, future plans call for delivering various subsystems through integrated portlets as that functionality becomes available on an application-by-application basis.

IBM WebSphere software-powered expert locator enhances patient care

Among the most impressive pieces of new functionality being built into StarPort is an expert locator system that promotes information sharing between hospitals. When people register for StarPort, they can fill out their areas of expertise. Then when another employee is looking for a human resources specialist or an expert negotiator, for example, they search the database by expertise to find the desired experts. Furthermore, the employee can fire off an e-mail or instant message within StarPort to ask the expert a question. This type of functionality helps a large company like MedStar Health become an integrated healthcare provider.



“By eliminating the cost of publishing and maintaining hard-copy documents, we’ve realized considerable savings.”

*—Paul Shapin,
Assistant Vice President for
Decision Support Systems,
MedStar Health*



WebSphere Portal team spaces improve collaboration

As a means to allow collaboration among users in various locations, employees are encouraged to build team spaces within StarPort. “We often get requests to build a Web site around a particular issue, but we only have two people in the IT department dedicated to the portal, and we don’t have the time to do much single-department development,” Shapin explains. “Instead of building one-off Web sites, we send out a trainer and show people how to create team spaces within the portal. A good example is the Clinical Outcome Management and Process Analysis System (COMPAS) team space through which practitioners can share documentation and case studies, host user groups and cite references. We also encourage our business groups to take advantage of the team spaces. For example, our legislative affairs group has a team space for sharing information about the latest local developments in legislation.”

WebSphere Portal automates workflow

In addition to the existing functionality, MedStar Health plans to use the portal to automate workflows around routine procedures. The company is working on a couple of systems that take advantage of the workflow automation capabilities of IBM Lotus Notes® messaging software, which is an integral part of the portal. For instance, MedStar Health is developing a catering system, which lets staff submit requests online for catering services, get managerial approval and have the request routed to the catering department. And they are building a best-practices system that will allow employees to submit a best practice, have it reviewed and then publish it online.

Role-based distinctions help enforce appropriate access

To present the right information to the appropriate employees, StarPort relies on role-based privileges granted by WebSphere Portal based on access control policies. Because StarPort is behind a firewall, people do not need to log in to reach it, but when they do log in, they are granted additional privileges based on their role. So, for instance, when managers log in, they can access the performance appraisal system for their employees, which is not be accessible to someone who is not a manager.

WebSphere Portal simplifies IT administration

Aside from offering employees impressive functionality, WebSphere Portal helps simplify IT administration. The IT department has been able to leverage the instant messaging functionality in WebSphere Portal to build an online help desk for employee technical issues. "Instant messaging is a big feature for our help desk," Shapin claims. "We've augmented the standard instant messaging application with third-party software that creates a virtual queue. If employees have technical problems, they can initiate an instant message and are put into a queue. The next available help desk staff member can then pick up the request and initiate a resolution."

WebSphere Portal also helps simplify IT administration by making it easier to deploy computers across the company. "We make StarPort the home page for every browser," Shapin explains. "By putting StarPort on every computer, we don't have to create and manage shortcuts for all of the ASPs. As a result, the deployment of new machines and the management of applications are much easier."

WebSphere Portal helps reduce paper-related expenses and improve productivity

Although simplified IT administration is helpful, the reduced paperwork and resulting cost savings is a more impressive organization-wide benefit of WebSphere Portal. Instead of printing manuals, policies and procedures are now published online, allowing MedStar Health to reduce the cost of printing and maintaining paper-based documentation.

While money saved is undoubtedly beneficial, improved collaboration is the ultimate benefit of StarPort. "In addition to reducing paper-related expenses, the big benefit of StarPort is seen with improved knowledge sharing," Shapin notes. "We have seven hospitals that do certain things very well. We view StarPort as a way to share best practices among facilities. By sharing best practices, we can learn from each other and implement the methods and procedures that help make our employees more productive and effective."

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Somers, NY 10589
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