

Case Study

Ohio State University Medical Center



The OSU Medical Center Administers a Dose of Preventive Medicine with XcelleNet



EXECUTIVE SUMMARY

About OSU Medical Center

The Ohio State University Medical Center is consistently recognized by U.S. News and World Report as one of the best hospitals in the nation. Located in Columbus, Ohio, the medical center provides care to 33,000 inpatients and 625,000 outpatients every year.

Business Pain

Commitment to technological innovation in practice led the OSU Medical Center to initiate implementation of Palms for all residents and third and fourth-year medical students. Their innovative plan was carefully conceived and they recognized that the devices wouldn't be useful unless the information contained on them was continually updated. They needed a means to update them that would be convenient, and painless to the time-strapped users.

The Value of the XcelleNet Solution

The XcelleNet mobile infrastructure solution enables the OSU Medical Center a way to ensure that the most accurate, up-to-date information and applications are available to their users. The syncing process is so easy and quick that the users can stay up-to-date all the time—saving the medical center countless headaches.

For ten years running, the Ohio State University Medical Center has been recognized as one of the nation's best hospitals by U.S. News and World Report. The medical center, located in Columbus, Ohio, prides itself on its commitment to patient care, teaching and research.

The OSU Medical Center operates autonomously from the Ohio State University, managing profits and losses just as any other business would. With five hospitals and fifty outreach sites, the medical center employs 800 attending physicians and over 500 residents. Over 800 medical students receive their training at the OSU Medical Center facilities. The medical center provides care to approximately 33,000 inpatients and 625,000 outpatients every year.

In addition to their distinction as one of the top hospitals in the country, they've received numerous accolades for their progressive use of technology in medicine and teaching. In fact, the XcelleNet solution most recently helped the medical center win additional kudos, with the American Hospital Association's Innovator Award for innovative use of technology in Healthcare, and the 2001 Elizabeth Davies award for accomplishments in providing an electronic Medical Record.

Through the use of laptops, the medical center has eliminated the need for paper with electronic access to patients' medical test results. They've also completely eliminated the use of X-ray films for patients within their health system. Laptops enable physicians to review electronic copies of X-rays with patients in the privacy of their rooms. In the operating rooms, medical personnel can view the X-ray images on flat screen monitors. "The system paid for itself in less than two years," says Phil Skinner, director of the OSU Medical Center's Enterprise Services.

Recognizing Possible Side Effects

As a healthcare provider and educator that's constantly striving to use innovative new ways to improve the level of care, the OSU Medical Center decided to implement a program of distributing

hand-held devices to residents to enable them to access a wide variety of clinical results programs.

With the new technology, residents and third and fourth year medical students could access a wide range of applications, including drug interaction software, medical calculators, patient medical records, applications relevant to completing rounds, as well as documents such as phone lists. The implementation would enable these medical providers in training to access a single source for information, enabling them to become more efficient, freeing up valuable time to devote to patient care.

No strangers to technological advances, the experts at the OSU Medical Center quickly recognized the danger of negative side effects from outdated information. They knew that the information on the devices would only be useful if it were completely current.

"How would we update the software without having to touch 1600 Palms every time?" asked Phil Skinner. "Additionally, we were somewhat worried about asset management and image management.

IT experts at the medical center didn't want their new remedy to develop into a big headache before the program even began. They knew they needed a solution that would enable them to keep information up-to-date without inconveniencing their users—people making life and death decisions every day who didn't have time for a lengthy syncing processes—people who couldn't afford to make mistakes based on outdated information.

Discovering the Cure

As part of their plan to implement a new technology, the technology experts at the OSU Medical Center began evaluating vendors to solve their hand-held device woes. Foresighted technology planners at the OSU Medical Center could easily imagine the problems of keeping 1,600 Palms synchronized—either repeatedly shipping every device to a central location for updates or creating complicated, time-consuming

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– Phil Skinner, Director of Enterprise Services at OSU Medical Center

detailed user instructions to enable users to update devices themselves. Such manual update scenarios were simply unacceptable, so they began looking for an automated solution.

While evaluating XcelleNet's competitors, they found that while other companies did some things well, they couldn't handle challenges like software deployment, asset management and device management. A representative from another vendor suggested that they consider XcelleNet.

"We took a look and decided upon XcelleNet," says Phil Skinner. "The deciding point—XcelleNet's solutions did more, were easier to use and cost less than partial solutions from their competitors. XcelleNet had all the capabilities we needed."

Getting the Right Treatment

In August of 2001, the OSU Medical Center instituted the use of Palms for all residents and for all third and fourth year medical students. Since then they have deployed 1,600 devices. From the beginning they relied on XcelleNet's mobile infrastructure solution. XcelleNet's solution made the OSU Medical Center's goal of streamlined syncing a reality.

Synchronizing is easy. Users simply stop by any nurses' station or the student lounges in order to engage infrared technology. Within a minute or two the user is completely updated. It couldn't be easier, says Phil Skinner, "If we have software updates, XcelleNet's solution pushes a new version onto the devices."

And, XcelleNet's solution recognizes different user profiles, tailoring updates to each specific user group. "We have several user profiles, including one for medical students, one for residents and another for attending physicians. When users connect to the XcelleNet software it knows which updates to push depending upon their profile," says Skinner.

"Residents come in in the morning, take their Palms to the nurses station and use the infrared port to sync. The syncing process starts immediately, giving them their patient list and their patients' medical history for the past 48 hours," says Skinner.

The benefits include the certainty that users have the most current software without having to continually initiate time-consuming and expensive manual interventions.

"We've definitely realized the benefits of the XcelleNet solution," says Skinner. "The medical students and residents have the most up-to-date patient information with them wherever they go. If any of them get paged, they have the right information where they need it—right in front of them."

Evaluation and Management

While synchronization concerns were at the forefront of the decision to employ XcelleNet's solution, asset management was also a worry to the technology experts at the OSU Medical Center. Luckily, the XcelleNet software offered the OSU Medical Center more asset management capabilities than they needed.

Included with XcelleNet's mobile infrastructure solution are device management features that allow the IT department to know who has which device, which software is licensed to each device, and how much memory is remaining. One of the great benefits of these features is that the IT department can keep track of inventory control without a labor-intensive initiative.

Another benefit is enhanced helpdesk assistance that can aid in diagnosing and treating IT problems. By examining logs via a web browser, helpdesk personnel can troubleshoot a variety of problems, such as determining if a user's inability to sync is related to lack of memory requiring a possible upgrade.

Additionally, proper inventory control knowledge can save time and money. For example, before pushing software upgrades, the helpdesk can verify whether the current users systems meet the upgrade requirements and if the upgrades are necessary.

A Healthy Future

As a leader in medicine and in technology, OSU Medical Center strives to make technological innovations beneficial to their current users and to their bottom line.

"Instituting the handhelds and keeping the information up-to-date has helped a lot from a physician standpoint," says Phil Skinner. "Just providing the handheld devices to medical students has increased their loyalty to our institution. They all want to stay and complete their residencies here. The medical students appreciate that they're exposed to the latest technology while they're studying here."

In addition to the current benefits, the technology experts at the medical center envision additional uses for XcelleNet' solution in their future.

"One thing we'd like to do is to make the synchronization process occur in real-time by wirelessly enabling the devices. Then, if a patient's medical test results were out of the norm, the resident would be alerted to the fact immediately," says Phil Skinner. Another potential future use of XcelleNet's software at the OSU Medical Center is managing the numerous wireless laptops currently in use. "We'd like to use the XcelleNet solution to manage the software on the laptops. The desktops are easy for us to manage, but the laptops present more of a challenge," says Skinner.

"We're very satisfied with what XcelleNet's solution has done for us. We're excited to leverage the existing capabilities within the solution to do even more," says Phil Skinner.