The Louisiana Rural Hospital Coalition is a state-wide non-profit organization that serves Louisiana's 41 small rural hospitals. With Louisiana identified as one of the most unhealthy and impoverished states in the US, the Coalition’s goal is to improve access to healthcare for rural communities.

To enable rural hospitals to offer a higher level of care, the Coalition has established a telemedicine system. As part of the initiative, the Coalition wanted to provide practitioners with faster access to patient information via a secure web portal.

To prevent unauthorized access to patient data, the Coalition uses CA's Identity & Access Management solution. This will enable the Coalition to seamlessly authenticate thousands of individuals and provide access to data based on their user privileges.

By establishing a secure platform for sharing patient data, rural hospitals in Louisiana can now access medical information more quickly and carry out remote consultancies with patients. This will help to improve the level of healthcare, and the wellbeing of hundreds of thousands of people across the state.
Business
Improving Louisiana’s rural hospitals
The Louisiana Rural Hospital Coalition (LRHC) is a state-wide trade organization that serves Louisiana’s 41 small rural hospitals. Collectively, the population served by these hospitals amounts to roughly 1.4 million, of which around 60 percent are recognized as impoverished, and of those 60 percent, 34 percent live 200 percent below the federal poverty line.

Many of these people are unable to get to hospitals for treatment. As a result, Louisiana has a poor health record, with the highest rate of death from chronic disease in the United States.

Established in 1994, the Coalition lobbies on behalf of its member hospitals to improve the rural healthcare status of the state. In particular, the Coalition focuses on federal legislative and administrative advocacy. Its accomplishments include the Louisiana Rural Hospital Preservation Act of 1997 — unique to Louisiana — which exempts members from damaging budget cuts.

The Coalition’s Building Healthy Communities program was formed in 2002 to facilitate the improvement of Louisiana’s rural hospitals. This program includes the development of long-term IT strategies that will aid patient care.

Challenge
Connecting specialists for better care in rural areas
Following the devastation caused by Hurricane Katrina in 2005, Louisiana was left with only one level-one trauma hospital that could offer treatment to uninsured or underinsured patients. This facility — the Louisiana State University Health Sciences Center in Shreveport (LSUHSC-S) — has run at 110 percent occupancy for several years. The Center receives such high number of inpatients and clinic attendees because hospitals in rural areas cannot offer the same range of treatments.

To alleviate the pressure on this central hospital, the Louisiana Rural Hospital Coalition created a partnership with the LSUHSC-S to find a way for rural patients to receive appropriate treatment nearer to their homes.

To achieve this goal, the partnership developed a Web-based telemedicine solution that connects rural physicians and specialists at LSUHSC-S. As Jamie Welch, CIO for the Louisiana Rural Hospital Coalition, explains, “The telemedicine solution enables doctors to participate in a remote consultancy with a patient and provides access to training for medical staff working at rural sites.”

As well as providing access to a vast library of up-to-date medical research for practitioners, the system also enables patients to access medical information in layman’s terms. LRHC is currently working with the Louisiana Cancer Board to add additional services to the telemedicine solution.

“Physicians could wait for long periods of time to receive patient records, and once received could not confirm that they were complete.”

Jamie Welch
CIO, Louisiana Rural Hospital Coalition
Secure and fast access to patient information

Evaluation of first-year results from seven rural hospitals confirmed that although the hospitals were benefiting from the sophisticated telemedicine system, patient records still had to be faxed or couriered between facilities. This created a number of issues, as Welch explains, “Physicians could wait for long periods of time to receive patient records, and once received could not confirm that they were complete.”

To resolve these problems, LRHC needed to create an additional component to the existing telemedicine system that would enable fast and secure transfer of patient records. This electronic patient records system is known as the Louisiana Rural Health Information Exchange (LARHIX).

As this system would involve the exchange of highly confidential patient data over the Internet, it needed to be extremely secure. “Patients are very wary of their personal information being accessed by unauthorized individuals,” comments Welch. “We had to ensure that both patients and practitioners had total confidence in the security of the system, otherwise they may opt out of using it.”

Solution

Preventing unauthorized access to patient records

To identify the most appropriate system to meet its needs, LRHC investigated 16 different options from a range of vendors before selecting the solution offered by a partnership between CA and Carefx.

While Carefx provided the portal technology needed to share and store documents, CA delivered an end-to-end Identity & Access Management solution for securing patient records. This is based on:

- CA SiteMinder® Web Access Manager
- CA Identity Manager
- CA Access Control
- CA Audit
- CA Directory

CA Services was responsible for the implementation of the solution, and provided comprehensive training and knowledge transfer to the in-house team responsible for managing the exchange on an ongoing basis.

CA’s solutions are crucial to the overall security of the system and the data it contains. In particular, the powerful combination of CA Directory and CA SiteMinder has enabled LRHC to protect LARHIX and create a centralized repository for all user accounts, which is used to authenticate hospital staff.

CA Identity Manager provides a centralized, web-based interface to manage user identities and helps automate the process of granting access to information based on different user roles. In the future, LRHC plans to use it to provide self-service functionality to users, including password resets. Administrative access to the servers that contain this sensitive information is

“"The CA Identity & Access Management solutions work together to ensure that only authorized users are able to access individual patient records.”"
controlled and logged by CA Access Control. “The CA Identity & Access Management solutions work together to ensure that only authorized users are able to access individual patient records,” adds Welch.

LRHC also uses CA Audit to track access to the exchange at a granular level. “CA Audit puts our compliance departments at ease, as we can track who has accessed which patient records via its audit trails,” comments Welch.

By February 2009, LARHIX will be used by 100 practitioners. This is expected to eventually rise to 2,500 unique users, with more users being added on an annual basis.

Once the project has received additional funding, LRHC will also implement the CA Security Command Center to enable centralized security tracking and provide monthly reports that will alert the organization to any unauthorized attempts to access the system.

### Result

**Extending specialist care to rural hospitals**

Using LARHIX, healthcare practitioners in Louisiana can access patient records regardless of whether they are at a small rural hospital or the LSUHSC-S. This means that specialized practitioners based at LSUHSC-S can provide remote consultations for patients at rural hospitals.

“As a result of the remote care that can be provided via the solution, patients on limited incomes no longer have to make numerous time-consuming and expensive trips to hospitals far from home to receive the treatment they need,” comments Welch.

By establishing a secure platform for sharing patient information and delivering healthcare services, LRHC has:

- Reduced the number of duplicated medical tests and associated costs
- Provided rural hospitals with fast and secure access to patient records to enable them to make the right treatment decisions
- Enabled the delivery of a wider range of treatments to rural patients therefore improving access to critical medical care

“CA’s Identity & Access Management solutions have helped to popularize electronic patient records with the people of Louisiana and maximize the success of LARHIX,” comments Welch.

To learn more and see how CA software solutions enable other organizations to unify and simplify IT management for better business results, visit [ca.com/customers](http://ca.com/customers).

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Jamie Welch
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