Case Study: IoT/Manufacturing

Modernizing the factory for improved visibility and control

We’re helping a global industrial conglomerate realize its strategic vision by focusing on discrete processes, where implementing digital creates immediate, measurable success for the organization.

Keeping pace in the face of global competition is critical for manufacturers, but enterprise-scale digital projects bring significant risk. Both vision and short-term successes are critical.

Consider the modern factory floor. If you look behind the scenes, you’ll find a range of specialized applications adopted over time, unique to individual operations and oftentimes operating in silos. For all the promise of automated processes and advanced machinery, many manufacturing organizations still face a significant lack of IT and enterprise integration and communication.

This means a lack of real-time visibility and control of on-the-floor workflows at the enterprise level and across the supply chain. And while operational data has historically been difficult to access, analyzing it now takes mere seconds, allowing manufacturers to overcome operational efficiency hurdles. This creates an opportunity for integration, and the means to affect it.

At a Glance
A U.S. manufacturer is modernizing its factory operations to drive increased visibility into production flows and efficiency while optimizing management control and collaboration across the enterprise and through its supply chain.

Outcomes
- Analyzed 800 manufacturing unit systems at multiple facilities and drafted multiple use cases in a single global manufacturing implementation system.
- Designed a single platform for dispersed applications, providing complete management analytics on current production workflows.
- Migrated 12 plants onto new, unified production execution system.

March 2020
Connecting data and analytics

Data lies at the heart of the successful manufacturing service business, creating more efficient operational workflows. Our client had more than 20 separate applications for specific needs, each operating in its own silo and communicating neither with others nor with the company’s ERP system, so it had no real-time visibility into its supply chain or factory workflow problems.

Market drivers in manufacturing demand ever-more efficiency, flexibility and pinpoint accuracy. Our client knew it needed a more agile, responsive approach to boost productivity, one that involved consolidating and aligning applications on the plant floor with its enterprise software.

One floor, one digital brain

Prior to engaging Cognizant, our client was looking at a multi-year migration to a new enterprise manufacturing solution—a costly proposition and a risky one.

Cognizant brought digital integration to the client’s dispersed factory floors—based on our Cognizant OnePlant™ blueprint for implementing a transformative manufacturing execution system (MES). We accelerated its ERP deployment and new manufacturing plant acquisitions into a matter of months. Our strategy enabled the company to achieve its smart factory innovation goals faster, reducing cost and risk.

Integrating operational applications with the ERP system provided the organization unprecedented access to real-time data. By applying a uniform context to manufacturing data, we delivered valuable, actionable manufacturing analytics and additional composite capabilities across multiple processes—including complex event processing, predictive analytics and collaborative workflows.

This allows our client to map common event and service models, predict production pain points, adapt to evolving customer needs and solve problems in real time. Analytics also gives management end-to-end visibility into the supply chain, allowing the company to align plant systems and factory floor applications with the extended enterprise value chain.

Building for the future

Our client has now integrated all its applications, standardized plant operations and incorporated its supply chain into an enterprise-wide manufacturing service business. Its digital platform harmonizes plant and operations processes and improves operational agility. Integrating new products, upgrading designs and rolling out different operations or software applications all are dramatically simplified using Cognizant OnePlant.

Our solution enables faster deployment of the company’s ERP system to its satellite operations with only minimal changes to production operation and shop-floor automation. Our client is succeeding in the face of disruptive change with Cognizant at the helm and digital transformation at the core.

Learn more at www.cognizant.com/iot.