



Turn to the Experts.™

## Case Study – Doctors Hospital at Renaissance Women's Center

EDUCATION / HEALTHCARE / LODGING / MANUFACTURING / OFFICE BUILDING / RETAIL / SPECIAL



### i-Vū® Web-Based Integrated Control System Fine-Tunes Patient Comfort



#### Project Objectives

Doctors Hospital at Renaissance is a full service medical and surgical facility providing state-of-the-art healthcare to residents of the Rio Grande Valley in Texas. The new Women's Center is the only hospital in the area dedicated to women's healthcare. The new facility joins a growing campus that includes a Cancer Center, Behavioral Center, Rehab Center and numerous other specialized facilities. With construction of the Women's Center, the hospital management wished to implement a single controls network that would enable facility staff to efficiently monitor and adjust conditions all over campus from any Internet-enabled location.

#### Solution

Mechanical contractor Texair and GPM Engineering had a long, positive history with the Carrier Comfort Network® and recommended Carrier controls and interface for the Women's Center project. The Carrier i-Vū® webbased integrated control system was selected because it enables facilities personnel to perform detailed monitoring and adjustment of conditions in many parts of the Women's Center facility, providing reliable comfort to hospital patients and allowing facilities staff to optimize conditions from any computer in the hospital network. Furthermore, previously existing facilities were also integrated into the network; the i-Vū web-based integrated control system now permits monitoring of more than 10,000 sensor points all around the medical campus.

*The i-Vū® web-based integrated control system enables facilities personnel to perform detailed monitoring and adjustment of conditions from any web-enabled device.*

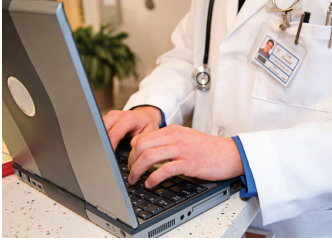




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*"We have very precise temperature and humidity requirements, for example in surgery. We can access and control the i-Vu® system all over campus from one location, or even, in the event of a hurricane or other emergency, from home."*

John Rustick,  
Associate Administrator for  
Doctors Hospital

*"We recognized early in the design the benefit of integrating the existing CCN system into the new i-Vu web-based system. The i-Vu system will accommodate future expansion plans and will save the hospital energy and maintenance costs."*

Daniel Lara, P.E.  
Project Engineer  
GPM Engineering

### Project Synopsis

Doctors Hospital at Renaissance is a full service medical and surgical facility that serves residents of the Rio Grande Valley in Texas with state-of-the-art healthcare in many disciplines, including cardiology, surgery, acute care and emergency medicine. Facilities include a Cancer Center, Imaging Center, Rehab Center and Behavioral Center. The new Women's Center is the only hospital in the area dedicated to women's healthcare, providing a maternity center, nursery, neo-natal intensive care unit, and medical and surgical facilities addressing women's disorders. A reliably comfortable atmosphere is critical to the well-being of hospital patients, particularly because they may be experiencing stress and discomfort related to their medical condition. Therefore, the ability of the facilities staff to effectively and efficiently monitor, adjust and troubleshoot the heating, ventilation and air conditioning (HVAC) system is of paramount importance.

With construction of the Women's Center, hospital management wished not only to select reliable, energy-efficient cooling equipment for the facility, but also to implement a single controls network that would enable facilities staff to monitor and adjust conditions all over the medical campus from any Internet-enabled location. Because GPM Engineering and mechanical contractor Texair had a long, positive history with the Carrier Comfort Network®, they recommended Evergreen® 19XRV water-cooled chillers and the i-Vu® web-based integrated control system.

The i-Vu system enables facilities personnel to perform detailed monitoring and adjustment of conditions in the Women's Center and beyond from any web-enabled device in the world. The i-Vu system monitors more than 10,000 sensor points all around the medical campus, allowing facilities staff to fine-tune the comfort requirements of different buildings and areas, as well as permitting the chillers' variable frequency drive to operate efficiently at part-load levels, saving energy and related costs.

John Rustick, Associate Administrator for Doctors Hospital said, "We have very precise temperature and humidity requirements, for example in surgery. We can access and control the i-Vu web-based integrated control system all over campus from one location, or even, in the event of a hurricane or other emergency, from home."

The hospital's aggressive construction schedule left Carrier just six months to install the equipment and controls for the Women's Center, but the Carrier field team was up to the challenge. "The controls company is typically the tail of the dog," said Steven Richey, Account Executive and primary salesperson on the project. "But our controls team kept us up ahead of the other trades, and we were able to stay ahead of the construction schedule."

Texair's Cesar Zepeda commented, "Everyone has been very pleased with the success of the Women's Center project. Most big jobs result in many callbacks after installation, but the customer has learned to work with the i-Vu web-based integrated control system very quickly, and they're happy to be saving money, thanks to the increased efficiency of the existing HVAC system under the new controls."

### Project Summary

**Location:** Edinburg, TX

**Building Age:** 1 Year

**Building Usage:** Hospital. Specialized women's healthcare, including maternity.

**Project Type:** New construction and retrofit integration.

**Building Size:** 200,000 sq. ft.

**Engineering Firm:** GPM Engineering, Corpus Christi, Texas

**Objective:** Provide comfortable, safe atmosphere for patients; provide effective plant management for hospital facilities staff; integrate multiple areas of hospital facility into one controls system.

**Major Decision Drivers:** Texair's positive history with the Carrier Comfort Network® led them to recommend Carrier chillers and controls to the hospital client.

**Unique Features:** i-Vu web-based integrated control system software enables monitoring of more than 10,000 sensor points in multiple buildings all over the medical campus.

**Design Considerations:** Heating, ventilation and air conditioning equipment must provide reliable comfort to patients and staff; controls must integrate existing systems with new construction into one easily managed network.

**HVAC Equipment:** Four 600-ton Evergreen® 19XRV water-cooled chillers with R-134a refrigerant.

**Controls:** i-Vu web-based integrated control system 3.1 with six integrator panels, 270 ComfortID™ controllers, VAV controllers and 19 6400's with 31 input/output boards.

**Installation Date:** October 2007

**Project Cost:** \$500,000+ .

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