

CASE STUDY

WLAN



HEALTHCARE

Kadlec Medical Center

Kadlec Medical Center, a 150-bed facility located in southeastern Washington, was an early healthcare pioneer in the use of wireless technology for patient care, rolling out a Proxim RangelAN2 network in 1999. The system has proved so popular with nurses, doctors and pharmacists for tracking and recording patient care that its bandwidth topped out by 2002, and Kadlec needed to find a new option. It again turned to Proxim, becoming the first hospital to implement an IEEE 802.11a network for patient care.

"We wanted increased speed and bandwidth," noted Kadlec Chief Information Officer David Roach. "And security was paramount, given the new HIPAA regulations."

The hospital examined 802.11b, 802.11g and 802.11a networks. Because 802.11a networks have five times the bandwidth of 802.11b products, "we decided to skip a generation of technology in favor of a faster solution," explained Roach.

As for the right 802.11a system, Proxim was the hands-down favorite. "Proxim's Harmony 802.11a solution gives us the speed and security we were looking for. And we really like the design, with the centralized management control. We're a small IT shop that maintains very sophisticated technology," noted Bret Helms, PC support technician for Kadlec. "Harmony's centralized management allows us to easily manage a large wireless deployment."

Working with McKesson Information Solutions, Kadlec designed and installed a pilot network in a 19-bed surgical unit, where patients stay between three and eight days. The implementation took just 10 days.

During the test, which ran from May to September, the system handled just one application, McKesson's Care Manager, which allowed the unit's nurses to record patient treatments and administer medication on laptops equipped with wireless cards. Some nurses recorded the information in the patient rooms, placing the laptops on mobile carts they wheel into the rooms, while others input the updates between rooms. This nearly real-time information tracking improves patient safety while reducing the chance for errors.

Kadlec is currently deploying the network across its four-building campus, which will use more than 70 access points and wireless cards for some 120 laptops. With the 54 Mbps speed provided by the Proxim equipment, Kadlec also will include more applications, adding functionality not possible with its first-generation wireless system.

The new system "is as fast or faster than a desktop," says Roach. It takes just one second to access the Internet, compared to 7 or 8 seconds with the older network. Similarly, launching the Care Manager program is three to four times faster, a huge time savings for the nurses since they constantly log in and log out to preserve patient privacy rather than leave the program running. Sums up Roach: "The new network is meeting all of our expectations. It is helping us improve efficiency and ease of use while enhancing patient care."



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