Success Story

Honeywell

OneWireless™ Quick-Start Implementation Reduces Costs and Improves Reliability at Shire Biopharmaceuticals Plant

"Due to the intense scheduling pressures to respond to new market opportunities, we relied on Honeywell to pool resources and provide fast responses to our needs. They really came through for us and they were willing to do whatever it took to succeed."

Lloyd Vallance, Senior Process Control Engineer II, Shire

Benefits

Shire Plc., a fast-growing speciality biopharmaceutical company, received FDA-approval for a new pharmaceutical product and had to act quickly to build a plant to manufacture the new offering. Over several months, Shire evaluated automation vendors for the project dubbed "Atlas." Specifically, they were looking for a partner with depth of experience in the pharmaceutical industry, the ability to quickly scale up project execution capabilities, and proven cutting edge technical capabilities, including controller-based batch experience.

Shire selected Honeywell for the technical capabilities of its control systems, including the Honeywell OneWireless™ Network to optimize plant productivity and reliability, and to get the manufacturing operation up and running quickly. Honeywell's OneWireless Network is a rugged, industrial-grade network composed of industrial wireless access points, called multinodes, that self-discover to create a redundant, self-healing mesh network. The wireless network supports Wi-Fi devices and industrial I/O devices simultaneously.

Honeywell's experience in the pharmaceutical industry and wireless expertise enabled Shire to start production in a rapid timeframe in order to deliver products in their new market. Shire was able to very quickly deploy 23 mobile operator stations without waiting for custom enclosures or the completion of the plant itself.

In addition to the fast implementation, Shire achieved many benefits from OneWireless, including:

- Ability to travel anywhere in the plant with the flexibility of wireless vs. hard-wired fixed clients
- Reduced maintenance compared to wired alternative
- Creation of a wireless infrastructure that follows the ISA100.11a standard for future projects
- Cost savings due to reducing personnel required to commission wiring and start-up
- Increased flexibility allowing the plant to change direction quickly and easily

One-Wireless Operator Stations provide remote access to process equipment and reduce the number of user interfaces in sterile process areas.

Background

Shire Plc. is a rapidly growing global biopharmaceutical company. Its strategic goal is to become the leading specialty biopharmaceutical company dedicated to meeting the needs of the specialist physician. Shire focuses its business on attention deficit hyperactivity disorder (ADHD), human genetic therapies (HGT) and gastrointestinal (GI) diseases, as well as opportunities in other therapeutic areas to the extent they arise through acquisitions.

With major operations in Basingstoke, UK; Wayne, PA; and Lexington, MA, and a network of offices and distribution channels throughout Europe, South America, Canada, and the Pacific Rim, Shire employs some 4,000 people in more than 25 countries.

Challenge

At new plants such as Shire's, reducing costs and accelerating schedules are ever-present challenges. After receiving FDA approval, Shire was pressed to get its new pharmaceutical products into production as quickly as possible.

"We looked for ways to economize our facility and still maintain the rapid product schedules necessary to get these products out the door," said Lloyd Vallance, Senior Process Control Engineer II, Shire. "Several alternatives came to mind, but we discovered wireless stations would save money and help increase our economies of scale in more ways than we imagined."

Solution

Shire selected Honeywell's One Wireless network solution to help reduce costs, yet maintain access to reliable data in a safe, cost-effective manner. Initially, Shire selected wireless stations because they were a much lower cost alternative to the more traditional hardened washdown enclosures. Wirelss stations also allowed Shire to reduce the number stations requirered for ongoing plant operation. A manufacturing area containing eight operating units overseen by two operators would typically include a hardened station at each piece of equipment, which would result in eight large stations. Using wireless technology, Shire reduced this to two stations – saving computer and enclosure costs, software licensing fees, and the frequently overlooked annual operating expenses for a business computer, which can be 3-5 times the hardware cost of the computer.

Once parts of the plant were ready to begin commissioning, Shire realized several unintended benefits from employing Honeywell OneWireless. These included:

Faster Staff Scale-up. When the schedule accelerated and things needed to get done faster, the only way to do it was to increase staff. Since mobile stations were off-the-shelf components, there was no delivery lag for hardened or custom enclosures to be fabricated.

Resources Focused on Critical Plant Areas. Honeywell OneWireless enabled Shire to more effectively focus resources on critical plant areas and quickly adapt and change operating and commisioning priorities. This allowed schedules to be compressed as required by market demands.

Reduced Personnel Requirements. With the OneWireless solution, fewer personnel were needed for field wiring verification and commisioning. Putting a wireless operator station into the hands of an electrical technician allowed control loops and wiring to be efficiently commissioned. It also eliminated radio chatter between the electrician and the control room. One person could have the wireless station right next to the panel or device being commissioned.

The wireless portion of the Shire project included 23 wireless stations and a OneWireless Network mesh. Key to the project's success was the ability to ramp up and change directions quickly. "Due to the intense scheduling pressues to respond to new market opportunities, we relied on Honeywell to pool resources. They were willing to do whatever it took to succeed. Our project was up and running on time, and OneWireless has proven to be a highly reliable system," commented Vallance.

In addition, Honeywell OneWireless helped Shire optimize plant productivity and reliability. The system is flexible and scalable to adapt to the company's changing needs.

"The bottom line was that Shire saved money over the more traditional wired options, but more importantly, we saved precious implementation time by enabling our workers to travel anywhere in the plant and still have access to secure, real-time data in order to make fast, reliable decisions that helped get our products into the hands of consumers where they need it the most," concluded Vallance.

More Information

For more information on Honeywell OneWireless or any of Honeywell's other Products, Services or Solutions, please visit www.honeywell.com or contact your Honeywell account manager.

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