Humber River Hospital

A large Canadian medical facility relies on the Stratus[®] everRun[®] downtime prevention solution for always-on video security management

Humber River Hospital is one of Canada's largest acute care hospitals, serving a catchment area of more than 850,000 people in the northwest Greater Toronto Area. North America's first fully digital medical facility, Humber River Hospital leverages the latest technology to deliver a seamless, paperless, and connected experience for patients, staff, and clinicians. With a capacity of 656 acute inpatient beds, including 48 critical care beds, the hospital has 3,400 staff, approximately 600 physicians with privileges, and over 1,000 volunteers who are focused on patient satisfaction. The hospital has formal affiliations with the University of Toronto and Queen's University Medical Schools, A number of Humber River's programs and services have been, and remain, recognized provincially, nationally, and internationally.

The challenge

Seeking to move beyond the limitations of aging technology and building infrastructure, Humber River Hospital opened a new state-of-the-art facility at Keele Street and Wilson Avenue in October 2015. The culmination of 15 years of planning, the facility showcases the hospital's commitment to cutting-edge technology and innovation as well as its dedication to providing high-quality care and an exceptional patient experience. In order to protect the hospital's patients, staff, and property, facility plans included installation of a best-in-class video security system across the healthcare complex.





Round-the-clock video monitoring is essential in a hospital setting to ensure safety, deter and investigate criminal activities, and expedite responses in code yellow and code amber situations. Recognizing this need for constant vigilance, the consultant who prepared the hospital's security system specifications included a requirement for no more than one minute of downtime per year.

Johnson Controls won the contract to commission and install the security systems according to the hospital's predefined specifications. The contract stipulated that Johnson Controls would face significant penalties in the event that the security systems were down for more than 60 seconds per year. Therefore, the pressure was one to select the right video surveillance management solution and find a way to keep it up and running continuously.



The solution

Johnson Controls selected Milestone's Xprotect® Professional Series video surveillance management system to provide a complete visual overview of the entire hospital complex, enabling security staff to monitor the facilities and respond to any incidents with optimal speed and efficiency. But even the best security system can do its job only if it is continuously available. Milestone Systems certified Stratus everRun as the only supported redundant system solution with zero application downtime. This certification, combined with successful implementations at other customer sites, led Johnson Controls to choose everRun Enterprise to meet Humber River Hospital's requirement for five nines of availability.

While the new hospital was still under construction, Johnson Controls installed and tested the everRun systems running the Xprotect applications. everRun's software-based solution pairs the physical resources in two servers to create a single virtual machine that keeps running in cases where a failure does occur in either server. The entire Xprotect application environment, including data in memory, is replicated by everRun, ensuring that the video security system continues to run without interruption or data loss. If a hardware component fails, everRun substitutes the healthy component from the second system until the failed component is repaired or replaced.

Following successful testing, Johnson Controls implemented three identical everRun systems running the Milestone Xprotect video management software as part of a complete, integrated security solution at Humber River Hospital's new leading-edge healthcare complex.

The results

Since the new Humber River Hospital site became fully operational in 2015, the three everRun redundant server systems running three instances of the Xprotect video surveillance management applications have been continuously available.

"The systems have been running with zero downtime since their deployment," said Mike Orrico, Security/Emergency Preparedness/Traffic Demand Management at Humber River Hospital. "They have been performing perfectly."

The everRun solution also enables the hospital to realize the value of continuously available applications without requiring changes to its current and planned infrastructure or modifications to existing configurations and policies.

"We wanted a solution that would not add complexity or require extensive training for our system administrators," added Orrico. "Stratus everRun allowed us to quickly implement continuously available platforms on standard Windows[®] servers with built-in virtualization and no application modifications."

"Humber River Hospital is very pleased with our Stratus everRun servers. They provide the level of redundancy and reliability we require in a simple-to-use Windows-based solution"

Mike Orrico

Security /Emergency Preparedness/Traffic Demand Management Humber River Hospital



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