

Equipment Manufacturers Use Software AG's Cumulocity IoT Platform To Deliver IoT-Enabled Services, Develop New Revenue Streams, And Enhance Competitiveness

To stay competitive in today's rapidly changing marketplace, industrial equipment manufacturers can no longer rely on their ability to efficiently manufacture high quality products. They recognize a growing market imperative to deliver products-as-a-service and enhance customer experiences. Failure to do so will result in losing share to both low-cost competitors and more competent digital players. However, many have seen false starts and sticking points with IoT initiatives, owing in large part to the technical complexity of IoT platforms.

The Software AG Cumulocity IoT platform enables equipment manufacturers to quickly bring devices online and begin delivering the benefits of IoT to customers. To better understand the benefits, costs, and risks associated with the Software AG Cumulocity IoT platform, Software AG commissioned Forrester to conduct in-depth interviews with customers using the platform to deliver smart, connected products and construct a Total Economic Impact™ (TEI) study. Key interviewees include:

- The IoT development manager at a manufacturer of automotive assembly and production equipment.
- The head of product and technology for an industrial sensor and gateway manufacturer.
- The CEO of an industrial automation manufacturer and service provider.
- The sales and automation manager at an industrial equipment manufacturer.
- The engineering leader at an industrial equipment manufacturer.

Software AG's Cumulocity IoT Platform delivered three-year benefits of up to:

↑125%

Incremental revenue from advanced IoT analytics.

↑66%

Attach rates for add-ons to customer orders.

↑50%

Competitive win rate with IoT-enabled services.

This abstract focuses on the use of the Cumulocity IoT platform by *smart equipment manufacturers* to connect and monitor industrial equipment as well as to deliver new services to customers. Examples of how smart equipment manufacturers are using the Software AG Cumulocity IoT platform include:

- Branding interfaces for customers to connect and monitor industrial automation equipment.
- Increasing quality of customer outcomes by remotely monitoring field equipment, applying advanced analysis techniques, and recommending performance optimizations.
- Delivering analytics and dashboarding capabilities to customers.
- Enabling the development of digital industrial solutions that both drive new revenues and pull through equipment sales.
- Supporting high volumes of devices spread across multiple thousands of customer tenants.

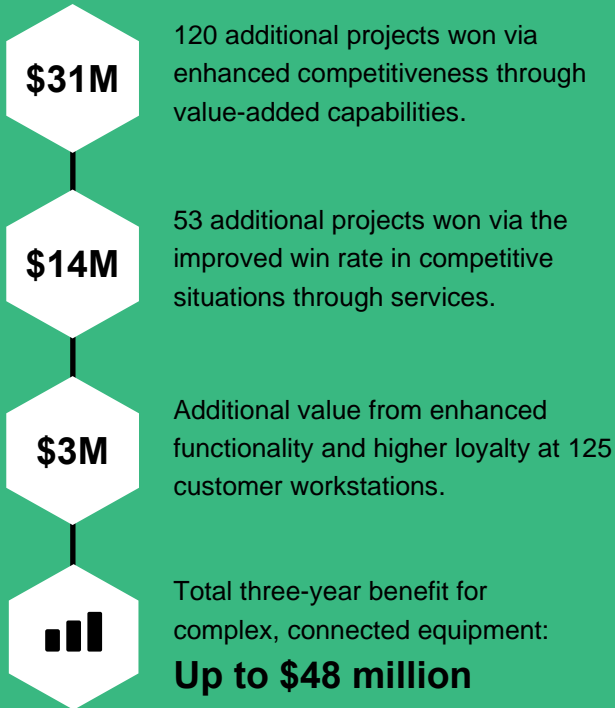


[READ THE FULL STUDY HERE](#)

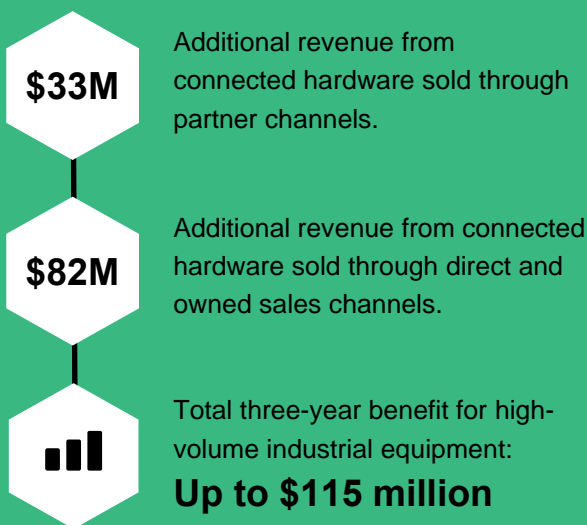
RETURNS FOR KEY USE CASES

Three-year, risk-adjusted present value total benefits for a sample smart equipment manufacturer

COMPLEX, CONNECTED EQUIPMENT



HIGH-VOLUME INDUSTRIAL GATEWAYS AND SENSORS



INVESTMENT DRIVERS

Manufacturers of industrial equipment recognize a market imperative to deliver downstream services enabled by IoT to meet evolving customer expectations and maintain overall competitiveness in the marketplace.

Despite a recognized need to innovate, many equipment manufacturers have struggled with the complexity of IoT technologies, making it difficult to get initiatives off the ground. Several had some experience with other IoT platforms, e.g., either as homegrown solutions or platforms provided by other vendors. Equipment manufacturers reported the following challenges with preexisting IoT platforms:

- **Technical complexity of preexisting platforms.** The technical complexity of other IoT platforms was an acute problem for:
 - Manufacturers early on in their IoT journeys.
 - Manufacturers that wanted to deliver IoT services without standing up dedicated in-house software teams.
- **Lack of support for OEM branding.** Some equipment manufacturers' preexisting IoT platforms did not allow for white labeling, and these third-party branded interfaces created subpar customer experiences. Interviewees' organizations wanted to create consistent, premium experiences for their customers.
- **Inconsistent platform reliability.** Interviewees reported inconsistent performance with preexisting IoT platforms, including failed software updates, which made it difficult to manage devices deployed in the field.

CUMULOCITY IOT PLATFORM FEATURES

The Software AG Cumulocity IoT platform enables equipment manufacturers to quickly add a service layer to their products and begin engaging customers in new ways. Interviewees with experience using the Cumulocity IoT platform to deliver smart equipment value the following attributes of the platform:

- **Low technical barriers to entry.** Equipment manufacturers benefit from the platform's simplicity in multiple scenarios. Manufacturers that are earlier in the IoT journey use Cumulocity IoT to develop lightweight IoT service offerings without standing up dedicated IoT software engineering teams. This simplicity is particularly important to smaller firms with limited resources that need to focus on core competencies.
- **Rebranding.** Smart equipment manufacturers use Cumulocity IoT to create branded interfaces to remotely monitor and control their products. This level of customization is essential to delivering consistent and high quality experiences.
- **Costs that scale with usage.** Smart equipment manufacturers expect adoption of IoT technology to accelerate in the next two to three years. However, today many are still in the early stages of developing IoT-enabled business models. Costs that scale with deployments enable equipment manufacturers to experiment with new business models, understand customer needs, and grow investments in IoT over time.

“If you look at our competitors, not many of them deliver this type of offering. So, if customers want these capabilities, they need to come to us, which also helps us to win projects.”

IoT development manager, manufacturer of automotive assembly and production equipment

“[The Cumulocity IoT platform] provides us with a visual drag-and-drop editor that customers use to build their own analytics. Other platforms wouldn't have allowed us to deploy solutions in this way. The only way we could have achieved this outcome was through an in-house, custom-built solution, but that would have come with very high development costs.”

IoT development manager, manufacturer of automotive assembly and production equipment

- **Adding new devices and protocols to IoT ecosystems with ease.** The Software AG Cumulocity IoT platform easily adds and integrates new types of hardware. For smart equipment manufacturers, this capability has multiple benefits:
 - Smart equipment manufacturers can quickly expand usage within their own product lines.
 - Manufacturers can quickly integrate devices built by other companies that are used in customers' environments into IoT scenarios, growing their influence as the provider of a comprehensive service layer.
- **Analytics and dashboards.** The Cumulocity IoT platform's analytics and dashboards are both robust and highly configurable directly out of the box. Equipment manufacturers use the platform's analytics capabilities to monitor equipment and to build custom dashboards for their customers.

KEY RESULTS

Smart equipment manufacturers use the Software AG Cumulocity IoT platform to deliver services that enhance competitiveness and drive revenues.

Enhanced competitiveness through value-added capabilities. Smart equipment manufacturers' ability to deliver IoT services is an increasingly important competitive advantage.

- **The engineering leader for an industrial equipment manufacturer explained how the ability to deliver IoT services helps the company to win against competitors:** "Customers are asking for the technology, and having this expertise helps us to remain competitive in the market. They think of us first because they know we're able to deliver IoT capabilities."
- **The sales and automation manager for an industrial equipment and automation company told Forrester that the company's ability to deliver services is becoming an increasingly important factor in winning deals.** Today, IoT capabilities are a competitive factor in approximately 10% to 15% of deals the company bids on. However, they expect IoT capabilities to be a deciding factor in 60% to 70% of deals in the next two to three years.

Improved win rate in competitive situations by offering services. Providing IoT services demonstrates the value of the technology to customers, and smart equipment manufacturers report that service contracts frequently lead to additional deals later. One smart equipment manufacturer even uses Cumulocity IoT to deliver services on competitors' equipment by taking advantage of Cumulocity IoT's ability to integrate with such a wide variety of hardware. Such service engagements position these manufacturers for larger sales later when customers purchase new equipment.

- **The engineering leader for an industrial equipment manufacturer in Latin America (LATAM) shared that once customers see the value of IoT, they want to connect everything at their industrial sites.** While advanced monitoring and maintenance solutions extend the useful lifetime of equipment, thereby reducing the frequency with which customers will buy new equipment, the opportunities to grow customer accounts and deliver complete solutions are far greater.
- **An industrial equipment manufacturer in NA strategically attaches lightweight IoT services to legacy equipment from competitors that its customers already have in use.** The company seeks to identify one or two salient issues to address with digital solutions. While the value of these contracts is initially small, this approach positions the company well for larger sales when customers upgrade or add new equipment. The sales and automation manager told Forrester that it would not be possible to deliver these solutions without the Software AG Cumulocity IoT platform because software engineering resources are scarce within the company.

"We are experiencing a lot of pull-through of hardware revenue because we are able to have conversations with our customers about digital capabilities."

IoT development manager, manufacturer of automotive assembly and production equipment

Revenues from advanced, IoT-enabled capabilities. The digital solutions that smart equipment manufacturers build on the Software AG Cumulocity IoT platform add value to hardware solutions, improve customer loyalty, and generate incremental revenues.

- **An industrial automation manufacturer and service provider builds software for industrial applications with the Cumulocity IoT platform as a foundation.** According to the CEO, the company expects software sales to generate tens of millions of dollars in annual revenues in the coming years. Yet, the real value of these capabilities is in their propensity to drive sales of hardware and services, which typically represent up to two-thirds of a sale's total value.
- **An automotive assembly and production company leverages the Cumulocity IoT platform to deliver advanced analytics capabilities to customers striving to build zero-defect assembly lines that generate incremental revenues and outsized value.** The IoT development manager shared: "If you look at our competitors, not many of them deliver this type of offering. So, if customers want these capabilities, they need to come to us, which also helps us to win projects."

Incremental revenues from connected hardware shipped through partners. Smart equipment manufacturers use the Cumulocity IoT platform to develop and support connected hardware installations shipped by telecommunications channel partners, driving hardware and service revenues.

- **An industrial gateway and sensor manufacturer uses the Cumulocity IoT platform to deliver and support connected hardware products sold through its telco partners.** Building on the same platform opens new sales and distribution opportunities, since there is guaranteed compatibility and low development efforts for cooperation. The head of product and technology explained: "There are a lot of mobile network operators using the Cumulocity IoT platform, and for them to sell our products, there's a very low development effort. I don't think they'd be as willing to work with us if we weren't using a shared platform."

"We very frequently leverage Cumulocity IoT's device modelling capabilities. We can easily represent new devices on the platform, which accelerated our development efforts."

Product manager, IoT center of excellence, consumer and industrial equipment manufacturing

Incremental revenues from connected hardware sold directly through owned channels. Smart equipment manufacturers also use the Software AG Cumulocity IoT platform to develop and support connected hardware installations sold directly to end users, again driving hardware and service revenues.

- **An industrial automation manufacturer and service provider used sophisticated digital capabilities enabled by Cumulocity IoT to drive hardware sales.** On average, hardware is two-thirds of the value of a sale, with deals ranging into the millions of dollars. The CEO told Forrester: "We are experiencing a lot of pull-through of hardware revenue because we are able to have conversations with our customers about digital capabilities. When customers want to activate digital solutions, they also need the relevant hardware, which ends up being the largest part of the sale."
- **An industrial gateway and sensor manufacturer uses the Cumulocity IoT platform to deliver and support connected hardware products for small businesses.** The company earns one-time revenues on gateway sales plus ongoing revenues from services, which it delivers via a white-labeled version of the platform. The company further derives revenue by selling industrial sensors with a high attach rate to gateway sales. Customers that purchase gateways very quickly recognize the value of IoT for solving business problems, boosting downstream sensor sales.

Unquantified benefits. Interviewed organizations also reported benefits that are not quantified as part of the study.

- **Improved customer experience and retention through services.** Smart equipment manufacturers use services delivered with Software AG Cumulocity IoT to enhance customers' experiences with core products and improve outcomes:
 - An industrial equipment manufacturer uses the platform to both monitor equipment installed at customer sites and to recommend changes to settings for optimal performance, through the application of advanced artificial intelligence and machine learning (AI/ML). According to the firm's engineering leader, customers have seen increases of up to 200% in equipment's lifetime and energy savings of up to 20% as a result.
 - Another industrial equipment manufacturer uses the platform to monitor for potential issues on its manufacturing customers' assembly lines, helping them to avoid periods of downtime that can cost as much as \$250,000 per hour.
- **Ease of collaboration with the broader IoT ecosystem.** Manufacturers told Forrester that standardizing on the Software AG platform, which is used by global telecommunications and industrial companies, opens up opportunities for collaboration with other ecosystem players. Support for a wide range of industry standards and protocols also facilitates cooperation among equipment makers, communications providers, and software companies, among others.

- **Expert guidance from Software AG engineers and solutions specialists.** Smart equipment manufacturers report successful collaborations with Software AG's IoT experts. For example, the manager of sales and automation for an industrial equipment manufacturer shared, "Software AG provided us with technical guidance at the start to get our equipment online, but they also helped us to understand what resources and capabilities we needed to start winning customers."

Flexibility. According to interviewees using the Software AG Cumulocity IoT platform to deliver smart, connected products, the platform will enable transformational business initiatives. The following examples of flexibility, which are defined by the strategic value that can be obtained for some future additional investment being built on top of the initial investment, have been cited by customers:

- Several equipment manufacturers cited their existing investments in the Cumulocity IoT platform as underpinning future strategies to shift from pricing based on unit costs or fixed subscription billings to pricing based on outcomes delivered to the customer.
- An industrial automation provider partnered with Software AG to build core components of its digital solutions portfolio, which is central to its transformation from an industrial equipment maker to an Industry 4.0 solutions provider.

"Customers are asking for the technology, and having this expertise helps us remain competitive in the market. They think of us first because they know we're able to deliver IoT capabilities."

Sales and automation manager, industrial equipment manufacturing

TOTAL ECONOMIC IMPACT ANALYSIS

For more information, download the full study: "[The Total Economic Impact™ Of The Software AG Cumulocity IoT Platform](https://www.softwareag.com/en_corporate/platform/iot/total-economic-impact-iot-forrester-report.html)," a commissioned study conducted by Forrester Consulting on behalf of Software AG, May 2021.

STUDY FINDINGS

Forrester interviewed organizations with experience using the Cumulocity IoT platform and combined the results into a three-year composite organization financial analysis. Quantified benefits include:

- 125% increase in incremental revenues from advanced IoT analytics solutions.
- 75% reduction in IoT operations costs compared to previously used platforms.
- 66% increase in attach rates for add-ons to customer orders.
- 50% improved win rate in competitive situations through the delivery of IoT services.
- 35% reduction in unplanned maintenance visits through predictive maintenance and monitoring.
- 30% reduction in licensing costs through platform consolidation and standardization.



Return on investment (ROI)
339%



Benefits PV
\$8.1M



Payback period
<1 year

DISCLOSURES

The reader should be aware of the following:

- The study is commissioned by Software AG and delivered by Forrester Consulting. It is not meant to be a competitive analysis.
- Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Software AG Cumulocity IoT platform.
- Software AG reviewed and provided feedback to Forrester. Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning.
- Software AG provided the customer names for the interviews but did not participate in the interviews.

ABOUT TEI

Total Economic Impact™ (TEI) is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders. The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks, and flexibility.

© Forrester Research, Inc. All rights reserved. Forrester is a registered trademark of Forrester Research, Inc.

FORRESTER®