

A VISION OF THE FUTURE

*CEO Bill Kurtin and Managing Director,
Technology, Glen Landry talk about the role
of collaboration and innovation in creating
the healthcare facilities of the future*

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Ontario is currently experiencing a series of facility upgrades to implement the latest technology and the most efficient patient-oriented service management systems into the healthcare industry. New construction projects are also underway in areas where smaller facilities are being amalgamated or out of date ones being replaced by new efficient and cost effective solutions.

Creating this new face of healthcare has many challenges, and the latest medical technology and lean processes are merely the visible elements. Building design and construction are instrumental in achieving long-term operational efficiency and the best environmental performance. Future-proofing the infrastructure so it can accommodate the next generation of technology is also crucial to avoid excessive costs, downtime, and loss of efficiency in the future.

At the heart of infrastructure development lies a range of technical disciplines that span electrical, mechanical, life safety, building control, structured cabling, automation systems, and information communication and automation technologies. Traditionally, these are provided by contractors operating in silos. Plan Group has gathered these capabilities together under one roof with a unique blend of innovation and collaboration to each project. The company has earned an enviable reputation for delivering high quality, cost effective hospital design, build and



Niagara Health System,
St. Catharines, Ontario



Humber River Regional Hospital

retrofit projects - on time and on budget.

“Each hospital we’ve worked on has had different goals,” explained CEO Bill Kurtin. “Some have been more focused on direct patient care. Some have focused on the balance between operational efficiencies, automation and patient care. In every project we examine the goals, the technologies available and the long term technological and industry trends, and provide a solution that anticipates future developments. Then, at a later stage the hospital will be able to add new components to the advanced infrastructure we have installed without major cost and client care impacts – this is known as future-proof.”

The Niagara Health System’s (NHS) new \$759 million hospital in St Catharines is an example of this. Due for completion in March 2013, NHS will replace two aging and inefficient facilities characterised by high running costs. Plan Group’s challenge was to build an infrastructure that could deliver operational efficiencies, reduce building and running costs, and support technology updates in the future.

Working in collaboration across the project, Plan Group’s engineers and skilled trades people designed a converged communications network based on a wireless

distributor antenna system. It will be the first of its kind in Canada and will handle all the hospital’s data and communications needs over a single system, from medical records and data retrieval through to safety systems and telecommunications. Moreover, when the medical technology requires updating in the future, the infrastructure will be there to support it.

Another exciting project underway is

Humber River Regional Hospital (HRRH). HRRH is a vast \$1.75 billion 656-bed project in Toronto which broke ground in December 2011 and will take just under four years to complete. The health authority’s target was to go lean, green and digital, creating the hospital of the future. When completed, HRRH will be North America’s first completely digital hospital with many fully automated systems, such as driverless guided vehicles for delivering supplies throughout the hospital, and a fully automated pharmacy equipped with pill picking technology.

**\$759
MILLION**

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**Niagara Health System’s
new hospital in
St Catharines**

One of the hospital’s aims was to operate a borderless or wall-less healthcare service, making information available exactly where and when it is required and updating medical records from any interface where change occurs. The staff can then make timely clinical decisions, take therapeutic actions and manage patient care from any location in the hospital.

The system has wider implications too. “Patients, for example, can check into the hospital at any one of the portals of care kiosks, located within the hospital. The systems are interoperable and can track the

**“THE SYSTEM TRACKS THE PATIENT
THROUGH EVERY STEP OF EXAMINATION
AND TREATMENT”**



Inside the Humber River Regional Hospital

“WE ARE ABLE TO PROVIDE ALL CONSTRUCTION SERVICES THROUGH A SINGLE POINT OF CONTACT”

patient through every step of examination and treatment. Nurses can identify the patient’s location; a dashboard displays the availability and status of beds and so on. Bedside terminals provide an entertainment and control system that even allows patients to order food, set the environment in their rooms and have video calls with the nursing staff,” said Glen Landry, Managing Director, Technology. “This makes processing time so

much faster and more efficient. Healthcare becomes a much better experience for the patient, as the caregivers have more time to spend with their patients.”

Plan Group’s business model and ethos of innovation and collaboration make all this possible. Headquartered in Toronto and with satellite offices in Ottawa, Montreal, Vancouver, Barbados and the Bahamas, Plan Group delivers design,

construction, retrofit and maintenance services for a wide range of sectors. As well as the healthcare sector, Plan Group operates in data centre construction where reliability is absolutely essential, financial institutions, universities and colleges, the nuclear industry, transportation, sports, hotels and entertainment complexes and more.

Plan Group is structured around six operational disciplines: Electrical, Mechanical, Structured Cabling, Technology, Proactive Maintenance, and finally, Life Safety and Building Systems. “Our business model is one of collaboration, both internally and with our customer. Therefore we don’t think of each of these as separate divisions but rather as business

units that work closely together,” Kurtin explained. “We are then able to provide all construction services through a single point of contact.”

Collaboration is written into Plan Group’s DNA. A design team comprising engineers from each of the disciplines works closely with the architect, the contractor, the end user and other companies in the project, to define and explore the project’s aims and challenges, and then design, present and validate the best possible solution.

“Of course, there is never only one way of doing things,” Kurtin cautioned. “The solution we develop is dependent on the project, on the issues, and on the customer. We have a wealth of knowledge, expertise and experience from the other

sectors in which we work, and we're able to bring ideas from one sector and adapt them to another."

All Plan Group's business processes are documented and continuously updated and improved. The initial project exploration stage, for example, is known as the Pursuit phase. There is then a process for designing and developing the solution, and another called the Project Management phase that defines the process for executing the project.

Alongside collaboration, innovation is fundamental to Plan Group's success, and has been nurtured

throughout the company's 57 year history. Long-term decisions are based on continuous analysis of the industry, its future needs and technologies. "We are continuously evaluating how the industry is evolving so that we can acquire the necessary knowledge, technology and skills." Kurtin says, "With our experience and insights, we endeavour to see around corners."

The ethos of forward planning began in 1955 when the company was founded. Starting as an electrical contractor the company expanded first into structured cabling

1955

Year Plan Group was founded

"WE ARE CONTINUOUSLY EVALUATING HOW THE INDUSTRY IS EVOLVING SO THAT WE CAN ACQUIRE THE NECESSARY KNOWLEDGE, TECHNOLOGY AND SKILLS"

and then into mechanical contracting, building safety, automation and control, and communication systems, and its most recent diversification has been into new technologies. At each stage of development, new disciplines have been added to provide the knowledge and capabilities required for future market needs.

"Years ago, for example, we realised that

the only way to handle the huge amounts of information required by the building and communications systems of the future would be to digitise them," Kurtin continued. "As a result, we were the first to bring digital systems into Canada." Perhaps the best known digital project the company has worked on was the conversion of Canada's largest airport, Toronto Pearson International, in 2000.

Acquiring and utilising the latest technologies is the remit of Glen Landry. "We work with all the major manufacturers to get a current sense of their capabilities as well as the roadmaps of where they're going with their R&D investment," he explained. "Our role in construction projects then involves solving problems for our clients using our wealth of skill and knowledge."

Continuous improvement is a way of life. All members of staff are expected to look for new and better ways of working. Improvements are then rolled out throughout the company, and when streamlined processes are linked with technological innovation enormous efficiency gains can be achieved. In the past, for example, it would have taken a workman a week or two to lay out a complex plan of raceways (conduits for cabling



Pearson International Airport, Toronto, Ontario



Pearson International Airport

systems which are then buried in concrete) on a floor space of 20,000 sq ft. Today, with CAD designs produced in-house and sent to the building site in digitised format the same workman can lay the plan out in just a day and a half using GPS devices. “That’s an example of innovation in the field. And we teach and expect all our CAD operators, engineers and field staff to innovate in this way,” Kurtin said.

It takes a certain type of person to thrive and perform well in such a constantly changing and personally demanding environment, and Plan Group acknowledges that in its recruitment process. “University doesn’t necessarily make a smart person,” Kurtin continued. “That’s down to the basic fabric of the person, so we are always looking for freethinking, forward thinking individuals. They will be the future leaders of our company.”

Summing up the company’s achievements so far, Kurtin said: “We have successfully bridged the gap between bricks and mortar contracting and technology contracting, bringing together all the disciplines into a single delivery process. We have made a huge investment in people, intellectual property, processes and project management. It’s been a long process and we are always working to improve.” **BE**

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