

Customer success story

## **Connected products give a global equipment maker the competitive edge**

Pentair partnered with Cognizant to develop automated sea pen monitoring systems and bring edge-driven productivity to their customers' global industrial brewing facilities.

## Customer challenge

Pentair faced significant challenges in ensuring reliable and cost-effective system operations for their globally distributed customers. Their clients, including sea pen operators and brewery managers, often worked in remote locations where cloud connectivity was inconsistent, and outages were frequent. This posed a serious risk of data loss and elevated transmission costs due to limited bandwidth. Pentair needed a solution that could maintain robustness without relying solely on stable connectivity, catering to the unique demands of their diverse user base.

Adding to their difficulties, Pentair's existing connected systems were custom-built, leading to inefficiencies across the board. These solutions required lengthy development cycles, utilized mismatched technologies, and lacked the flexibility to reuse components or skill sets across different company verticals. This fragmented approach hindered their ability to scale solutions and adapt to opportunities in diverse industries such as aquaculture and brewing. The lack of a standardized technology framework prevented Pentair from maximizing the potential of connected products for their business.

## AWS + Cognizant solution

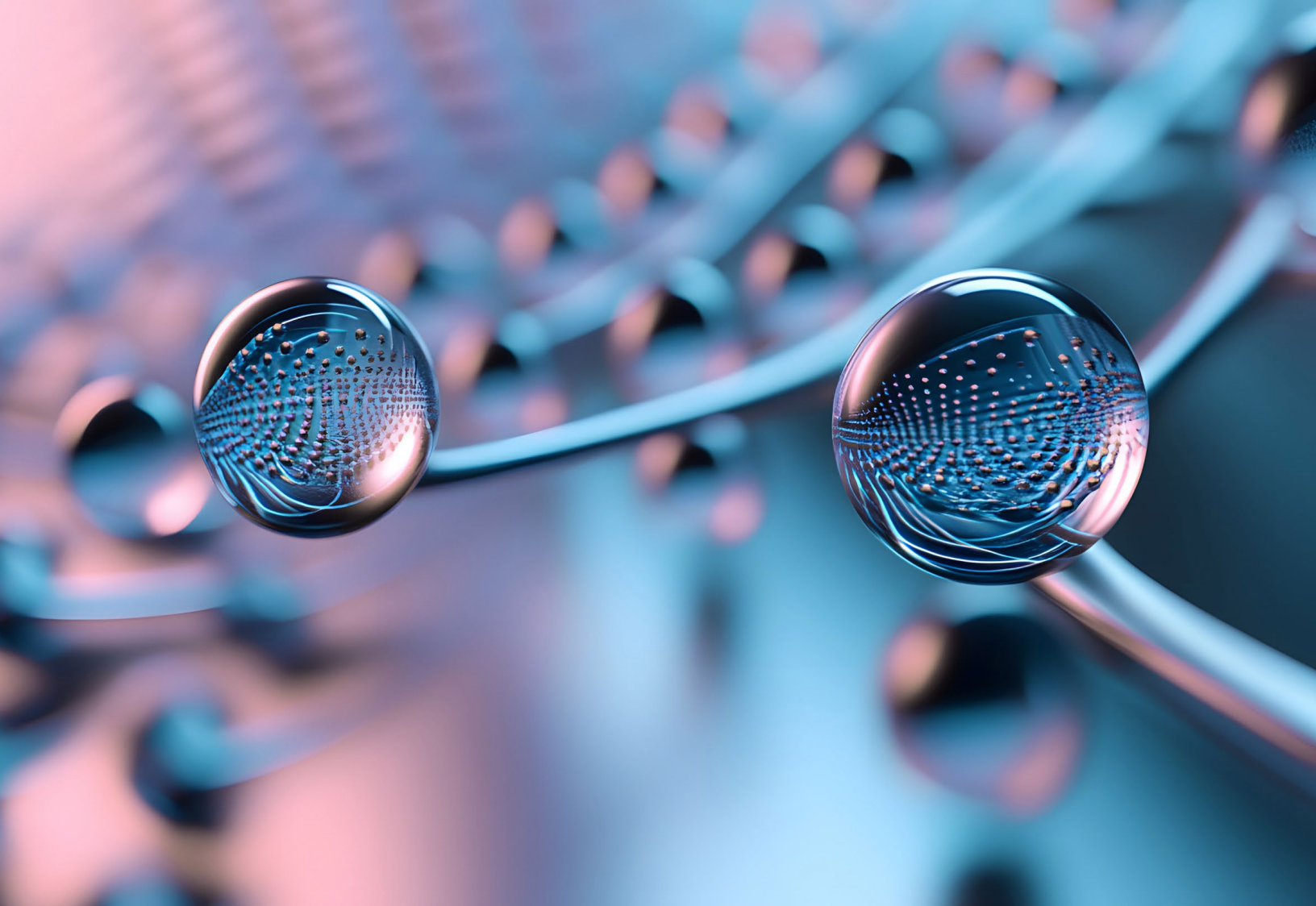
Recognizing the need for a unified and forward-thinking approach, Cognizant helped Pentair establish a standardized set of technologies for developing connected products.

Cognizant developed an advanced IoT-enabled sea pen monitoring solution tailored to enhance Pentair's operational efficiency and production yields. By integrating cutting-edge technology, the solution delivers superior performance, actionable insights and automation, paving the way for optimized production and increased revenue across the value chain. A key highlight of this solution is its reusable and adaptable architecture, designed to function seamlessly across both edge and cloud environments. This flexibility allows Pentair to swiftly roll out new connected solutions while easily incorporating additional services and products. Furthermore, the modernization effort saw the replacement of costly PLC hardware with affordable gateways, significantly reducing expenses while enhancing the functionality of Pentair's Beer Membrane Filtration system.

The solution also includes a common edge platform that strengthens on-premises intelligence and connectivity while ensuring vendor-neutral compatibility with a wide range of facility equipment. Key features such as flexible HMI screens, a local data historian and secure data management ensure robust operations even in the absence of cloud connectivity. The architecture extends to the cloud, enabling enterprise-wide monitoring, seamless integration with machine learning tools and customizable dashboards for multisite management. With its open and scalable design, the system facilitates connectivity for third-party equipment, empowering Pentair to engage in condition-based monitoring and receive timely alerts. This comprehensive approach illustrates Cognizant's ability to merge innovation with practicality, delivering a solution that is both transformative and cost-effective.







## Outcomes/results

Cognizant facilitated a cohesive strategy that aligned Pentair's operations with their aspirations for global competitiveness. This collaboration empowered Pentair to improve water quality systems for breweries and gain an edge in commercial aquaculture—all while overcoming challenges posed by unreliable connectivity and operational inefficiencies.

The solution introduced a modernized architecture that brought multiple benefits. By enabling multisource data collection and aggregation, Pentair gained unified monitoring and analytics capabilities, providing both real-time and historical insights into operations and service issues. This innovation led to elevated productivity and consistent quality, ensuring higher yields through shorter harvest times and a proactive approach to avoiding failure events. Optimized business logic allowed for real-time local monitoring, ensuring operational consistency under varying conditions, and continuous learning loops helped identify bottlenecks and enhance customer operations effectively.

Moreover, Cognizant's solution empowered Pentair to create new revenue opportunities while lowering hardware costs and simplifying infrastructure by leveraging public cloud services. This shift eliminated reliance on proprietary systems, granting Pentair greater control without added complexity. Enhanced customer relationships played a pivotal role, as proactive service efforts fostered confidence and increased equipment sales over time. Through these advancements, Cognizant enabled Pentair to deliver greater value to its customers across various global markets and business divisions, solidifying its position as a leader in innovative solutions.

## About the partner

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. We engineer modern businesses to improve everyday life. Our unique industry-based, consultative approach helps clients transform technology, reimagine processes and transform experiences ensuring businesses remain agile, relevant and ready to run more innovative and efficient enterprises.

With AWS as our partner, we focus on the outcomes that matter most to businesses and underpin our solutions with deep industry experience and market-leading IP. Cognizant brings more than 13,000 AWS-certified professionals, dedicated AWS-certified consultants in 43 countries, hundreds of customer launches and successes and more than 70 transformational blueprints to drive innovation beyond cloud migration.

As a premier consulting partner, Cognizant hold numerous AWS competencies, including AWS Mainframe Migration, AWS SAP, AWS Migration, AWS Financial Services, AWS Healthcare and AWS Life Sciences. Partner programs include AWS Well-Architected, AWS Managed Service Provider, AWS Marketplace Seller, AWS Solution Provider Program and AWS Public Sector Solution Provider.

**13K+**

AWS-certified professionals

**43**

countries worldwide

**70+**

transformational blueprints



Cognizant (Nasdaq-100: CTSH) engineers modern businesses. We help our clients modernize technology, reimagine processes and transform experiences so they can stay ahead in our fast-changing world. Together, we're improving everyday life. See how at [www.cognizant.com](http://www.cognizant.com) or [@Cognizant](https://twitter.com/Cognizant).

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