



## Healthcare System Uses Portal to Mitigate IT Risk, Expand HIS Feature Set by 50 Percent

### Overview

**Country or Region:** United States

**Industry:** Public sector/Healthcare

### Customer Profile

Upper Chesapeake Health System (UCHS) is the largest health system and second largest employer in Harford County, Maryland, with 2,700 staff employees and 550 staff physicians.

### Business Situation

UCHS was about to embark on one of its largest and most challenging IT projects—the upgrade of its mission-critical hospital information system. It wanted to mitigate the risk associated with that project.

### Solution

UCHS adopted a project portal based on Microsoft SharePoint Server 2010, which provided easy access to all project documentation and resources and dashboards with at-a-glance project status.

### Benefits

- Spurs 50 percent increase in breadth of system functionality
- Increases flexibility and accessibility for team members
- Reduces consulting expense by 80 percent

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*Rick Casteel, Vice President of Information Technology, UCHS*

Upgrading a software system shouldn’t put an enterprise at risk. But, too often, it does. The Upper Chesapeake Health System (UCHS) wanted to reduce the risk associated with upgrading its mission-critical hospital information system (HIS)—a major undertaking for UCHS. To help ensure success, UCHS turned to Microsoft SharePoint Server 2010 and RJB Technical Consulting, a member of the Microsoft Partner Network, to build a portal with which to manage the projects supporting the upgrade. The results: The HIS deployment will be tracked and managed more effectively than otherwise possible, with UCHS expanding HIS functionality by 50 percent over initial plans. Executives are making better and faster decisions about the upgrade. Team members can support the project online or offline, within UCHS facilities or elsewhere. As a bonus, project management costs are as much as 80 percent lower.



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## Situation

Being the preferred health care provider to a growing community requires the coordination of numerous disciplines, dozens of departments, thousands of team members, and the constant reminder that any misstep can mean the difference between life and death—but the Upper Chesapeake Health System (UCHS) manages the process successfully every day.

Switching to a new technology platform for its hospital information system (HIS) without affecting all these moving parts was one of the largest challenges in its history.

Not that UCHS isn't up for challenges. Located midway between Philadelphia and Baltimore, in Harford County, Maryland, the two-hospital system operates in an environment that's highly competitive even by the standards of its industry. “If we don't offer superior service as well as superior care, our potential patients can look to world-class institutions just an hour away,” says Rick Casteel, Vice President of Information Technology at UCHS. “It's a challenge we face every day.”

Another challenge arose when UCHS decided to upgrade its Meditech HIS software. The health system had used it for more than 20 years and, in 2009, it was time for a major upgrade. The new version would help UCHS meet new federal regulations—and the health system's Medicaid and Medicare reimbursements were dependent on that compliance. The upgraded software would also help UCHS implement an online system for doctors' orders for prescriptions, tests, and therapies.

While the Meditech project was technically an upgrade, that's not how Casteel looked

at it. “Moving to the newest version of our HIS software was going to be a bigger job than deploying the software in the first place,” he says. “We'd deployed Meditech before we deployed PCs, before email became the primary way to communicate, before the web browser became the way to retrieve information. Now, we faced what amounted to fork-lifting out our entire HIS and transplanting in an entirely new one. The only thing comparable was when we moved a whole hospital from one location to another, and had to build a new IT infrastructure at the new site.”

With a project so large, it was especially important for UCHS to find a way to manage project timelines and resources, and mitigate risk as much as possible. Beyond the unusually large scale of the project, Meditech was the health system's core mission-critical system. UCHS could not afford a mistake that kept the HIS from running 24 hours a day, seven days a week.

The key to a successful deployment of the HIS upgrade would be effective communication and collaboration among all the teams engaged on the deployment project. They needed immediate access to project documentation, project schedules, and plans, and the ability to update them. They needed a way to coordinate their activities. Managers and executives needed to understand the overall status of the project at a glance, as well as the detailed status information on any of the project's components. And, they needed access to all of this whether they were working within the health system's network or someplace else.

## Solution

Previously, UCHS would have handled this type of project management with emails and file shares. Casteel was skeptical.

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“I’m not sure how we would have done it with email,” he says. “It’s inconceivable to me that we would have stayed on task and met key milestones if we tried to maintain communications among a large group with just email. The quality of the outcome would have been very much in doubt.”

In November 2009, to minimize that doubt, UCHS contacted RJB Technical Consulting Inc. (RJB), a Microsoft Network Partner with multiple Gold competencies. RJB recommended that UCHS take advantage of a technology platform already within its infrastructure: Microsoft SharePoint Server collaboration and document management software. The health system had been using Microsoft Office SharePoint Server 2007 to host and provide access to the large and rapidly expanding set of documentation that UCHS needed to maintain. But Casteel and his colleagues came to realize that the software offered much more.

“We looked at SharePoint Server and rapidly realized that a portal based on it met all of our requirements for project management,” he says. “SharePoint Server was the way to go.”

That left the question of which version of SharePoint Server to use. UCHS could use the Office SharePoint Server 2007 software that it already deployed for document management, or it could consider Microsoft SharePoint Server 2010, which was in early beta testing at the time. To help make that decision, it consulted with RJB Technical Consulting, the solution provider that had helped UCHS adopt and implement its previous Office SharePoint Server environments.

RJB pointed to key advantages for UCHS in SharePoint Server 2010. The health system could use the software’s interoperability with Microsoft Project 2010 to facilitate the

synchronization of project plans. It could use Office Web Apps to access and edit documentation even from computers that lacked Microsoft Office software. It could use Microsoft SharePoint Workspace 2010 so members of the deployment project could work with their colleagues on team sites even when they were offline. It could adopt advanced workflow software from Nintex to automate processes around the UCHS Electronic ID provisioning system.

Because of these enhancements, UCHS opted for SharePoint Server 2010. RJB upgraded the existing environment with a beta version of the software and configured it within a couple of weeks.

“We knew the upgrade process would not be a massive undertaking,” says Russ Basiura, Chief Executive Officer at RJB. “We had been working closely with Microsoft on the beta since August 2009 and our experience was that the upgrade process would only take about one week to complete. We were confident that the project management sites and dashboard would only take another three to four weeks.”

Working with UCHS, RJB had the SharePoint sites up and running within two months. UCHS was so pleased with the pilot that it put the beta version of SharePoint Server into production while it awaited the final release. When that became available in April 2010, RJB helped the health system to do the upgrade.

A UCHS team of 120 professionals, organized into 24 groups (one for each functional area of the Meditech software), is now using the SharePoint Server portal to manage the deployment (see Figure 1). The portal, as configured and developed by RJB, features:



Figure 1: The UCHS portal for the HIS deployment provides a project calendar, frequently used forms, executive updates, and one-click access to team sites.

- Three dashboards with key performance indicators, one each for milestones, development of interfaces to other systems, and conversion of Meditech data from the old system (see Figure 2).
- Excel Services, a technology in SharePoint Server, which facilitates the toggling among red, yellow, and green indicator lights to depict the status of any key project component.
- A master calendar, which tracks team meetings, training, and other activities.
- SharePoint 2010 Enterprise Search, which team members can use to quickly find documentation, colleagues, and other resources.
- An “executive updates” bulletin board, which hosts announcements that affect all members of the team.

The portal also includes links to all project team sites, and each team site features team calendars, documents, and project plans. The project plans, in turn, include tabs and dates for the completion of each milestone within that team’s portfolio.

Casteel expects the Meditech HIS deployment—the equivalent to building an entirely new IT infrastructure—to take one year to complete.

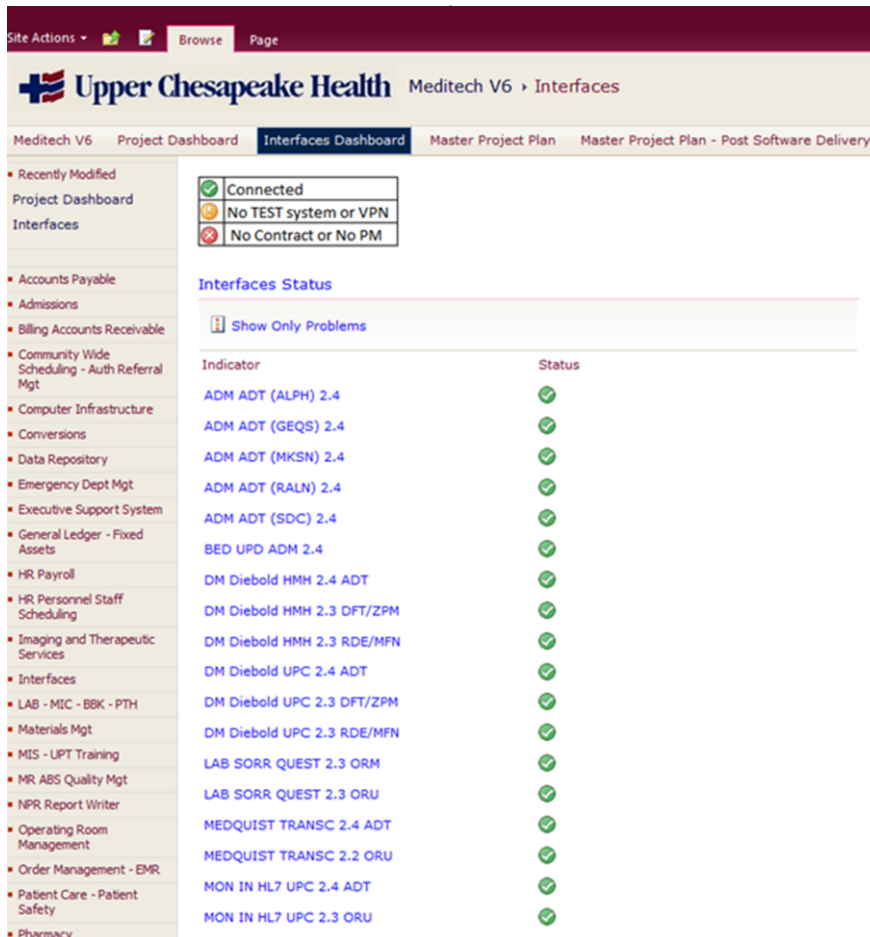


Figure 2: Project dashboards—here, regarding interface development—give managers an immediate understanding of project status.

### Benefits

Through its use of SharePoint Server 2010, UCHS has created the better and faster project management and collaboration platform that it sought in order to reduce the risk associated with its massive HIS deployment. It has reinvested productivity savings from the portal-based project management process into expanding the range of HIS features that it can make available to users. As a bonus, the solution is reducing HIS deployment costs, too.

### Spurs 50 Percent Increase in Breadth of System Functionality

“If we hadn’t adopted SharePoint Server, the risk inherent in this project would have increased dramatically,” says Casteel. “There would have been missed communications, missed milestones, more meetings, slower progress. As a result, our deployment of the HIS would not have been as effective as we now expect it to be.”

Casteel sees his deployment team using SharePoint Server to enhance the quality, and help ensure the success, of the project. At the highest level, the executive steering committee members now can view overall and detailed project status at any time—using the dashboard built by RJB—so they have more and better information than they’d have had otherwise. And, they can obtain the information they need without taking time from project leads, who would otherwise have to deliver daily project updates in person. Casteel estimates that each project lead saves at least an hour per week in this way—50 percent of the total time spent in meetings.

The solution allows the executive committee to manage by exception—that is, to spend its time only on the aspects of the project that require it—rather than wasting time reviewing the details of successful project components. It can also respond to requests or reports from project leads with faster and more effective feedback.

Meanwhile, project leads and their team members similarly benefit from the dashboards and easy access to underlying data. They also benefit from the interoperability between SharePoint Server 2010 and Microsoft Office 2010 programs. For example, team members collaborating on a project plan or other documentation can check out that documentation for

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editing from the same Office program they use to access and view it, eliminating the need to access a separate SharePoint library for the purpose.

As a result of these and other communication and collaboration enhancements, UCHS is experiencing major productivity gains. The result isn’t faster time to deploy the HIS software—the health system would have planned to go live with Meditech in a year, even without the use of SharePoint Server. Instead, Casteel says that the productivity gained with SharePoint Server is showing up in a far more feature-rich deployment within that time.

“If not for our use of SharePoint Server, we could never have planned for a deployment this broad,” he says. “Once our people get on the new version of Meditech, they’ll be far more productive, day after day, than they would have been with a more-limited implementation. Given the greater productivity with which we’re working, we’re able to implement 50 percent more HIS functionality for the health system.”

#### **Increases Flexibility and Accessibility for Team Members**

Part of the health system’s productivity gains results from the ability of the highly mobile team members to work from wherever they happen to be—whether inside or outside of the health system network—minimizing delays.

Many of the deployment team members are doctors, nurses, lab technicians, and other healthcare providers, who move constantly through the health system’s facilities. They may often find themselves in locations where a nearby computer or kiosk doesn’t have the Office programs they need to work with project documentation.

By using Office Web Apps, they can remain fully productive even at these locations.

Others may find themselves working remotely from their portable computers, with little or no Internet accessibility. They can keep working by using SharePoint Workspace 2010, with which they can take SharePoint team sites with them on their portable computers, work with them offline, and then synchronize their updates with the team sites when they regain Internet or network access.

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#### **Reduces Consulting Expense by 80 Percent**

Reducing the cost of the Meditech HIS deployment wasn’t the primary goal behind UCHS’s adoption of SharePoint Server—but since it operates in a highly competitive environment with rapidly escalating costs, UCHS is glad to see that benefit as well.

One reason costs are lower is because there’s less need for outside consulting services. Had the health system chosen a different technology solution for managing the Meditech HIS deployment, it would have required significant consulting services throughout the project, according to Casteel. By adopting SharePoint Server, with which it was already familiar, the health system needed less support, Casteel estimates that UCHS saved approximately 80 percent of the potential consulting expense by choosing SharePoint Server, which already existed in its solution catalog.

Additional savings come from other factors. The SharePoint site was deployed without

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For more information about RJB Technical Consulting services, call (610) 834-3900 or visit the website at:

[www.sharepointspecialists.com](http://www.sharepointspecialists.com)

For more information about Upper Chesapeake Health System services, call (443) 643-1000 or visit the website at:

[www.uchs.org](http://www.uchs.org)

the need for additional software licensing or hardware, except for the cost of upgrading the existing SharePoint Server software. Automated workflows and electronic forms replace many of the paper-based processes that UCHS formerly used—and reduce the cost of paper, postage, and labor. The remote and mobile capabilities reduce the cost of travel between facilities. Faster and more-informed decision-making leads to better decisions that further reduce costs.

“We needed to do everything possible to ensure that this massive deployment project went as well as it could,” says Casteel. “The fact that the best choice was also the most cost-effective choice—that was a bonus.”

## Microsoft Solutions for the Healthcare Industry

Healthcare and life sciences organizations are under tremendous pressure to meet regulatory requirements, improve patient care, and reduce the time it takes to develop drugs and take them to market. To meet this challenge, Microsoft and its partners have developed cost-effective solutions that enable healthcare organizations to streamline and automate daily processes that improve productivity and deliver information whenever and wherever it is needed. The result is enhanced productivity, safety, and quality.

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### Software and Services

- Microsoft Server Product Portfolio
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- Technologies
  - Excel Services

### Partner

- RJB Technical Consulting