



Smart Manufacturing and Industry 4.0 Solution Brief

IOTech's edge software is helping
manufacturers leverage existing
data to optimize production



Solution Benefits

- **Interoperability** - provides the necessary protocol translation for communication to be established between devices that are otherwise not able to communicate
- **Local processing** - enables the offloading of computing tasks from smart devices by caching/storing information and acting as a private subsystem that can be accessed remotely
- **Quality of service** - can maximize the effectiveness of available network bandwidth while minimizing endpoint bottlenecks
- **Security** - can be used to support more sophisticated security solutions than those implemented on each individual endpoint, creating a good defensive, in-depth strategy for the whole factory network
- **Local storage** - helps save transmission costs by only sending relevant data to the cloud. In many cases it is more efficient to have the edge platform capture the data and make analytical decisions locally



Smart Manufacturing and Industry 4.0 Solutions

Industry 4.0 is used interchangeably with the fourth industrial revolution and represents a new stage in the organization and control of the industrial value chain. To help create operationally efficient smart factories, manufacturers are increasingly focusing on automating the data exchanges between their equipment and control systems, as well as adopting modern technologies such as edge AI and computer vision.

The Industrial Internet of Things with its many IoT stack components, from Industrial IoT platforms to Industrial IoT gateways, devices and much more plays a pivotal role in the scope of Industry 4.0.



"Through IOtech's edge computing solution, we are able to create an optimum product and service that brings significant value to our customers."

Jim Chen, General Manager,
King steel

Solution Description

IOtech software solutions make Industry 4.0 possible by enabling organizations to leverage their existing data and also many new data sources, including data from connected assets to gain efficiencies and operational intelligence on multiple levels, transform existing manufacturing processes, create end-to-end information streams across the value chain and realize new services and business models.

IOtech's edge software products are designed to maximize openness, flexibility and choice users. This means providing solutions that provide independence from hardware, operating system, programming language, applications, OT protocols and choice of cloud technologies.

Comprehensive configurable OT and IT connectivity simplifies real-time data acquisition and sharing, enabling IoT data to be easily delivered to where it is most value at the edge or in the cloud. IOtech provides extensive, low-touch, configurable connectivity for key Industry 4.0 OT communication technologies including:



Our software platforms are optimized for low latency time-critical decision making and span the complete spectrum of “hard” to “soft” real-time system requirements.

Key Platform Features

Our software platforms are optimized for low latency time-critical decision making and span the complete spectrum of “hard” to “soft” real-time system requirements.

Technology independence combined with highly optimized implementations mean that our solutions can be deployed in a broad range of target edge environments, including resource constrained microcontroller applications.

IOTech edge software for Industry 4.0 can support a broad range use cases from product design, prototyping and development, remote control, services and diagnosis, condition monitoring, proactive and predictive maintenance, track and trace, structural health and systems health monitoring, planning, innovation capability, agility, real-time applications and more.

For systems consisting of hundreds or possibly thousands of nodes the management of both hardware, infrastructure and applications is a major challenge. IOTech’s approach is to create an open edge management solution that simplifies the provisioning, configuration, monitoring and life cycle management of node applications and their connected devices throughout the lifetime of a system.





For additional information on our products,
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