

Project Profile

Infinity and Buffalo Sabres Team Up for Energy Savings in New Arena



Because Infinity is fully automated and programmable, it takes the guesswork out of energy conservation."

—Dan DiPofi
Sabres' Executive
Vice President of
Sports and Arena
Operations

One of the finest sports and entertainment complexes in North America opened its doors in September, 1996. The \$127.5 million *Marine Midland Arena* in Buffalo, New York is the new home of the *Buffalo Sabres* NHL hockey team, the Arena's owner.

The arena is nothing short of spectacular—the 700,000 square feet (65,000m²) facility features 18,595 seats on four levels; 80 luxury private upper-level club suites; banquet facilities with seating for 800; an eight-sided Sony JumboTron™ scoreboard; an 1,100 space attached parking garage; and a 200' x 85' (61m x 26m) ice surface. In addition to the *Sabres*, the *Marine Midland Arena* also hosts the *Buffalo Bandits* Major Indoor Lacrosse League, the *Buffalo Blizzard* National Professional Soccer League, and numerous college basketball, concerts, ice shows, circus acts, and other family events.

Andover Controls Representative, *U&S Services, Inc.*, Tonawanda, New York, was awarded the contract for the Arena's building automation system after a lengthy "plan and spec" process.

An Andover Controls *Infinity* system provides temperature and humidity control for the entire facility, including the general seating area, staging areas, and the Harbour Club restaurant. The ventilation in the general seating area alone is controlled by eight AHUs, each producing 50,000 cfm (24,000 liters per sec.). In addition, each of the 80 luxury club suites has its own separate VAV controller. As hockey fans and players alike can attest to, *precise* temperature and humidity control is key in any ice arena to prevent fog formation over the rink. In fact, even *Infinity* must play by NHL rules! On Game Day, a temperature and humidity report for the rink area is printed out by the system as required by league regulations.

Russ Stuber, President of *U&S Services*, and Randy Urschel, Arena Project Manager, explain that *Infinity* also plays a major role in the Arena's elaborate fire/smoke control scheme. In the event of a fire, custom-programmed smoke control sequences will move dampers and control fans to exchange 400,000 cfm (19,000 liters per sec.) of air in the general seating area. The pressure differential created purges the smoke from the exit walkways—providing the longer egress time needed to safely evacuate 20,000 people.

Infinity also monitors the CO² levels, voltage surges, and power usage in the Arena. The system monitors and tracks KW and KWH for global energy conservation purposes and uses this data to calculate operating costs for each scheduled event in the Arena.

U & S's Stuber and Urschel attend monthly meetings with *Buffalo Sabres* management and representatives from the local utility companies to discuss energy usage, utility costs, and ways the Arena can become more energy efficient. According to Dan DiPofi, *Sabres'* Executive Vice President of Sports and Arena Operations, "With an arena of this size, utility costs are a significant part of our operating budget. Anything we can do to minimize our utility costs helps our profitability. Because *Infinity* is fully automated and programmable, it takes the guesswork out of energy conservation."

Stuber adds that several new ECMs (Energy Conservation Measures) have been developed as a result of these monthly meetings with the *Sabres* organization. For example, recently an *Infinity* LCX 890 controller was added to perform demand limiting control in the Arena parking garage. Upcoming plans include installing a separate boiler to more efficiently heat the water for the Zamboni[®] Ice Resurfacer.



The *Buffalo Sabres' Marine Midland Arena* was designed by architect Ellerbe Beckett to be a model of accessibility, comfort, and convenience for the 21st century and to ensure audiences at each event the most exciting and enjoyable experience possible. The *Andover Infinity* building automation system is playing a major role in helping the *Buffalo Sabres* score this goal.



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PROJECT AT A GLANCE:

Project Type:
HVAC/Energy Management

Project Name:
Marine Midland Arena

Location:
Buffalo, New York

Market Segment:
Sports/Entertainment

Number of Buildings:
1

Total Area:
700,000 sq. ft (65,000m²)

Andover Equipment Installed:
2 - CX 9001s
1 - SX 8000 workstation
27 - LCX 810s
4 - TCX 851s
9 - LCX 800s
246 - TCX 860s
1 - LCX 890

Network:
ARCNet

Applications:
Temperature and humidity control
Global energy monitoring
and tracking
Power monitoring
Transient voltage monitoring
CO² monitoring
Fire/smoke control
Lighting control

Total System Points:
1800

Andover Controls Representative:
U&S Services, Inc.