THE INTELLIGENT AIRPORT IS AHEAD OF SCHEDULE

MSP Airport integrates building systems with Honeywell to optimize efficiency and growth

Case Study

"With the flexibility of our open protocol, we can use any manufacturer of controllers, installed by any contractor and have it function seamlessly on the dashboard."

Steve Shuppert
Chief Engineer
Metropolitan Airports Commission

Honeywell

The Minneapolis-St. Paul International Airport (MSP) is one of the world's most on-time major airports, ranking #1 in 2018. And with 3 million square feet of terminals, keeping building operations consistent is a challenge. So when MSP needed a more effective platform, Honeywell proved to be just the ticket.

THE GOALS

Integrate diverse systems into one automated platform

Eliminate proprietary systems to reduce costs

Optimize performance and energy

Automate lighting and ventilation control with occupancy sensors

Implement metering for tenant billing

THE CHALLENGE

With 39 million passengers per year and more than 90 buildings, MSP is like a small city. And as it's grown, it has become imperative to operate with greater automation and insight based on real-time data – needs that were being impaired by the burdens of disparate, proprietary systems and their costs.

The Metropolitan Airports Commission (MAC), which owns and operates MSP, concluded that a major course correction was needed: Integrate the entire complex into one intelligent airport. From a single platform, systems like HVAC, lighting, and plumbing could be integrated to optimize health, safety, efficiency, and cost. Open architecture can also reduce construction and maintenance costs via competitive bidding. But did such a platform exist?

THE SOLUTION

As soon as the MAC was introduced to Honeywell's Niagara Framework™, they saw clear skies. Niagara is an open operating system that can connect nearly any system or device and control it from a web browser.

By using a WEBs Spyder Controller (a compact Niagara-based computer that's automation controller, network manager, and protocol gateway all in one), MSP could also keep its existing sensors, valves, dampers, and wiring.

From this foundation, MSP could seek competitive bids for construction and maintenance – finally freeing them from costly proprietary vendors.

A five-year deployment was planned, but it was soon clear that investments would pay back in under four years: Bidding had significantly reduced service costs, and energy savings likewise exceeded expectations. The system also proved so reliable and easy to use that other departments asked to join, and the scope was soon expanded.

In short, MSP has achieved its goals: a consistently high level of coordinated efficiency. They've integrated all critical buildings for customized monitoring of health, safety, comfort, and energy use, with dashboard views and metrics to maintain safe, secure operations.That's one intelligent airport – and an ideal foundation for future growth.

THE RESULTS

An intelligent airport: Automation and control on one open platform

Reduced construction costs by more than 25%

Reduced maintenance costs by more than 50%

Energy savings have exceeded expectations

Precision metering to simplify tenant billing

Solution expanded based on rapid results

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