

/IOTCONNECT®

Avnet's Smart Factory Solution powered by IoT and AI

Challenges

Industrial automation and smart manufacturing of the future

Avnet's Smart Factory addresses several key challenges faced by manufacturers. Traditional systems often fail to provide a centralized, live view of the shop floor, making real-time monitoring difficult. Additionally, older systems lack the operational intelligence required to optimize production processes and improve efficiency.

Manufacturers also struggle with connecting multiple production lines and machines, leading to fragmented data and inefficiencies. Acquiring data at different stages of production from various sources can be complex and time-consuming with outdated systems. Furthermore, legacy systems often lack capabilities like remote monitoring, edge analytics, predictive maintenance, and digital twin technology, which are essential for modern manufacturing.

Avnet /IOTCONNECT Solution

Begin your industrial IoT journey with our smart production line monitoring solution

Avnet's Smart Factory is a smart production line monitoring solution powered by AI and IoT technologies, which enables you to monitor everything on the shop floor from a centralized, live dashboard. Our industrial automation solution involves highly trained machine learning algorithms that can predict machine failures and brings higher operational intelligence that your legacy system was not able to perform.

Our Industry 4.0 solution enables manufacturers to connect multiple production lines and machines, acquire data at different stages of production from several disparate sources and develop capabilities like remote monitoring, edge analytics and predictive maintenance and digital twin.

Key Performance Indicators (KPIs)



Availability

- Measures the uptime of machines and equipment, ensuring that production schedules are met without delays.

Quality

- Tracks the consistency and standard of products, helping to maintain high-quality outputs.

Downtime

- Monitors and minimizes unplanned downtime, which can severely impact production efficiency.

Behind Plan

- Keeps track of production schedules, ensuring that any delays are quickly identified and addressed.

Actual Performance

- Evaluates the performance of machines against their expected capabilities, providing insights into areas for improvement.

Overall Equipment Effectiveness (OEE)

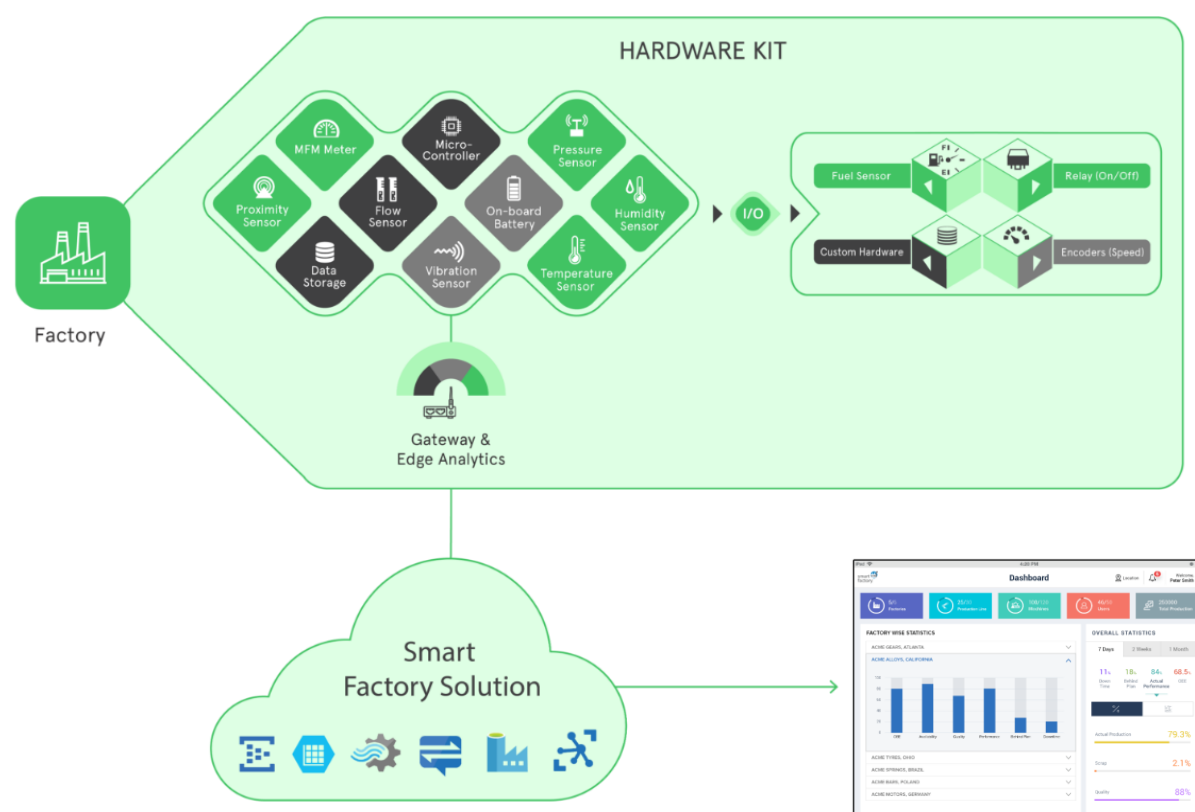
- Combines availability, performance, and quality metrics to provide a comprehensive view of manufacturing productivity.

Machine Status

- Tracks whether machines are down, idle, or in use, allowing for better resource allocation and maintenance planning.

Avnet's Smart Factory Solution on AWS

Avnet's Smart Factory solution on AWS empowers manufacturers to achieve higher quality products, enhanced operational visibility, and optimized production processes. By integrating cutting-edge IoT technology with machine learning and AI, this solution provides the tools needed to stay competitive in today's rapidly evolving manufacturing landscape



Highlights

Seamless Integration and Rapid Deployment:

- Our smart factory solutions leverage extensive expertise and a strong partner ecosystem, enabling quick deployment with minimal disruption. The modern networking infrastructure easily integrates with existing systems, reducing time, costs, and risks.

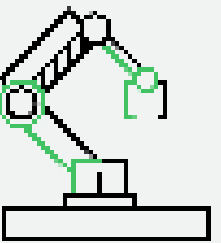
Advanced Technology for High ROI:

- Featuring cutting-edge technologies such as IoT, machine learning, AI, and advanced analytics, our solutions provide real-time insights and streamline operations, driving accelerated return on investment.

Secure and Scalable Platform:

- Our solutions prioritize comprehensive data security, adhering to the highest industry and federal standards. Built on the /IOTCONNECT platform, they offer proven scalability to support future growth and evolving needs.

Features



1. Real-time Operational Visibility

Solution offers a comprehensive view of the factory floor, enabling manufacturers to monitor equipment performance and production metrics in real-time. Dashboards accessible via web and mobile apps allow supervisors and management to keep a close eye on operations from anywhere, ensuring that potential issues are addressed promptly.

2. Data Integration and Analysis

Avnet's Smart Factory solution seamlessly integrates with existing Supply Chain Management (SCM) systems and connects various devices, sensors, and equipment across the factory floor. This integration allows for the aggregation of sensor data, which is then merged with system data for local analytics and cloud upload. Amazon AWS provides the scalable and secure backend for this data, ensuring reliable and efficient data processing.

3. Machine Learning & AI Capabilities

Leveraging machine learning and artificial intelligence, the solution enables predictive and prescriptive analytics. This allows manufacturers to not only predict potential equipment failures but also to optimize machine performance and overall equipment effectiveness (OEE). The AI-driven insights help in reducing downtime, improving quality, and making informed decisions that enhance operational efficiency.

/IOTCONNECT is available for subscription and a free trial on AWS Marketplace [HERE](#)



Get started with Avnet /IOTCONNECT solutions on AWS

Contact our IoT experts – mailto:@Avnet.com

