



CASE STUDY

Sault Area Hospital

Executive Summary:

In 2002, Sault Ste. Marie General Hospital and the Plummer Memorial Public Hospital formed the Sault Area Hospital (SAH) - whose mission is to deliver the highest quality of care to residents of the Algoma region while being recognized as the one of the best hospitals in Canada. Nine years later, the goal has been realized. On March 6, 2011, SAH opened its doors for the first time, offering its staff and the population of Algoma with the most advanced operational and clinical services available today.

Business Challenge:

Architecting, designing, constructing and implementing this facility took years of planning and preparation. Working with a variety of service providers, evaluating technologies and determining how to ensure the project remained on budget and to be delivered within the development timeframe was a steep challenge. What the leadership of SAH knew was that the resulting facility and operation had to embody the principles of the two merging entities and deliver on its promise of: (1) reducing the cost of services, (2) improving the collaboration among care providers, clinicians, patients and their families, and (3) improving results.

Solution:

"PX Solutions and EllisDon developed a comprehensive IT infrastructure design intended to provide for the hospital's requirements now and well into the future. The hospital's infrastructure runs on a Cisco Medical-Grade network that enables several services across one network, supporting data, voice and video communications. This complex infrastructure facilitates business and clinical communications between patients, clinicians, administrators and their partners in a highly secure environment. This all enables a continuum of care anytime, anywhere, across a wired and wireless infrastructure and via multiples of applications and devices," added Geoff Kereluik, CEO, PX Solutions.

Project Highlights:

All hospital systems are IP-enabled within the network, including Cisco Unified Communications, physical security systems, lighting, building controls and surgical suite video capabilities. Surgical suites are connected to the Ontario Telemedicine Network, allowing remote access to live high-definition video collaboration resources. Specialists in other locations can provide expert advice during surgeries, and videos can be used for teaching purposes.

The Cisco IP-phone patient-bedside terminals will provide patients with telephony, entertainment services, lighting controls, Internet access and nurse call. The terminals will also support bedside charting and access to patient data, delivering clinical information with a high degree of security at the point of care.

- The 10-gigabit medical-grade network, incorporates Cisco Catalyst® 6513 and 4510 switches, Cisco Aironet® 1142 wireless access points and Cisco CleanAir technology to optimize the wireless network and mitigate the impact of wireless interference. The network also supports Cisco Unified Communications, Cisco IP Phones 7945G and 7911G, and Cisco Unified Wireless IP Phones 7925G. In addition, all building controls and physical security were added to the network.
- Location-based services with radio frequency identification tracking is available to locate hospital assets and assist in the safety of patients and staff.
- The Cisco Medical-Grade Network 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 health care applications. The Cisco Medical-Grade Networks supports the unique information, technology, bandwidth and integration challenges of health care while providing identity- and policy-based security from inside the network to beyond organizational walls.

Results:

“The future of healthcare is changing and our vision for the new Sault Area Hospital was to lead that change. With tremendous support from the government and our technology partners, we are delighted to have built this leading edge facility for Northern Ontario. The expertise of our partners has allowed us to build future-proof networking technology from the blueprint level, helping us to deliver new and innovative services to our patients, clinical staff and community,” observed Jeff Weeks, CIO, Sault Area Hospital.

Sault Area Hospital is a visionary facility with one of the most comprehensive network solutions of its kind in Canada. One that supports the hospital’s vision of providing excellence in healthcare.