

The Internet of Things writes an Rx for better patient care

For patients in any hospital, every minute spent waiting to see the doctor can seem like an eternity. [Henry Mayo Newhall Hospital](#) in Valencia, Calif., wanted to enable doctors to spend less time at computers and more time at the bedside. Realizing the potential of [the Internet of Things](#), the hospital created an [intelligent system](#) that vastly speeds up access to patient data. The system connects 175 new thin-client devices and its physicians' own devices to existing datacenters and systems, creating anywhere, anytime access to data — from patient records to test results, prescriptions and more. By focusing on this one aspect of its business, the hospital is able to provide better care while vastly improving doctor efficiency.

Faster, more flexible access

Besides needing to meet strict security standards, Henry Mayo knew the new system had to be faster and easier to use. “Access to patient information was a priority,” says Adnan Hamid, director of Information Services at Henry Mayo Newhall Hospital. “We can build a great system, but if we can't provide an easy path to data, then we're facing a barrier for adoption.”

Henry Mayo implemented an intelligent single sign-on system from [HealthCast](#) to vastly simplify the data-access process. The new system allows doctors secure access to review lab tests, enter prescriptions, or look at patient records from either installed terminals or their own laptop, tablet or smartphone, so they can provide care from anywhere. Based on Microsoft technology, the 175 new thin clients run [Windows Embedded](#); the back-end infrastructure is powered by [Windows Server](#), [Microsoft SQL Server](#) and [Active Directory Domain Services](#).

To use the system, doctors log in once at the start of their shift, then use their ID badge, which also doubles as a proximity badge, to tap into the system at thin-client devices located throughout the hospital. That cuts the initial login time by 95 percent; and with one tap of their badge, clinicians can re-access their patient records and other data at any thin client within six seconds. And the specific selection of apps and records is customized to the user's identity, so doctors get what they need, when and where they need it, quickly and easily.

“Secure and accessible”

A few key improvements in data access have had a big impact on efficiency. The hospital's previous system was cumbersome and time-consuming, running a variety of separate software applications, including those for patient medical records, timekeeping systems, medical imaging repositories, speech recognition software and email. Doctors and staff needed to access information throughout the day — from locations throughout the hospital — and logging in each time could take up to two minutes. And doctors had to memorize a large number of usernames and passwords.

The new solution is so easy to use that Henry Mayo's IT staff has seen a 70 percent drop in password-related help-desk calls. With their proximity badge automatically entering their username, and only one password to enter at the beginning of the day, staff members are less likely to forget their login information or lock themselves out of the system.

The secure system also includes bar-code scanners for patient wristbands and medication labels, and makes it easy to add new devices and apps in the future, to increase the amount of information that can be captured and used for patient care.

“The single sign-on solution from HealthCast and Microsoft has really set the stage for user adoption of our EMR system,” Hamid says. “By providing clinicians with a system that’s secure and accessible, we have deployed a workflow solution that enables clinicians to take better care of patients.” By making a few simple changes — adding a “bring your own device” (BYOD) strategy and 175 new thin clients and connecting them with existing infrastructure — the hospital created the Internet of Henry Mayo’s Things, and transformed the efficiency and effectiveness of its patient care. The staff is happy with the new technology, and it’s causing a bit of a buzz among competitors, too.

“Doctors at other hospitals have heard about our advances to make our doctors’ lives easier and improve patient care,” Hamid says. “I’ve heard from my peers at other hospitals that their doctors are envious of our new system. That’s always a good thing to hear.”

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