

CASE STUDY

Woodstock Hospital

Executive Summary:

In 2008, Woodstock Hospital broke ground on its new facility – bringing its capacity to 178 beds and delivering on its mission to deliver the highest quality of care to residents of the Oxford County area while being recognized as the one of the best hospitals in Canada.

Three years later, the goal has been realized. On November 20, 2011, Woodstock Hospital opened its doors, offering its staff and the population of Oxford County with the most advanced operational and clinical services available today.



Business Challenge:

Architecting, designing, constructing and implementing the new facility took years of planning and preparation. Our number one challenge was to match Woodstock's needs and operational objectives with available technologies and determining how to ensure the project would remain on budget and be within the construction timeframe.

Most importantly, the leadership of Woodstock understood that the resulting facility and operation had to embody the principles the organization and help deliver on its promise of: (1) improving patient care – the overall experience and results (2) improving the collaboration among care providers, clinicians, patients and their families, and (3) reducing the cost of services.

Solution:

In partnership with EllisDon, a leading provider of construction and engineering services and Cisco Systems, a worldwide leader in infrastructure technologies – PX Solutions engineered the strategy from the blueprint-level up. Today, the entire facility runs on the Cisco® Medical-Grade Network platform, providing multiple services across one Internet Protocol (IP) network – supporting data, voice and video on one platform and facilitating and integrating diverse business and clinical communications between patients, administrators and partners in a highly secure environment.

“With the future of healthcare quickly evolving, the Woodstock Hospital has demonstrated vision by offering a state of the art facility to better enable health outcomes for their community,” stated Geoff Kereluik, CEO of PX Solutions. “We are delighted to have had the opportunity to partner with hospital to deliver a world class converged network that is enabling the hospitals ability to operate and communicate now and for years to come.”
-Geoff Kereluik, CEO, PX Solutions

Project Highlights:

- The Cisco Unified Communications solution includes approximately 1,000 IP phones, made up predominantly of Cisco Unified IP Phones 7975G and 155 Cisco Unified Wireless IP Phones 7925G. Approximately 165 IP phones are located in patient rooms and will provide telephony and entertainment services. Hospital staff will benefit from Cisco Unified Communications features such as single-number reach, allowing hospital staff to receive calls on any IP phone or wireless device.
- The Cisco wireless network will also support third-party applications to enhance staff collaboration, such as Nurse Call and EXTENSION Mobile, an application that allows physicians, nurses and other clinical staff members to stay connected to each other and to patients from any location, using any wireless device.

- Wireless capabilities will also support real-time Location-Based Services with Radio Frequency Identification (RFID) tracking to locate hospital assets such as biomedical equipment and assist in the safety and way finding of patients and staff.
- Additionally, the network will support several patient-monitoring systems including Spacelabs and Primex (temperature monitoring), operations systems including ISIS Pro (for bed management), and equipment sterilization.
- The network core incorporates Cisco Catalyst 6500 Series Switches and Virtual Switching System 1140, firewall and packet inspection modules and Cisco Aironet® 1142 wireless access points. In the data centre, redundant Cisco Nexus® 5000 Series Switches feed Cisco Nexus 2000 fabric extenders to simplify the data centre architecture and operations that will further enhance the patient and/or clinician experience.

Results:

The network engineered by PX Solutions facilitates and integrates diverse business and clinical communications throughout the continuum of care, providing anytime, anywhere, information capture and access for wired and wireless applications and devices. The network supports data, voice and video networks and enables the transfer and storage of the large amounts of data created by healthcare applications. In addition, Cisco MGN platform supports the unique information, technology, bandwidth, and integration challenges facing Woodstock while providing identity and policy-based security from inside the network to beyond organizational walls.

“Woodstock Hospital is committed to its vision of providing first-class health care to our community. To fulfill our mandate, we need to be a leader in innovative, high-quality services and keep a pulse on the latest healthcare tools and technology. The Cisco Medical-Grade Network offers the infrastructure we need to provide our staff with the equipment and information they need to facilitate patient care and deliver the best health services possible,” stated Natasa Veljovic, president and CEO, Woodstock Hospital.