INSIGHTS

Allagash Brewing Company optimizes temperature control to deliver a superior product

Allagash Brewing Company
Portland, ME, USA

Wireless controllers help keep watch over critical storage areas.

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ALLAGASH BREWING COMPANY

Allagash Brewing Company of Portland, Maine is one of the premier craft brewers in the United States. Founded in 1995 to hand-craft "the best Belgian-inspired beers in the world," the company produces more than a dozen year-round and seasonal beers that are sold around the country.

Temperature control is critical for quality brewing, and the company had been using Schneider Electric controllers in its plant for some time to monitor temperatures and control chillers and boilers. But in the company's remote warehouse just four miles away, where beer is stored while awaiting shipment, simple thermostats were still in use.

"Our workers are well-trained and they kept an eye on the temperatures all the time," said Seán Diffley, plant engineer at Allagash Brewing Company. "But we had no way of monitoring the temperatures when no one was on duty." Furthermore, Allagash wanted the ability to set up alerts and alarms, track energy use over time, and integrate the temperature controls with other systems so they could more effectively manage their facilities.

In early 2014 the company decided to replace the thermostats with advanced controllers that could integrate with their other environmental systems and provide improved monitoring and control of warehouse temperatures.

"Superior quality is part of our core mission," said Diffley, "and we knew that upgrading our environmental control technology would help us fulfill that mission."

Calling Maine Controls

To handle the project, Allagash called in Schneider Electric trained and certified Master EcoXpert™, Maine Controls, which had installed the HVAC control systems at the company's brewery plant in Portland. Maine Controls is a companion company

Goal

Enable improved monitoring and management of temperature control to optimize the quality of the brew process.

Solution

Integration of SE7000 wireless room controllers and other environmental control technologies for optimized control, supervision, and network management.

Story

Allagash Brewing Company is one of the premier craft brewers in the United States and temperature control is critical for the quality of its brews.

Results

- Optimized temperature control
- Via a single interface to an integrated system
- Monitor and controls of temperatures in offices, the plant and the warehouse
- Improved energy efficiency and cost savings
- Automated temperature control, trend logging and alarm notifications

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of Mechanical Services and a leading provider of energy management systems in the state.

Like many warehouses, Allagash's facility is comprised of large rooms and very high ceilings. The refrigerated room is kept at between 58 and 62 degrees Fahrenheit, while the warm room is maintained at 72 degrees Fahrenheit.

"The warehouse at Allagash presented a special challenge," said Scott Jameson, account representative for Maine Controls. "We've typically installed Schneider Electric I/A Series controllers, but the warehouse ceiling was about 40 feet high. It wasn't practical or cost-effective to run wires through the building."

So instead, Maine Controls recommended using Schneider Electric's SE7600 wireless room controllers. These integrated controllers bridge the gap between stand-alone sensors and intelligent building management systems, delivering simplified automation and communications to a broad range of existing and new structures.

"We like the Schneider Electric controllers because they are open and interoperable, fully supporting standards like LonWorks®, BACnet®, and TCP/IP," said Jameson. "The SE7600 controllers extend that interoperability into the wireless world with their ZigBee support."

Maine Controls installed SE7600 controllers in both the refrigerated and warm rooms. The controllers monitor the AC equipment and are integrated into Schneider Electric's ENC-520 Enterprise Network Controller, which provides integrated control, supervision, and network management solutions for LonWorks, BACnet MS/TP, and Modbus® controllers.

Using Schneider Electric's Enterprise Network Server, Maine Controls created a custom-designed graphical interface for Allagash which features easily understood drag-and-drop graphic representations of common control algorithms and functions, and easy-to-use "wizards" that automate controller configurations. The system's graphical views can be accessed using any standard Web browser.

"It took only a few days to install the controllers, and it's a completely seamless solution," said Allagash's Diffley. "If we had known how easy it would be, we probably would have done it sooner!"

Results the company can see

Just a few months earlier, Allagash had only simplistic thermostats in their warehouse, and they relied on employees to manually check the temperature. Now Allagash is trend-logging temperatures so they can see what's happening over time. They've also set alarms that contact personnel when the temperatures are out of range.

Diffley said the company loves the new capabilities because it can respond quickly to a problem. "If we have an issue with temperature, now we know it right away," said Diffley. "Storage

significant improvement in staff productivity

annual reduction in energy costs

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- Scott Jameson
Account Representative
Maine Controls

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temperatures can be just as an important as brewing temperatures. We see this upgrade as another essential step in making the world's finest Belgian-inspired beers."

Best of all, according to Diffley, managers can see what's happening in their facilities, day or night: "I get alarms sent straight to my phone."

Expanding a solution that works

Once Allagash saw how easy and effective the warehouse monitoring solution was, they asked Maine Controls to replace the thermostats in the company's offices, which are part of the brewing plant in Portland.

"We installed four more SE7600 units in the office areas, controlling rooftop units," said Jameson. These were tied into the network and the Web interface, giving Allagash a single management view of all facilities.

"One of the reasons we work exclusively with Schneider Electric controllers is their flexibility and scalability. We know we are providing our customers with a solution not just for today's challenge, but tomorrow's as well."

Allagash Brewing Company now has a single, integrated system for monitoring and controlling temperatures in all their facilities, from offices to plant to warehouse. Maine Controls was even able to integrate old chillers and boilers that use a different network protocol, thanks to the interoperability of Schneider Electric solutions.

"Through one interface, we can see everything that's happening, in any location," said Diffley. "This will help us fulfill our mission of brewing the finest beers available."

Added Diffley: "We're just beginning to understand how we can use this integrated view of operations to reduce energy use and, most importantly, improve quality."

About Allagash Brewing Company

Allagash was founded by Rob Tod in 1995, and has grown from a one-man operation into one of the Top 50 Craft Breweries in U.S. (by sales volume) and a spot on Maine's Best Places to Work list in 2013. Allagash brews Belgian inspired beers and is best known for its flagship beer, Allagash White. Allagash has won many national and international awards in its 19 years, and is viewed as a leader of innovative brewing techniques in the craft beer world. Being environmentally and socially responsible is a core value at Allagash, where they are constantly working to lessen the environmental impact of their operations. Allagash distributes beer in 17 states and DC.

www.allagash.com

About Schneider Electric

A global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Utilities & Infrastructures, Industries & Machine Manufacturers, Non-residential Buildings, Data Centers & Networks and the Residential sector. Focused on making energy safe, reliable, efficient, productive and green, the Group's 150,000-plus employees achieved sales of 24 billion euros in 2013, through an active commitment to helping individuals and organizations make the most of their energy.

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> *Plant Engineer*
> *Allagash Brewing Company*

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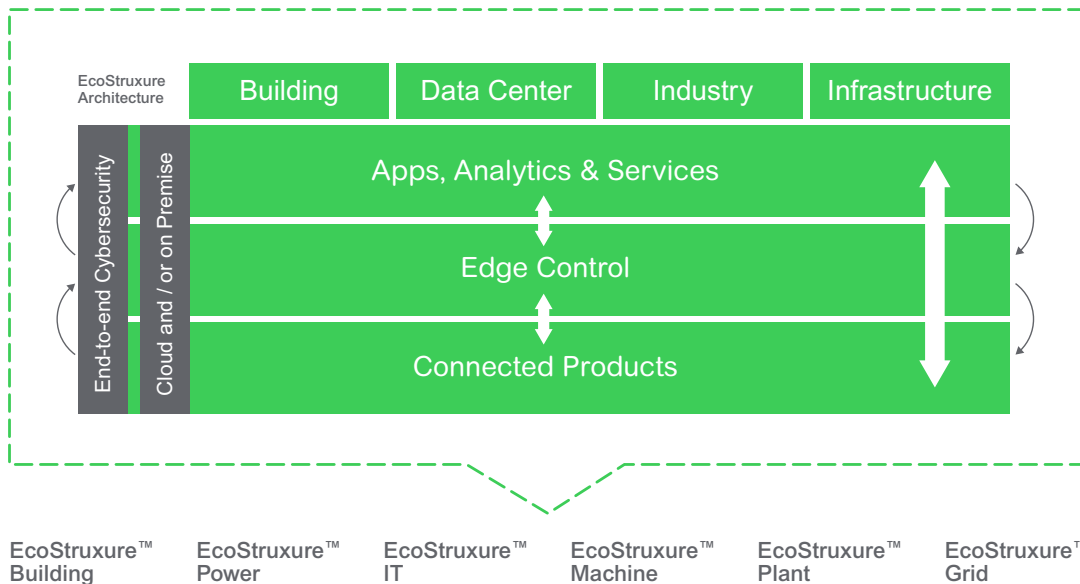## Innovation At Every Level

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