Connected Field Service with Microsoft

Transforming the customer experience
Evolving customer expectations, thinning profit margins, and the increasing commoditization of products are bringing new challenges to manufacturers around the globe. As a result, customer experience is becoming a key differentiator across industries. As customers demand better, faster service, innovative manufacturers are focused on providing a model designed for success in the field, building customer relationships, optimizing operations, and increasing profitability across their organizations.

26% of service calls require return visits.¹

81% of service teams say service has the largest impact on how customers perceive their brand.²

47% increase of uptime through the use of smart devices.³

Together with Microsoft, we are on the leading edge, combining our technologies to leverage the Internet of Things and people to help realize business and social innovations in this hyper-connected world.

Ryosuke Mori
Vice President, Global Strategic Alliances,
Fujitsu Ltd.

Digital transformation is enabling manufacturers to create connected networks.

By leveraging Internet of Things (IoT), machine learning, mixed reality (MR), and big data, manufacturers can drive revenue growth, optimize processes, increase productivity, and improve the customer experience.

Microsoft is helping organizations to transform their organizations with end-to-end solutions that connects data, people, and equipment. With connected field service solutions, manufacturers can deliver a profitable field service that deepens customer loyalty. Using these solutions provide manufacturers with higher visibility across their organization while minimizing downtime, reducing costs, and increasing customer satisfaction and sales through cross-selling and upselling opportunities. As a result, manufacturers are transforming their market offerings to deliver a rich set of value-added business services and provide a complete, connected customer experience.
Less downtime more satisfied customers

Connected field service solutions enable manufacturers to transform their products and services. IoT capabilities allow devices to be connected and monitored, furnishing visibility into equipment performance. This paves the way for organizations to move from a costly break/fix model to a proactive, predictive service model—gaining awareness of equipment failures before they happen and the ability to systematically prevent them. Through data insights gleaned from these solutions, manufacturers can recommend more effective equipment to cross-sell and upsell to their customers. Together with scheduling, mobile, and resource optimization, these capabilities minimize downtime, accelerate repairs, increase technician productivity, and improve customer satisfaction.
Reduce downtime with proactive alerts from connected devices.

Accelerate repair times by ensuring service technicians are fully equipped to deliver a first-time fix.

Lower maintenance costs by dispatching the right technician only when needed.

Gain enhanced visibility into products, services, company, performance, and customer satisfaction.

Address issues faster by monitoring devices remotely and keeping customers in the loop.

Maximize upselling and cross-selling opportunities with deeper insight into customer usage and trends.

With Connected Field Service solutions, manufacturers can:
With this solution we are able to reinvent the art of manufacturing. Tools, machines, processes working together, all the way from the customer to the sales interaction, helping us deliver an unprecedented level of field service.

Klas Forsström
President, Sandvik Coromant
Transforming field service

Working with Microsoft, organizations around the world are delivering more profitable field service and deepening customer loyalty with end-to-end field connected field service solutions. Using innovative Microsoft technology (including IoT, machine learning, and mixed reality), connected field service can help organizations to optimize operations and expand their service capabilities.

Explore how five organizations are transforming field service with Microsoft.
Remote monitoring and predictive maintenance

View product usage, issues, and repair history from a central portal to diagnose problems and deliver predictive maintenance.

ThyssenKrupp, the global elevator manufacturing company, wanted to better compete in their industry by boosting their preventive maintenance capabilities to greater heights and offering dramatically increased uptime.
Remote monitoring and predictive maintenance

**Process**

Using the Microsoft Azure IoT Suite, ThyssenKrupp captures elevator data—such as motor temperature, shaft alignment, cap speed, and door function—and transmits it to a single dashboard. This provides real-time data visualization of immediate issues and information for future management.

**Results**

- Reduced costs
- Increased elevator uptime
- Developed real-time data visualization and awareness of issues

**Related products:**

- Microsoft Azure IoT Suite
- Microsoft Azure
- Microsoft Power BI
- Windows Server

“We wanted to go beyond the industry standard of preventative maintenance, to offer predictive and even preemptive maintenance.”

Andreas Schierenbeck
CEO, ThyssenKrupp Elevator

[Read the case study](#)
Service alerts

Get instant notifications and alerts about device health to automate the service request generation process using predefined rules.

Ecolab—a leading global provider of water, hygiene, and energy technologies and services—is helping companies worldwide operate more sustainably.
We need to collect and analyze massive amounts of information. Now, we can identify opportunities and gaps, provide the right solutions and, most importantly, manage our customers’ process so that they can get closer to net-zero water usage.

Christophe Beck
Executive Vice President and President, Nalco Water, an Ecolab company
Technician dispatching

Dispatch technicians using optimized routes and skills-based assignments and resources.

Michelin extends their premium customer service model to a seamless, on-site customer experience with Michelin OnSite, where they send technicians into the field to perform installations and repairs for customers.
As we continue to grow and build, the Microsoft platform is going to help us manage the routing and schedule and keep us on top of the customer expectations—that’s critical to our business.

Kevin Doyle
Initiative Leader, Michelin OnSite
Field enablement

Empower service technicians with complete customer insight, real-time guidance, and cross-team collaboration.

Tetra Pak, a packaging company in the food industry, is employing digital tools that enable its cloud-connected machines to predict exactly when equipment needs maintenance. When repairs are needed, Tetra Pak service engineers use Microsoft HoloLens headsets to more quickly diagnose and fix machine issues, even in remote locations.
To streamline machine diagnostics and repair for customers, Tetra Pak service engineers use HoloLens devices. Service engineers can make a Skype call to a Tetra Pak service center and speak to an expert with deeper knowledge of a specific machine. The expert remotely guides the engineer through a repair, reducing the time needed to fix the problem. This solution also cuts the repair costs by removing the need to dispatch another service engineer to assist.

Results

- Analyzed data patterns from more than 5,000 packaging lines to predict maintenance timing
- Saved customers more than $30,000 by predicting and preventing future breakdowns
- Cut fix times by enabling remote guidance via MR headsets

Related products:

- Microsoft Hololens

This is how we take the global expertise that we have available somewhere in Tetra Pak and bring it to the fingertips of the engineer in the countryside in Chile or Pakistan.

Johan Nilsson
Vice President, Tetra Pak Services
Global visibility

Equip technicians with sales data so they can take advantage of cross-selling and upselling opportunities, making data-driven recommendations based on their customers’ usage and demonstrated needs.

Sandvik Coromant, part of the Sandvik Group, is a global engineering organization that produces machining tools and tooling systems for the manufacturing industry. Sandvik Coromant’s employees have years of in-depth knowledge of machining and tooling processes in multiple industries. These proficiencies enable Coromant’s specialists to offer a personalized approach to help their customers. However, these technical experts can’t be everywhere all the time. Therefore, Sandvik Coromant decided to digitize their knowledge to make the information available to all parts of the production loop. Plus, by applying analysis tools, they were able to provide intelligent feedback—both to the relevant machines and their human operators.
Global visibility

Process

The predictive analytics manufacturing solution includes an in-house shop floor control tool that collects machining and tool data. It then sends the data to Microsoft Azure for real-time analysis using machine learning algorithms from Cortana Intelligence.

Machining data is also collected from sensorized cutting tools through Azure IoT. With the help of Azure Machine Learning and Streaming Analytics, Sandvik Coromant added embedded intelligence to these tools to capture data that can be used to automatically adjust equipment, notify technicians when maintenance is needed, and alert plant managers of a potential failure.

Results

• Reduced the time needed to make emergency shutdown decisions from two seconds to 100 milliseconds
• Provided instant feedback to customers to improve efficiencies
• Delivered cost savings of millions of dollars

Related products:

• Microsoft Azure IoT Hub
• Microsoft Azure IoT solution accelerators
• Cortana Intelligence Suite
• Microsoft Dynamics 365 for Field Service

We are looking to convert the knowledge our people have in their heads into a digital format and apply machine learning tools that can look at the data, optimize it, and adjust configurations to optimize production. It will not replace the operator, but will give the operator another tool to improve production.

Nevzat Ertan
Chief Enterprise Architect and Senior Manager, Sandvik Coromant
The Microsoft Difference

Microsoft is committed to innovation and developing new capabilities to drive business value across the manufacturing industry.

By working with Microsoft, organizations can take advantage of:

- The most comprehensive portfolio available for sales and service
- The Microsoft commitment to an open platform, connecting existing devices and software to tailor Microsoft solutions to a manufacturer’s needs
- Highest number of global compliance certifications in the industry, allowing customers to maintain ownership and control of their data without compromising its safety
- End-to-end solutions that leverage both the intelligent edge and the intelligent cloud
- Partner ecosystem with access to an unparalleled network of innovators
- Scalable cloud solutions that are available in more regions than any other provider
“What truly impressed me with our Microsoft collaboration was that it was not about selling us a product. It was about building something and addressing the world’s water challenge together.”

Christophe Beck
Executive Vice President and President, Nalco Water, an Ecolab company