

BioLab Ensures Water Quality with Opto 22 M2M Systems

nPhase Deploys Opto 22-Nokia Machine-to-Machine Solution for Real-Time Reporting, Service, and Supply Chain Optimization

The Challenge

BioLab Commercial Water is a Georgia-based manufacturer and distributor of water treatment products—both chemicals and equipment—and a subsidiary of the Great Lakes Chemical Company (NYSE: GLK). The company brings its products to market through a network of authorized distributors and service providers.

BioLab wanted to differentiate itself from other chemical manufacturers by establishing a closer link to both its dealer channel and the end consumers of its chemicals. Towards this end, the company began looking for a way to gain real-time visibility into its supply chain and better facilitate the delivery of chemicals to customer locations. At the same time, BioLab was searching for new sources of revenue for both itself and its dealer channel. BioLab believed that by accomplishing all this, it could increase the service levels that its distributors and service providers could provide to end customers. As Steve Clark, Director of BioLab Commercial Water puts it, "Our commercial pool customers asked us to help increase their facilities' operations profitability while simultaneously improving water quality to enhance the swimmers' experience. Besides this, we realized that in order for us to grow as a manufacturer, we needed to offer more than just chemicals; we needed to move ourselves out into the services realm and find ways for our dealers to interact with their customers."

The Solution

BioLab turned to nPhase, a machine-to-machine (M2M) systems integrator that specializes in custom, enterprise-class M2M solutions for monitoring and managing widely dispersed assets. nPhase quickly implemented an action plan for BioLab. In the initial step of this plan, nPhase deployed a wireless M2M communication system based on technologies from Opto 22 and mobile communications leader, Nokia. This M2M system, installed at each pool facility, monitors the pool water and controls chemical dispersion and other equipment. The system also gathers real-time operational data such as pH balance, oxidation reduction potential (ORP) values, chlorine and other chemical levels, and water temperatures.



“Our customers not only have a strong need to improve water quality, but also want assurance that chemical levels are being controlled,” says Clark. “They need to know things like water temperature, status of chemical dosing equipment, and their chemical usage rate. They also need up-to-date reports on sanitizer and pH levels, which are regulated by local health departments.”

The monitoring of the water and equipment is achieved using Opto 22’s SNAP-IT hardware, a packaged, IP-enabled system that uses sensor interfaces to connect to organizations’ remote physical assets and environments. In the BioLab applications, the SNAP-IT system utilizes embedded Nokia mobile technology as the communications component and sends all data back to a network operations center (hosted by nPhase) using the GSM/GPRS-based AT&T Wireless cellular network. At nPhase, the data is aggregated and presented through a secure web portal— accessible from any PC or hand-held WAP-enabled device—to the customer, the dealer, and to BioLab.

nPhase chose a wireless system due to BioLab’s many geographically dispersed customer and dealer locations. “We always knew we needed wireless technology,” says Clark. “Accessibility through PCs was not possible and installing land lines was a major stumbling block due to high costs.”

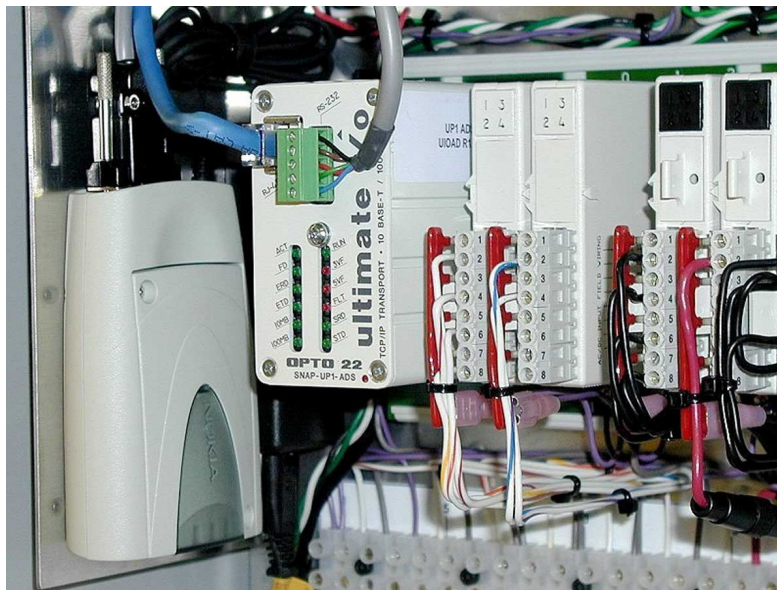
According to Steve Pazol, nPhase President and CEO, the Opto 22 M2M system is ideal because it’s an all-inclusive package that offered the necessary physical connections, communications, and a pre-negotiated rate plan for data transfer. “This allowed us at nPhase to focus on our IT core competencies and decrease implementation times by not having to specify and install a communications infrastructure or seek out best pricing from wireless carriers,” says Pazol.

The Results

The installation of the M2M system gives BioLab real-time access to chemical supply levels at customer, that is, pool owner locations. This helps BioLab plan its chemical production activities back at its factory and better coordinate deliveries and service calls. According to Clark, “We can measure how much material is being used, such as the sanitizer we produce. This allows us to maximize production and delivery schedules, and reduce operating costs.”

BioLab has also developed a new source of revenue for both BioLab dealers and BioLab

corporate by offering a real-time service and notification system to pool owners and facility operators, something few, if any, of its competitors can match. “The BioLab portal is set up for immediate notification of out-of-threshold events and real-time views into operations,” states Pazol. “If levels fall outside of preset limits, an alarm is sent through the



nPhase data center, which routes it to the most appropriate people. Personnel are then dispatched to the site to rectify the problem, whether it be a repair, an equipment failure, or anything else.”

BioLab customers’ new ability to view critical business information at any time of the day or night has also positively impacted other areas of operations. Clark says that having historically archived web-based reports on water quality, chemical usage, and other key operational elements helps reduce or eliminate litigation stemming from liability claims involving their products. These reports also help pool owners comply with regulatory reporting guidelines.

Looking Ahead

After having several Opto 22 M2M systems installed throughout the country in 2003, BioLab expects deployments to continue, even expanding into Mexican and Latin American locations. Extremely pleased with the capabilities of his new system, Clark says Opto 22-based solutions, with names like Nokia and AT&T Wireless behind it, makes those companies the clear leaders in providing M2M solutions. For BioLab, this means the company and its customers have technology that they can trust and use anywhere. “We compared this offering with the other technology out there and these three companies are the clear leaders in this space. What we have is a great deal of confidence in them.”

About Opto 22

Opto 22 manufactures and develops hardware and software products for applications in industrial automation, remote monitoring, and enterprise data acquisition. Using standard, commercially available Internet, networking, and computer technologies, Opto 22’s SNAP systems allow customers to monitor, control, and acquire data from all of the mechanical, electrical, or electronic assets that are key to their business operations. Opto 22’s products and services support automation end users, OEMs, and information technology and operations personnel. founded in 1974 and with over 85 million Opto 22-connected devices deployed worldwide, the company has an established reputation for quality and reliability. Opto 22 products are sold through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at 800-321-OPTO or visit our Web site at www.opto22.com.

