GDI AINSWORTH

CASE STUDY

From Single Retrofit to System-Wide Intelligence

How GDI Ainsworth supported Vancouver General Hospital's evolving building systems for over 25-years without disrupting care

Project Details

Location
Vancouver, Canada

Number of Buildings
5

System Implemented
Delta Controls–based Building Management System (BMS), including HVAC, lighting, fire alarm monitoring, airflow and smoke damper control, and system upgrades (V2 to V3, Triteck controllers)

Project Goal
Continuously modernize and expand building systems while maintaining full hospital operations and prioritizing patient comfort

Project Duration
Ongoing since 1987 (over 25 years)

Impact at a Glance

- Supported a **25+** year client partnership with one of Canada's largest hospitals
- Delivered **35,000+** BMS data points across five buildings
- Completed system upgrades and retrofits with little to no downtime in a fully occupied hospital
- Enabled continuous modernization of HVAC, lighting, and life-safety systems

Challenge

Vancouver General Hospital is the largest hospital in Metro Vancouver and operates 24/7 with no tolerance for system downtime.

What began as a single retrofit project expanded over time into a highly complex, multi-building BMS environment with more than 500 zones and over 40 panels.

Each upgrade, retrofit, or new installation came with unique scopes, compressed timelines, and the critical requirement that patient comfort and safety never be compromised.

Methodology

Adopted a long-term, relationship-driven approach to support ongoing system evolution at a fully operational hospital

Phased upgrades and retrofits to minimize disruption and avoid downtime in occupied clinical spaces

Executed system enhancements incrementally while maintaining live operations

Maintained close collaboration with hospital facilities teams to align schedules, priorities, and safety requirements

Planned and delivered projects with patient comfort and life-safety considerations as top priorities

Solution

- Retrofit of legacy pneumatic control systems
- Design and implementation of a centralized BMS for hospital-wide monitoring
- Integration of fire alarm monitoring with airflow and smoke damper control
- Deployment of Delta Controls platforms across multiple system generations
- Execution of V2 to V3 Delta system upgrades
- Installation of Triteck controllers for advanced system integration
- Expansion from a single project to over 40 panels and 500 zones
- Installation of 35,000+ BMS data points across HVAC and lighting systems
- Continuous system upgrades to maintain performance, safety, and reliability
- Careful scheduling and execution to ensure zero disruption to patient care

The Ripple Effect

- **Strengthened a long-term partnership built on trust, technical excellence, and reliability**
- **Provided a scalable BMS foundation capable of supporting future expansions and technology upgrades**