

BlackBerry Becomes Part of Healthcare Professionals' Toolkit

Striking a balance between patient needs and efficiency often falls to the frontline – doctors, nurses and IT support. Baylor Healthcare System felt they could increase their operational efficiency and reduce costs by helping their staff better manage their email and calendars while they worked. At the same time, Baylor's IT team needed a way to reliably manage critical hospital systems, such as servers and applications, from remote locations.

Baylor's first foray into BlackBerry® started in 1999, with the roll out of 50 handhelds to executives and highly mobile professionals. Today, they have more than 600 BlackBerry Wireless Handhelds™ deployed on the BlackBerry Enterprise Server™ with the Mobile Data Service (MDS) feature. In 2002, they added IC²™, an application produced by Ecutel for the BlackBerry handheld to enable remote systems management.

The impact has been felt across the organization, but nowhere more noticeably than with the doctors and IT team. The benefits to them include:

Physicians:

- Savings of up to four hours per week
- Savings of \$51,000 per person, per month in productive time
- Projected financial savings of nearly \$3 million per year

IT Team:

- Increased reliability of critical business systems through remote wireless management
- Better internal service to customers of IT team
- Reduced need for 24/7 IT staffing

Baylor is a busy system of hospitals, spread throughout Dallas, which handles more than 93,000 admissions, 245,000 emergency department visits and 495,000 outpatients per year. The 3,300 doctors and thousands of nurses, who deliver these services were tethered to their desks for email and calendar access. The system extended their workday and diminished productivity.

Today, Baylor has more than 15,000 email users in a Microsoft® Exchange environment and is managing the flow of this email traffic with BlackBerry. Deployed in 1999, the 50 handheld pilot project has grown to a user base of almost 600 people, including administrators, managers, doctors, nurses and the IT team.

Industry

Healthcare

Situation

Baylor is a typical healthcare organization, with stretched resources, looking for a way to increase productivity and reduce costs.

Organization Profile

Baylor Health Care System is one of the nation's largest not-for-profit care facilities. Located in Dallas, it employs more than 15,000 people in primary care centers and practices, rehabilitation clinics, senior health centers and affiliated ambulatory surgery centers.

Solution

The organization has deployed 600 BlackBerry handhelds on the BlackBerry Enterprise Server with the MDS feature. Doctors use BlackBerry for receiving their email and updating their calendars on-the-run. The IT team has deployed IC², an application by Ecutel to enable remote management of critical business systems.

Results

Productivity increased by four hours per week, as doctors and key people began relying on BlackBerry for essential communications. Annual savings are projected to reach \$3 million per year. In addition, the IT team's remote systems management on BlackBerry have resulted in improved service, increased productivity and better use of the organization's IT resources.

BlackBerry Becomes Link To Productivity and Healthcare Performance

In a typical day, a doctor at Baylor will receive about 200 emails. Before BlackBerry, these emails were on a desktop PC, at their office, which may or may not be located in the hospital where they were working. Emails come from a variety of sources, but are often from internal administrators, pharmaceutical companies, other doctors, nurses and other suppliers.

"BlackBerry gives the doctors more freedom," says Brad Rayburn, senior architect. "If they need a piece of information, they don't have to be tied to their desk waiting for it. It gives the doctors more mobility, so they can see other patients."

Their wireless flexibility has helped them become more productive, saving three to four hours a week, by turning downtime into productive time. When that productivity is translated into savings per email, the value mounts up. Conservative estimates have Baylor saving \$510 per person, per month or \$2.8 million per 500 users, per year.

PROCESS	BLACKBERRY SOLUTION	SAVINGS WITH BLACKBERRY
220 messages received per person, per week on BlackBerry handheld vs. a desktop	Message read time: 1 min. x 220 messages	SAVED 3 hours reading email per person, per week
15 messages sent from a BlackBerry handheld per person, per week	Average message compose time: 3 min. x 15 messages	SAVED 45 minutes responding to email per person, per week
Total time spent managing email	3 hrs + 45 min. per person, per week	SAVED up to 4 hours per person, per week
Total \$ savings per person	4 hrs x \$30/hr = \$127.50 per week	SAVED \$510 per person, per month
Total annual savings	100 users x \$510 per person, per month	SAVED \$51,000 per person, per month
Projected annual savings	500 users x \$235,000 per month	SAVINGS of \$2.82 million per year

"The doctors have really enjoyed BlackBerry for email and are asking for more functionality," says Rayburn. "I can see the Java™ versions of the handhelds helping us create applications on our web portal."

Baylor has also discovered the value of over-the-air provisioning with the BlackBerry Enterprise Server v4.0. In the past, they would send an IT person to one of their six hospitals to set up or provision the user's handheld. Now, the handheld can receive most of the software upgrades or set up commands wirelessly.

"This has been one of the greatest time savers for us," says Rayburn. "We can virtually configure the handheld wirelessly, which means we don't have to go to someone's desk or drive to another location and lose all the time involved with that."

Remote Management with BlackBerry Increases Productivity

Baylor has also been using BlackBerry for the past 18 months to manage its systems when the IT team is away from the office. IC², by Ecutel, is a remote enterprise management solution that enables IT professionals to securely manage their network appliances, servers and users from the BlackBerry handheld.

IC² server software is installed on Baylor's systems behind the firewall. The server has access to the enterprise infrastructure and performs all the system and network administration transactions. The Baylor IT team uses the BlackBerry handheld to securely connect to the IC² server. Requested administrative transactions are completed and the results sent to the administrator.

This application functions on the BlackBerry handheld because of the MDS feature of the BlackBerry Enterprise Server. MDS allows applications to securely communicate between the handheld and enterprise systems.

"I really enjoy having this capability on the BlackBerry handheld," says Rayburn. "It allows me to run IC² so that I can remotely manage printers, servers or work stations. I can stop and start services from the movie theatre, if I need to."

Rayburn, or one of his 35 team members, will get an alert on the BlackBerry handheld if something is wrong with the system. They use the application to remotely manage servers, connect to work station services, reset passwords and management support for Telnet/SSH capable servers/appliances such as their Linux servers.

"It's saved my bacon a couple of times," he says. "Once while driving home, two services critical to patient care stopped. While in traffic, I was able to use IC² to connect into that server and restart the services. It's truly increased our effectiveness after hours."

The Benefits

Rayburn's team has not done any formal return on investment calculations. But he estimates IC² has saved them hours per day in productivity and has increased their staffing effectiveness, because an IT person does not have to be onsite 24/7 to manage the systems.

When it comes to how BlackBerry has enhanced the performance of the key people at Baylor, the benefits are numerous:

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The Future

Baylor's deployment of BlackBerry continues to grow, with new groups added all the time and the user population expanding exponentially. Based on their success with email, they have plans to make use of the MDS feature of the BlackBerry Enterprise Server and build greater functionality in the future.

"Intranet links to our database could help our doctors access patient charts, drug information or test results," he says. "Using the MDS feature, we see more and more ways to keep them mobile and away from their desks and increase their productivity."

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*Brad Rayburn,
Senior Architect*