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David Finn
Vice President of Information Services
Texas Children’s Hospital



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Industry: Healthcare
HQ: Houston, TX

Problem: Remote Access
Solution: RSA SecureID, Citrix

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Texas Children’s Hospital Physicians and Staff Gain True Mobility with New Remote Access Solution

Many people in the workforce today are required to be on call literally day and night. But possibly the most demanding of these professions is the physician. Their schedules often require them to be available outside normal work hours, and they need access to patient information 24 hours a day, 7 days a week.

Secure Remote Access a Necessity Today

Texas Children’s Hospital, an internationally recognized, full-care pediatric hospital located in the Texas Medical Center in Houston, TX, knew it had a problem. With a medical staff of more than 1,580 board-certified physicians and pediatric sub-specialists, as well as a highly skilled nursing and support staff of more than 6,000 people, Texas Children’s needed secure remote access to its clinical systems and information. Physicians and staff had to be able to look at patient results, to review lab work and X-rays, and to sign off medical charts without the necessity of being physically present in the hospital or their offices.

Though they had a remote access system in place, Accudata Systems had developed it as part of a firewall/VPN upgrade four years prior and it was difficult to use. It required a client application to be installed on each user’s system, with a Virtual Private Network and digital certificates. Users found the solution difficult to install, configure, and maintain particularly in a home office where support was minimal. Additionally, there was no client application available for Macintosh computers, often used by Texas Children’s physicians.

“The client-based, remote access solution that we had in place was secure but it was also very cumbersome to use,” said David Finn, vice president of information services at Texas Children’s. “It was difficult for our users to install and maintain. Because of its unwieldy nature, it was never well received and not frequently used. Plus the old system didn’t have a client for Macintosh systems, so if you had a Macintosh computer, you had an entirely different process to navigate.”

Yet the demand for a secure, easy-to-use remote access solution was being felt more and more. Because its existing system has been designed by Accudata Systems, Texas Children’s called them to see what solutions they could offer.

“We have been working with Accudata Systems for some time,” explained Finn. “They were aware of our pain and the problems we were having. We laid out the issues and they began investigating solutions.”

“Texas Children’s Hospital came to us to help them design a better solution to extend services to their physicians remotely,” stated Patrick Vardeman, Accudata Systems account manager for Texas Children’s Hospital. “We came in and evaluated their needs – which basically were a secure and easily implemented remote access solution that leveraged their existing infrastructure.”

Six Specific Criteria for a Remote Access Solution

Texas Children’s criteria for a new remote access solution were specific and straightforward according to Finn. “We knew the old solution wasn’t going to work much longer. So we put some parameters around what we wanted for a new solution.”

Their parameters for a new solution included six specific criteria:

- Eliminate the need for a **client residing on user systems**
- Provide the capability for **2-factor authentication**, a security standard at Texas Children’s
- Be **easy to install** and **easy to manage**
- Leverage their significant investment in **Citrix**
- Be **truly mobile**. Be able to move with the physician whether at home or traveling, whether carrying his or her own laptop with them or not.

- ❑ Provide **remote access to all the applications** that are found on a standard desktop at the hospital

“We developed a perfect solution for them,” stated Vardeman, “RSA SecureID using 2-factor authentication. It satisfied all six criteria.”

RSA SecureID is a security product that uses two factors to identify the user – something the user knows and something the user has. The first factor can be a unique password; the second factor is a key fob that generates a unique number every 60 seconds, which the user enters when logging into the network. It is the combination of these two factors that assures a user’s identity and allows access to the system.

An authentication server was set up in Texas Children’s current Citrix environment, requiring no client application to be installed on users’ systems. Using the 2-factor authentication solution, Texas Children’s employees use a Web browser to access the network and establish secure connections remotely while the system identifies and confirms that they are who they say they are.

“It’s not only easier for employees but it’s actually more secure than the prior solution,” Finn noted.

Extending Services Securely

Part of due diligence required of healthcare organizations by HIPAA is ensuring information privacy and security. With a secure remote access solution in place, Texas Children’s now can extend more services to remote end users. Its Electronic Medical Records applications are more easily accessible from remote locations, such as off campus or home offices.

“It has solved our remote access needs, including addressing HIPAA security rules,” stated Finn. “An even bigger concern today is viruses and hackers – people gaining access to information they shouldn’t be getting into. From a remote access basis, this solution has resolved those issues for us.”

But Texas Children’s didn’t implement this solution because of HIPAA. It implemented it to provide better service for its physicians and staff, who truly needed a secure and manageable remote access solution.

“Using RSA SecureID,” Vardeman emphasized, “Texas Children’s is able now to make more applications available through Citrix remotely, which they could not do securely with their prior remote access solution.”

Before it was rolled out, Accudata Systems helped Texas Children’s to set up a day of continuous demonstrations of the new solution, to find out how well received it would be. Accudata Systems answered questions from the physicians, demonstrated the product, talked about the changes it would mean from the old remote access solution. The demos proved to be a key selling point for Texas Children’s personnel, allowing them to experience the solution first hand. In fact, as a result of the open house, Texas Children’s wound up with a waiting list of

people who wanted to get on the new system.

“Accudata Systems set up an open house where many of our people saw the product being demonstrated,” said Finn. “Once they saw it, they knew we would be able to keep much of what we had and just add some of the newer technologies into our current implementation.”

Texas Children’s rolled out the solution first to only 500 users, planning to deploy to another 500 by February next year. But word spread and the demand for the solution grew so strong that it accelerated its deployment to additional staff – physicians, their assistants and nursing staff – by roughly 5 months.

“Our Information Services assistant medical director was traveling earlier this year right after we had implemented it,” Finn continued. “While he was in Europe, he was able to go to an Internet café and check his email. The beauty of it was that he didn’t have to take a laptop with him.”

Decreased Support Calls, Increased Productivity

The number of support calls for remote access help at Texas Children’s has almost disappeared. Former 3-hour support calls spent walking users through a configuration have transformed into 3-minute calls helping people who have forgotten their passwords. The decrease in support calls has contributed to an immediate return on investment.

Productivity has increased, although the economic value of that increase is not easily measured. Doctors are now able to review charts and X-rays remotely. They are able to provide more immediate diagnosis and feedback from remote locations such as their home office or while traveling, rather than having to physically come into the office or hospital.

“Many of our physicians get paged at night to check a result or to look at an X-ray,” Finn said. “Instead of having to drive back into the hospital to do those things, they can do it all online now. From the physicians’ perspective, I know they are seeing significant increases in their productivity. And if the doctors are happy, we’re happy.”

“An on-call physician was at home recently, reviewing a patient’s record online,” he continued. “While looking at some X-rays, he found some anomaly on the X-ray and called the attending physician immediately, asking him to delay the treatment he had planned. In that case, the remote access really improved the quality of care for that patient.”

Before Texas Children’s implemented this solution, the physician wouldn’t have been able to look at the X-ray remotely.

“It is probably one of the smoothest implementations that I’ve been involved with,” Finn concluded. “It just works across the board.”

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