



Wireless communications leads to better patient care

Customer Profile

Memorial Hospital and Health Care Center is a 133-bed, regional health care facility with a staff of more than 1,300. Located in Jasper, Indiana and serving eight counties, it was named one of the nation's Top 100 hospitals by Thomson Reuters in 2004 and 2008.



Situation

When Memorial Hospital built its new patient tower, one of the requirements was the inclusion of a system for wireless phones that would connect to its Rauland-Borg Responder® IV nurse call system. Their first wireless phone system was proprietary and therefore, the phones only worked in the new patient tower, not in the original adjacent building. Nurses who moved from one building to the other would be out of touch, which was a concern for the hospital.

As the wireless phone system reached the end of its life, it created an opportunity to re-think where the hospital wanted to take its communications in order to continue providing a high level of patient care.

"While we were looking at the hospital overall, the wireless phones for the nurses were most critical," said T.J. Skelton, clinical engineering/communications supervisor at Memorial Hospital. "They use them both as their regular phones and as an interface to the nurse call system. We needed to make sure the phones met their requirements."

At the same time, Skelton is also looking ahead to Memorial Hospital's telecommunications future. He hopes to bring both the hospital and its offsite offices and medical clinics under a single call management system. He also wants to route non-emergency calls differently so the number of inbound phone calls at the clinics are balanced with the personnel available to answer them. He is looking for a solution with the features and flexibility to accomplish both goals.

Solution

Matrix Integration and the hospital staff selected wireless communication devices and a converged network with Voice-over-IP. The solution Matrix Integration proposed was reliable, easy to manage and allowed them to meet their exact needs.

For the nurses, Matrix Integration recommended moving voice onto the Cisco wireless network that was already in place for their workstations on wheels. The nurses were given a choice of phones from different vendors, but ultimately selected Cisco for its menu-driven ease of use. Cisco Nurse Connect was used to link the phones to the Responder IV nurse call system, providing capabilities they'd never had.

Results

The new Cisco phones were an instant hit with the nursing staff.

"They liked that the phones didn't require a lot of training," Skelton says. "They operate like cell phones instead of computer hardware, yet allow each nurse to customize them to the requirements of his/her job."

One of the most important new capabilities is what happens when a "Code Blue" – a cardiac arrest – occurs. With Memorial Hospital's old system, when the Code Blue button was activated it could only reach phones programmed for that particular floor. With the new Nurse Connect system, the call not only goes to that department but also to the Emergency Room doctors and ICU nurses – the staff most capable of handling the situation – who are part of the emergency response team, no matter where in the building they're currently located.

Another important new capability is the Rapid Call feature, which a nurse can use to summon help with a patient who has become combative, has fallen to the ground or has other issues. Previously, a nurse in a patient's room could only connect to the first person who responded, which may or may not be the right resource. Now, by holding the Rapid Call button for two seconds that nurse automatically creates a hands-free conference call, allowing him/her to contact multiple resources at the same time.

"Our staff feels much safer with this new Rapid Call method," Skelton says. "With their hands free they can continue assisting patients while they talk, and they have a better chance of reaching someone who can help."

Memorial Hospital is expanding the wireless phone system throughout the hospital as part of its overall plan to upgrade communications. Over the next five years they hope to move the entire system to Cisco Call Manager. And Matrix Integration will be right there with them.

"Matrix has bent over backwards to help us get this program launched," Skelton says. "They've been here at every step, even training our telecom staff to manage the system. Their support has been phenomenal."

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