

BlackBerry and WolfeTech Combine to Reduce Healthcare Administration Costs and Improve Patient Care

PacifiCare Health Systems, a California-based national healthcare organization, had an efficiency challenge in serving its three million health plan members. Their Review Nurses, who visit hospitalized patient members to monitor and report on their care, were encumbered by a time-consuming, manual reporting system that involved filling out and faxing lengthy patient forms by hand.

PacifiCare's search for a more efficient, cost-effective solution came to an end with the WolfeTech Sigma™ platform for BlackBerry®. By deploying the Sigma solution, the complex form became a simple wireless application. PacifiCare Review Nurses gained real-time, data entry of patient information.

The solution was a winner for PacifiCare:

- Review Nurses reduced time spent on filling out and faxing forms, allowing more time with patients
- PacifiCare saved more than \$25,000 per Review Nurse team per year on reporting responsibilities
- The new solution eliminated the need for dedicated administrators for every Review Nurse
- Errors, caused by handwriting, were virtually eliminated, creating better customer care

PacifiCare relies on their Review Nurses to visit 10 to 25 patients a day, at various hospitals, to ensure that hospitalized members get the best care possible and plan costs are kept to a minimum. One of the Review Nurse objectives is to prevent delays in diagnosis that result in unnecessary hospitalizations, costing an average of \$5,000 per day. Until 2003, and a WolfeTech and BlackBerry pilot project, the system depended on detailed reports, manually recorded and inputted. Review Nurses handwrote a two-to four-page report, faxed all reports to their PacifiCare Medical Information Coordinator (MIC) and reports were then transcribed for entry into the company's back-end database.

No one was happy with the system. Review Nurses spent up to 85 minutes per day filling out forms and nearly three hours per day faxing them in. These valued team members were frustrated at spending more than half their day on administration (up to 4.46 hours) instead of patient care. From a company perspective, PacifiCare was spending over \$62,000 per year, per Review Nurse/MIC team to administer their reporting system.

Industry

Healthcare

Situation

PacifiCare's Review Nurses traveling to various hospitals were spending more time manually updating patient records than offering one-on-one patient care, costing the company an enormous amount in administration costs.

Company Profile

PacifiCare Health Systems is one of the largest US health organizations. With more than three million health plan members and \$11 billion in revenue, it offers a variety of consumer-driven health care products for employer groups and Medicare beneficiaries.

Solution

PacifiCare deployed 26 BlackBerry Wireless Handhelds™ enabled with the WolfeTech Sigma platform that enabled the completion and distribution of patient forms completely wirelessly.

Results

WolfeTech Sigma and BlackBerry reduced the time Review Nurses spent updating patient records, increased the effectiveness of the company's administrative processes and saved thousands of dollars in managing the system.

Defining Solution Parameters

PacifiCare's road to finding the right mobile solution began with laptops – the route many enterprises often first explore. To their surprise, they found the solution actually complicated matters. Nurses could not find an area in space-challenged hospitals to set up their mobile office. As a result, each nurse now added on two hours per night for typing handwritten notes into their computer before emailing them to their dedicated MIC. Yes, laptops reduced errors, but they did not improve time spent with patients or shorten administration time, so PacifiCare found them to be an expensive investment.

When PacifiCare decided wireless corporate data access was the way to go, they had to consider several needs specific to the healthcare industry and their business systems. Some of these considerations included the fact that PacifiCare plan member data regulations are outlined through HIPPA, the Health Insurance Portability and Accountability Act of 1996.

Also in question was how "real-time" the access needed to be. At first, PacifiCare thought their nurses needed to be always connected. But practically, they realized that their representatives were often out of coverage, since some hospitals limit the use of wireless devices when not directly related to patient care. They also wanted to ensure maximum convenience by avoiding the need to continually log on and log off to send and receive data. WolfeTech Sigma's push technology emerged as the leader – offering near real-time access. It worked seamlessly, as if it were in a coverage area, even when it was not, allowing data to be stored until it could be forwarded to the company's database.

BlackBerry and the WolfeTech Sigma Toolkit Team Up for Success

PacifiCare approached WolfeTech Development Corporation, a California-based wireless software applications developer dedicated to the BlackBerry platform. A pilot project was launched with 26 nurses. Using the WolfeTech Sigma development toolkit, PacifiCare was able to turn their patient form into a wireless application. Review Nurses visited patients and input their data in near-real-time, on-site from the hospital. With just a few clicks, data collected was sent directly to the MICs for entry into PacifiCare's back-end systems.

Together, the WolfeTech Sigma solution and the BlackBerry Wireless Handheld exceeded the high security requirements regulated by HIPPA. Sigma security measures include a kill-switch feature, which enables the Sigma administrator to instantly wipe all sensitive data from the BlackBerry handheld. Should the handheld be lost or stolen, PacifiCare's confidential health information is protected.

Accessing Data On-the-Road Delivers Instant Rewards

The new process created two immediate benefits. First, it pushed individualized patient lists (also known as Census) to each of the nurse's BlackBerry handhelds. Secondly, appropriate forms for each patient were pushed to the handheld; data that is static is programmed in to eliminate the time needed to fill out known information. Time spent filling out patient notes was reduced from five minutes to three minutes per patient – for an average reduction from 85 minutes to 51 minutes per day. The two hours per night spent faxing was completely eliminated.

The benefits were equally noticeable for the MIC, who gained a more balanced workload. Instead of having to wait for data to arrive in bulk at the end of the day, they now receive it regularly and often in real-time. And data was being received electronically using the Sigma, eliminating the lengthy transcription and re-inputting processes used before. PacifiCare found that they could now have more Review Nurses reporting to fewer Medical Information Coordinators. Instead of a one-to-one relationship, one MIC could multitask to handle seven Review Nurses.

And for PacifiCare plan members, they discovered that patient records could be updated in a more timely, cost effective way. Faster, more accurate plan member information and better plan member care became the norm.

Saving Time, Saving Money, Improving Patient Care

Today, the WolfeTech Sigma solution with BlackBerry offers the efficiency, cost savings and improved plan member care that PacifiCare hoped for. The benefits include:

- Review Nurses reduced their average 85 minutes per day to 51 minutes per day for inputting patient data – allowing them to spend more time with patients
- Review Nurses saved two hours per day in faxing and dedicated the time to patient reviews
- The Review Nurse/MIC team costs were reduced from \$42,000 per team, per year to almost \$17,000 per team, per year – for a total savings of \$25,000 per team, per year
- The cost of BlackBerry, including WolfeTech's Sigma deployment, was 50% less expensive than a laptop solution and offered increased functionality.
- The new solution reduced the need for human resources – one MIC could handle seven Review Nurses instead of the one-to-one ratio required before
- Errors related to handwriting were significantly reduced, delays were decreased – translating into better customer care.

Going Forward

For PacifiCare's needs, BlackBerry equipped with the WolfeTech Sigma mobile enterprise solution provides exactly what was needed to reinforce PacifiCare's dedication to improving relationships with key stakeholders through enhanced technologies. The solution offers a way to use wireless technology to offer customer-centric, improved, tightly integrated and near real-time access to vital membership and health information.

PacifiCare plans to extend the Sigma solution with BlackBerry to several hundred nurses in early 2004 and projects exponential increases in savings and improved plan member care.

Return on Investment with WolfeTech Sigma and BlackBerry

| TASK | MANUAL PROCESS | SIGMA AND BLACKBERRY® | SAVINGS WITH WOLFETECH SIGMA AND BLACKBERRY |
|--|--|--|---|
| Completing Patient Notes | 5 min x 17 patients = 85 min./day | 3 min. x 17 patients = 51 min./day | SAVE 34 min./day |
| Faxing Notes to MIC | 120 min./day | 0 min./day | SAVE 120 min./day |
| MIC data entry | 1 MIC :1 RN ratio 480 min./day \$96/day | 1 MIC: 7 RN ratio 68.5 min./day \$13.70/day | SAVE \$82.30/day |
| TOTAL COST RN/MIC TEAM PER DAY | \$161/day/team | \$43/day/team | SAVE \$118/day |
| TOTAL COST RN/MIC TEAM PER YEAR | \$41,860/year/team | \$11,305/year/team | SAVE \$30,555/year/team |

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