Cognizant delivers smart vending machines to revamp beverage distribution strategy

As soda sales in retail outlets wane, beverage distributors need new strategies to increase profits. The focus has shifted from product innovation to creating an exceptional experience for consumers and retailers.

A U.S.-based multinational food and beverage company wanted to increase the profitability of its soda fountains, coolers and vending machines.

The company’s needs included:
• Avoiding lost sales due to out-of-stock conditions.
• Lowering restocking costs.
• Reducing equipment maintenance costs.
• Preventing theft of coolers and vending machines.
• Gaining more insights about customer behavior to optimize product mix and placement.

AT A GLANCE
A food and beverages company wanted to improve the profitability of its vending equipment by boosting sales and lowering stocking and maintenance costs. The company valued Cognizant’s expertise in program management, supply chains, logistics and the Internet of Things, as well as Cognizant’s experience in the food-and-beverage industry.

Cognizant’s role:
• Managed a multi-vendor effort to build a next-generation equipment network that harnesses IoT.
• Managed the innovation lab to prototype and select new technologies.
• Developed IoT technology, including a big data analytics application, real-time dashboards and software that interprets machine data to generate alerts.
• Migrated the company’s infrastructure to the Microsoft Azure cloud.

Projected outcomes:
• 15% reduction in supply chain costs.*
• 5% savings through reduced equipment theft.**
• 5% revenue increase.*
• 10% to 15% reduction in service and maintenance costs.*

* Results for client’s European division
** Industry average
IoT Transforms Beverage Delivery
Cognizant worked closely with the client to plan a next-generation equipment network that harnesses the power of the IoT. Throughout the day, sensors on the equipment transmit data about operational health, stock levels and customer behavior. Touchscreen soda fountains, for example, record and transmit every tap: ice or no ice, canceled selections, flavor combinations and more.

The Cognizant team managed the equipment vendors, developed the technology to convert machine data to alerts, and tested the smart machines in a lab at the client's headquarters. To lower the cost of storing and analyzing big data, Cognizant engineers migrated the client's servers to the Microsoft Azure cloud.

The smart network debuted with 400 next-generation soda fountains, coolers and interactive vending machines, with a plan to expand to 2,000 dispensers within a year.

Increased Supply Chain Efficiency
The first test site to implement the IoT solution experienced 88% fewer out-of-stock situations than the U.S. average. When supplies run low, the software automatically transmits an order to the warehouse. Automatic orders save store managers the effort of calling the contact center and prevent lost sales due to lack of merchandise. Drivers can restock more locations each day because they already know which locations actually need supplies.

More Effective Marketing
Cognizant also developed big data analytics software and a real-time dashboard with different views for warehouse, marketing and maintenance personnel.

Marketers review purchase histories to customize product assortment and placement. If a certain beverage and snack combination proves popular in a particular region, the two items can be placed near each other to encourage additional purchases. A similar solution in one of the company's European divisions increased sales by 10%.

Cost Savings
Cognizant adapted the equipment software to send alerts when it senses conditions that typically precede problems. Technicians can diagnose issues over the network, eliminating unnecessary service calls. Proactive problem management reduces service and maintenance costs – by 20% at one of the company's European divisions. Repairing problems before equipment stops working also prevents lost sales.

The next-generation network lowers costs further by averting cooler theft. Approximately 3% of coolers are stolen every year in the U.S.; in some countries, the rate is 20%. The company's coolers continuously transmit their location, and security personnel are alerted when equipment is moved.

The Future
The Cognizant team continues to work with the company to capture even more value from the IoT. Current projects include mobile payments and big data analytics to identify purchase trends based on time of day and location.

Learn More
To learn more about Cognizant, visit us at www.cognizant.com/internet-of-things or contact us at internetofthings@cognizant.com.

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