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## Networking Delivers Healthy Connections

Technology links healthcare providers for community success and patient safety.

By Vicki Powers

The complete Cisco iQ magazine article is available at

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### Improved Patient Care

Wilkes Regional Upgrades to Support New Applications

Like many other community hospitals, North Carolina-based Wilkes Regional Medical Center relied on an aging network infrastructure. In order to improve patient care and keep pace with other organizations, the facility decided to upgrade its information technology to bolster security, mobility, and performance. At the same time, the center hoped to build a foundation for supporting emerging medical applications such as mobile nursing carts, EHR, and picture archival and communication systems (PACS). Internetwork Engineering, a Cisco Silver Certified Partner, helped Wilkes redesign and upgrade its entire IT infrastructure, which involved the implementation of a Cisco wired and wireless network and a migration to a Microsoft active directory server architecture.

"Ultimately, we want to improve patient care by having our network up all the time," says Doug Brown, controller at Wilkes Regional, a facility that comprises a 130-bed main hospital, off-campus physician office, wellness center, and home health services. "If your network is up 99% of the time, you don't lose productivity in the hospital. We also don't have to expend as many resources to keep it running, so we're saving money."

Launched in December 2004, the new systems support the organization's medical application needs—from mobile nursing carts to remote connectivity—for 70 physicians. For instance, the wireless network provides secure coverage within the hospital, allowing nurses to move freely with the hospital's 20 mobile nursing carts to complete clinical documentation. Using the carts, Wilkes nurses make fewer documentation errors, spend more time with patients, and access data and real-time documentation at the bedside. Nurses no longer depend on memory or written notes to do charting at the nursing station.

Applications like this one are just the beginning for Wilkes Regional. "We're trying to build the network so it's 'future proof' and can handle the applications we want to add later," Brown says. "The network should be sufficient to handle audio and video as well as remote connectivity, for which we're getting more demand."

Eventually, the group's Health Information System will be compressed onto a single database, which will simplify the process of retrieving data from multiple applications. This step represents the initial stage of Wilkes's EHR rollout. In the next 12 to 18 months, physicians will have realtime access to data and will be able to place orders online and view patient records remotely. These changes are intended to make critical information readily available to physicians when and where they need it.

"More community hospitals are seeing the need for technology and are beginning to wake up to the fact that they'll have to progress further than they have in the past," Brown says.

As an added benefit, the Wilkes IT department will now have the tools to manage the network proactively instead of simply reacting to problems as they occur, allowing staff to spend more time working on projects such as expansion, service improvements, and staff training.

"Part of the key to success for all this is getting physicians the one-on-one training they need in a private environment. Overall, I think physicians will respond favorably," Brown says. "And IT will have more time to accomplish this now."

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### About the Author

Vicki Powers is a Texas-based writer focusing on business and technology issues.