Microsoft

Create the Internet of Your Things in Manufacturing

The Microsoft Cloud OS Vision

The Internet of Things is driving new challenges for the manufacturing industry

30 billion

The number of connected (autonomous) things predicted to be part of the Internet of Things by 2020.

IDC, Worldwide Internet of Things (IoT) 2013-2020 Forecast: Billions of Things, Trillions of Dollars, Doc # 243661, October 2013.

75%

Three-quarters of companies (75 percent) are either actively exploring the IoT or already using it.

© Reproduced by permission of the The Economist Intelligence Unit, The Internet of Things Business Index, October 2013.

$7.3 trillion

The potential market size of the Internet of Things in 2017.

IDC, Worldwide Internet of Things Spending by Vertical Markets 2014-2017 Forecast," Doc # 246384, February 2014.

The need to control costs: Investments in manufacturing systems are often millions of dollars and depreciated over decades. Replacing these systems requires clear ROI, and doing so is generally looked at with strong skepticism. In addition, saving small fractions of a percent can result in large additions to the bottom line.

Concerns about security: Most manufacturing systems today are self-contained entities not generally connected to other business functions. The real or imagined threat of viruses or other malware infecting systems and causing millions of dollars in damage has kept manufacturing from realizing the potential of the Internet of Things.

Time to value: Traditionally, the ROI on manufacturing investment is considerably longer than other IT-centric businesses. Because of this, new investments often take years of study before they are adopted, while those made in the past 10 to 20 years are still amortizing.

Shifting locations and business models: Companies are increasingly operating in new locations, such as China, Eastern Europe and the Middle East, to reduce costs and locate production close to new sources of demand: emerging markets. This diversity of locations increases companies' need for internal collaboration solutions.

Respond with the Microsoft solution: create the Internet of Your Things in manufacturing

The Internet of Things doesn't have to be overwhelming. Rather than think about the Internet of Things as billions of devices and sensors connecting to systems and the cloud, think about what matters to your business the most. Your robots. Your logic controllers. Your raw-materials purchasing systems. That's the Internet of Your Things. As a trusted technology leader, Microsoft can help manufacturing enterprises increase innovation and agility, and drive smarter operations while building on their existing technology assets, devices, services and data and creating a truly intelligent system. By implementing a strategy to capitalize on the Internet of Things, you can stop just running your business and start making it thrive.

Transform your business with the Internet of Your Things

With Microsoft technologies, including devices and services, along with our partner ecosystem, you can improve your business in the following areas:

Integrate disparate locations

Take advantage of a worldwide workforce, and collaborate securely across time zones.

Reduce downtime

Connect devices and data in real time to easily identify where bottlenecks emerge and where optimization can increase throughput.

Update legacy systems without wholesale replacement

Add sensors and tap into data to add years to the life of your operations by identifying issues before they happen.

Capitalize on new opportunities to innovate

Respond to changing conditions by identifying them earlier and modeling changes better through data.

Empower employees with secure, managed devices

Enable productivity, application development, access security and system management across devices and platforms.

Build smarter operations

Connect devices, machines, sensors and more, and make them more intelligent so they can capture usage patterns, issue maintenance orders, request inventory replenishment, and update in real time.

Take inventory management to a new level

Bar-coding and RFID technologies enable manufacturers to take inventory management to a new level by combining insights with supplier production data to drive better demand forecasting and reduce stock-outs and excessive inventory.

Our customers benefit from the Internet of Things

"Our goal was to develop a monitoring and control server that can easily integrate with current transformer substations and operate flexibly and reliably. Only Windows Embedded Server could do it so perfectly .... Windows Embedded Server allows us new opportunities in the power market."

State Grid Corp. of China
Wu Xun
Leader of ABB China Substation Automation System

"With the manufacturing solution from Breton and Microsoft, we can create new roadways and be creative and different. It empowers us to celebrate new visions in stone — there's nothing we can't do."

Lido Stone Works
Eliot Mazzocca
President

"We manufacture a complete car body every 77 seconds. We don't have time to adjust source code, and we can't introduce something that isn't trusted and proven. Our system, built with Microsoft technology, enables us to react very quickly."

KUKA Robotics
Jake Ladouceur
Managing Director