



# windows embedded health customer case study



## Hospital Saves \$500,000 and Simplifies Access to Records with Intelligent System

**Customer:** Rockford Health System  
**Website:** [www.rhsnet.org](http://www.rhsnet.org)  
**Customer Size:** 3,000 employees  
**Country or Region:** United States  
**Industry:** Healthcare—Hospitals  
**Partners:** HealthCast, HP  
**Partner Websites:**  
[www.gohealthcast.com](http://www.gohealthcast.com)  
[www.hp.com/go/thinclients](http://www.hp.com/go/thinclients)

### Customer Profile

Based in Rockford, Illinois, Rockford Health System is an award-winning regional healthcare provider with more than 3,000 employees. The company's services include a hospital, outpatient clinics, and home healthcare.

### Solution Spotlight

- Cuts hardware costs by US\$500,000
- Enhances patient care with streamlined access to electronic health records
- Saves physicians an estimated 30 minutes a day
- Improves manageability and security with remote administration and integration with existing IT infrastructure

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*"We save approximately \$500 per device by running HealthCast's Single Sign-On Software with Windows Embedded on HP thin clients—with 1,000 devices deployed, that's a savings of \$500,000 in hardware costs alone."*

*Shawn David, Chief Technology Officer, Rockford Health System*

Rockford Health System wanted an enhanced sign-on solution that would streamline access to electronic health records (EHR). To improve efficiency, Rockford implemented an automated solution with HealthCast's QwickACCESS/eXactACCESS and Windows Embedded running on HP thin clients that connect to back-end servers. By providing centralized access to healthcare records, Rockford is improving clinician efficiency and increasing time for patient care, cutting costs by US\$500,000, and easing IT management with a more centralized, flexible solution.


### Business Needs

Rockford Health System is a leading regional healthcare provider with a 396-bed tertiary-care hospital, outpatient clinics, rehabilitation services, and home health care. Based in Rockford, Illinois, the healthcare provider has more than 3,000 employees. The company was included in *U.S. News and World Report's* list of 2012-2013 Best Regional Hospitals and received the 2012 Health Grades Patient Safety Excellence Award. To further enhance services, Rockford wanted to speed the adoption of electronic health records (EHR) by streamlining access to information.

Rockford was using multiple solutions to manage patient data, including a document management system, a nursing documentation and physician record viewer, and an in-house clinical data repository.

Each application had its own identity management solution, which challenged both hospital and IT staff. "Working with multiple systems could be time-consuming and frustrating, because doctors and nurses had to remember a different user ID and password for each application," says Shawn David, Chief Technology Officer at Rockford Health System. "We also had to





frequently reset forgotten passwords and add or delete credentials separately for every system—it was a lot of maintenance.”

In addition, the American Recovery and Reinvestment Act of 2009 put pressure on hospitals to improve healthcare and efficiency in measurable ways by using EHR solutions. To meet the challenge while controlling costs, Rockford needed an intelligent system that would use affordable thin client devices and an automated identity-management solution to give hospital staff fast, secure, and centralized access to disparate healthcare records and applications.

## Solution

In April 2010, Rockford began deploying the EpicCare EMR solution, which would integrate healthcare records with billing information. Rockford asked HealthCast, a leading provider of healthcare technology, to implement an enhanced sign-on solution that would give users fast, automated, and secure access to multiple applications and medical devices through its QA/XA software. The identity-management solution uses HP thin clients running the Windows Embedded operating system. The thin clients are connected to a back-end infrastructure that includes Active Directory Domain Services and Microsoft SQL Server software running on the Windows Server operating system.

HealthCast and HP realized that together these technologies would provide the manageability and security Rockford needed to centralize identity administration while allowing access to diverse applications and devices. HP, a worldwide market leader in thin client devices, provides a choice of operating systems. However, the company believes that Windows Embedded offers unique benefits to the healthcare industry. “Windows Embedded works easily with drivers for local medical devices,” says Eric Crosswhite, Americas Thin Client Manager at Hewlett-Packard. “That’s one of the greatest



advantages over Linux, which is not quite as plug-and-play.”

Equally important, the solution significantly improves user experience. With a standard proximity ID badge and only one password entered at the beginning of the day, healthcare staff can access numerous applications through an integrated EpicCare interface published from Citrix servers. Users tap their proximity badge on readers connected to any thin client, then HealthCast’s QA/XA Software authenticates and clinicians are connected not only to EpicCare, but also to multiple devices such as cameras, signature pads, and barcode scanners. Sessions are secured by the tap of a proximity badge or time out automatically when inactive. The same session can be resumed within seconds at any thin client.

A single interface for disparate health records

## Benefits

By providing centralized access to healthcare records with a solution based on Windows Embedded, Rockford Healthcare System is enhancing efficiency, cutting hardware costs, and improving IT manageability and security.

### Saves Time and Improves Patient Care

Rockford is improving efficiency and patient care with the HealthCast automated identity-management solution. In the past, it could take as long as 15 seconds to log into each application. “Now, with Healthcast’s QwickACCESS/eXactACCESS solution based on Windows Embedded, physicians don’t need to interact with the HP thin client to sign in—they can just tap their ID badge and continue talking with the patient. We



so easy and quick. Using this multiple times each day saves me a significant amount of time, which I really appreciate.”

#### **Cuts Hardware Costs by US\$500,000**

By using thin clients, Rockford is deploying a new EHR system more affordably. David says, “We estimate we save \$500 per device by running QwickACCESS/eXactACCESS with Windows Embedded on HP thin clients— with 1,000 devices deployed, that’s a savings of \$500,000 in hardware costs alone.

#### **Improves Manageability and Security**

Management is also easier and less time-consuming with a more centralized and flexible virtualized solution. Integration with the existing Active Directory infrastructure strengthens security as well. “We save approximately 15 minutes per user because we don’t have to create a new user account for each application, and we can remotely manage deployment. We can cut our deployment time in half by using thin clients,” says David. “We also have a lot of flexibility with the Windows Embedded devices and Active Directory infrastructure. We can securely publish software on servers capable of handling more complex applications and integration, and then push the solution out to a low-cost device in each room.”

#### Accessing health records in one tap

estimate that it can save them 30 minutes each day.”

Rockford has already installed 600 thin clients in physicians’ offices and clinics and expects to install 400 more devices by the time the project is complete.

Doctor Aaron Coates, a physician at Rockford Health system, agrees. “The HealthCast QwickACCESS/eXactACCESS system with Windows Embedded is convenient, a time saver, and it makes life easier.” David points out that improving efficiency also eases the adoption of new technology. “Because the

HealthCast single-sign-on solution is so easy to use, the transition to something new in the EHR world is much smoother.”

Doctor David Deutsch, a Pediatric GI physician at Rockford Health System adds, “As a busy physician, I look for any opportunity to save time. Multiple log ins or extra clicks to access Epic are frustrating. Tapping into Epic using SSO is

#### Software and Services

- Windows Embedded Standard 2009
- Microsoft Server Product Portfolio
  - Windows Server 2008 R2 Enterprise
  - Microsoft SQL Server 2005 Enterprise Edition
- HealthCast QwickACCESS/eXactACCESS

#### Technology

- Active Directory Domain Services

#### Hardware

- HP thin clients (t5730, t5740, and t610)