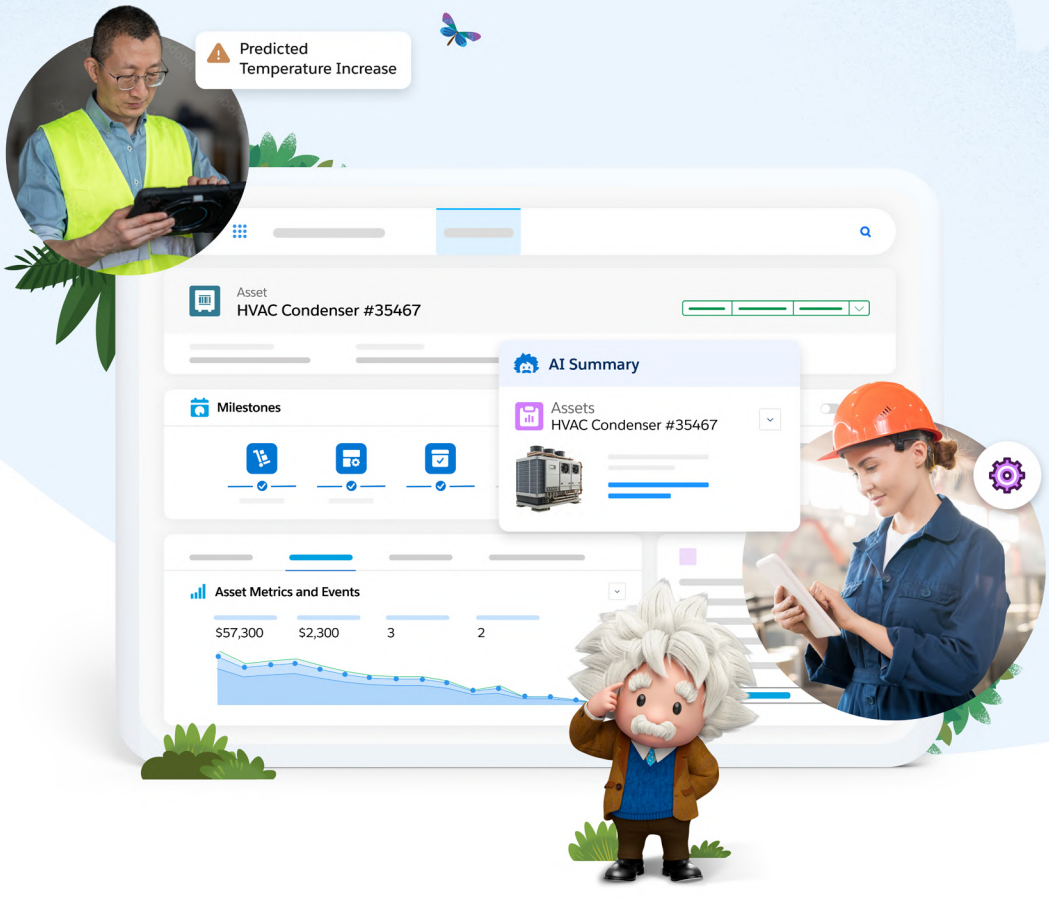
From Reactive Maintenance to Proactive Services: How Connected Assets Improve Manufacturing Service Operations



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Introduction

In today's fast-paced manufacturing landscape, service operations present a significant opportunity for growth and differentiation. However, many manufacturers struggle to fully capitalize on this potential due to several factors.

A lack of visibility into assets is a challenge manufacturers face. Disparate, siloed data often hampers their ability to make informed decisions and optimize their investments.

Additionally, businesses are shifting from one-time product sales and moving toward subscription-based service models. The proliferation of Internet of Things (IoT) technology is accelerating this trend.

The number of IoT devices globally is expected to double from 15.9 billion in 2023 to 32.1 billion in 2030.

IoT connections wordwide 2022-2023, Statista

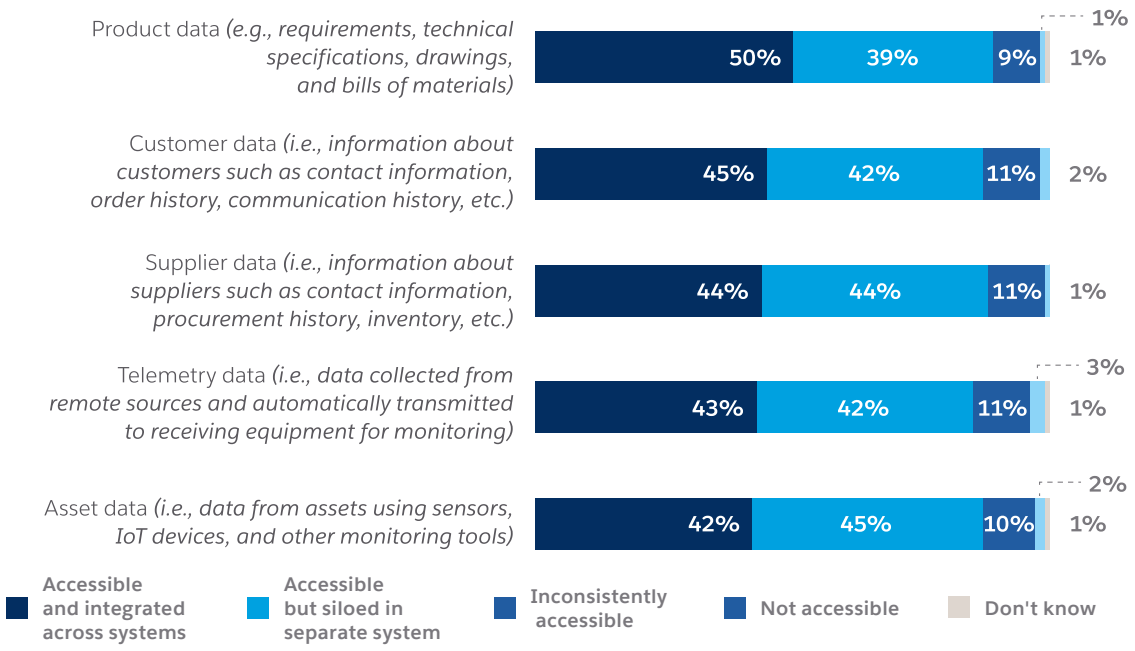
For manufacturers, IoT-enabled connected assets present a tremendous opportunity. They include sensors, software, and connectivity that allow manufacturers to monitor, analyze, and improve performance in real time. This type of data gives manufacturers the ability to expand beyond traditional sales. You can use data from these assets to offer subscription services like predictive maintenance, remote diagnostics, and real-time performance optimization.

This article will explore the benefits of connected assets in manufacturing and the new service revenue models that they create. With connected assets, manufacturers can transform their service operations by creating opportunities for predictive maintenance, personalizing customer experiences at every touchpoint, and opening new revenue streams that result from subscription-based service models.

Create a complete, connected digital view of your assets.

In the era of digital transformation, having a holistic and connected view of your data is no longer a luxury – it's a necessity. Getting visibility into customer data, asset install base, asset service history, telemetry data, and asset revenue data remains a challenge for manufacturers.

Extent to Which Manufacturing Data Is Accessible



Trends in Manufacturing report

Connected assets help manufacturers proactively monitor and act on asset data in new ways. By integrating asset data into your customer relationship management (CRM) platform, you can create a comprehensive digital representation of your assets, providing invaluable insights that drive proactive and predictive service and open opportunities for subscription-based service revenue streams.

78%

of manufacturers say they spend a substantial amount oftime looking for information across systems.

Trends in Manufacturing report

Digital representation of an asset (digital and connected twin)

A digital representation of an asset is the first step in creating a connected digital view of your asset. By creating digital representation of assets on your CRM platform, you gain a clear and detailed view of each asset's status, history, and performance.

This digital twin provides context to understand your assets' role in your operations. You can also see how each asset interacts with other components, and how it contributes to the whole production process. You can even spot potential issues before they become problems.

Monitor

Monitoring is the next critical component. With telematics data, you can continuously monitor how your assets are performing. This real-time data provides a constant stream of information about the asset's condition, usage patterns, and performance measures.

By keeping a close eye on these parameters, you can detect anomalies early, predict potential failures, and take preemptive actions to avoid downtime. This proactive approach ensures that your assets are always operating at peak efficiency, reducing the risk of unexpected breakdowns and costly repairs.

Take action

Taking action based on the insights gained from monitoring is where the true power of connected assets comes into play. An actionable telematics framework allows you to set up automated sequences and alerts based on specific conditions.

For example, if an asset reaches a certain temperature threshold, an alert can be sent to the CRM, prompting immediate action. This could involve creating a work order, dispatching a technician, or even triggering an automated response from an AI agent. By automating these actions, you can respond to issues faster and more effectively, minimizing disruptions and maintaining smooth operations.

Calculated insights

Calculated insights derived from asset data are invaluable for long-term planning and decision-making. By analyzing data on asset performance, usage, and maintenance history, you can calculate key metrics such as asset lifetime value and health scores.

These insights help you understand the true value of each asset, predict its future performance, and make informed decisions about maintenance, upgrades, and replacements. For example, knowing the asset health score can help you prioritize maintenance activities, ensuring that the most critical assets receive attention first.

The integration of these components – digital and connected twins, monitoring, actionable frameworks, and calculated insights – creates a holistic digital view of your assets.

Experience the power of connected assets.

Connected assets are changing the way manufacturers manage maintenance and service operations. They offer numerous advantages that generate new service revenue streams, simplify operations, and elevate overall efficiency.

Deliver proactive and predictive service

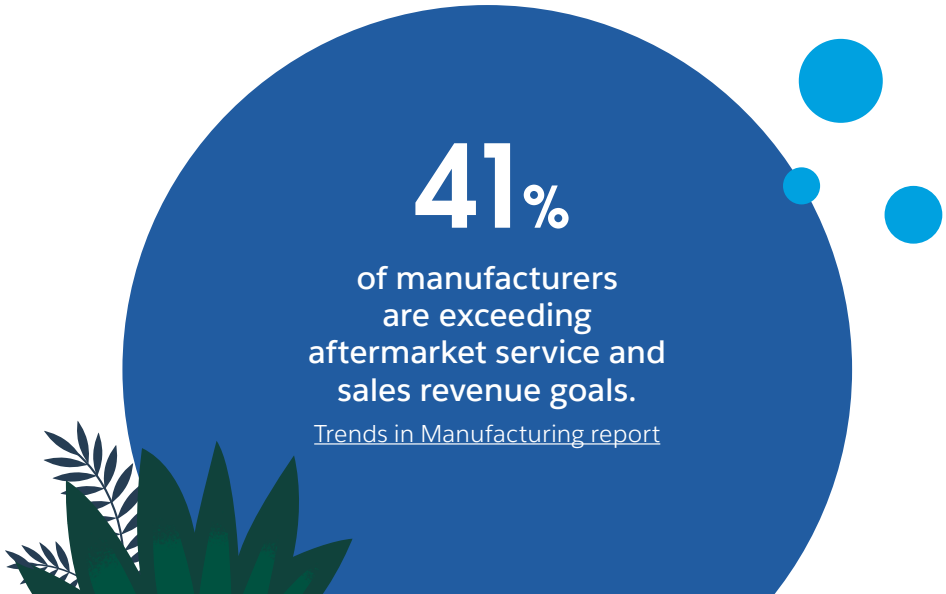
Continuous monitoring of assets allows you to have real-time data into asset performance and condition. By analyzing data collected from connected assets, you can predict when a part is likely to fail or require maintenance. This helps in scheduling maintenance activities before a breakdown occurs, reducing downtime and extending the lifespan of the equipment.

Remote diagnostics using connected asset data also helps service teams identify issues without needing to be physically present. This speeds up the troubleshooting process and helps you make sure the right parts and tools are available when technicians arrive onsite.

Drive new service revenue models

Connected assets can drive revenue growth by offering subscription-based services. With connected assets, you can offer enhanced tiered service packages that include various levels of monitoring, maintenance, and support. You can also offer predictive maintenance services as part of a subscription, ensuring equipment is serviced before issues arise. Connected assets also enable manufacturers to track usage patterns and offer subscription plans based on actual usage. In all these cases, customers can choose a package that best fits their needs, providing a steady stream of recurring revenue.

Predictive insights help identify and capitalize on additional service opportunities. By integrating asset data into your CRM platform, you can turn data into revenue, creating new streams based on past purchases or website interest. This strategic use of data not only enhances customer value but also contributes to the overall growth and profitability of your business.



Increase efficiency

With connected assets, you can monitor asset uptime and downtime to keep your assets productive and efficient. By constantly checking equipment performance, connected assets can spot problems before they happen, and prevent them from causing failures. This can include capturing fault code with asset telematics data in real-time, showing which part is affected, and creating an alert for the service team. Predictive maintenance insights will help you anticipate service events, which will reduce the number of technician visits and improve resource allocation.

Personalize customer experiences

You can create seamless, personalized experiences throughout the customer and asset lifecycle with connected assets. By integrating fault codes and telematics data, manufacturers can drive actions that are tailored to specific asset conditions. For example, a simple fault code might trigger a work order, while a more complex issue could dispatch a technician. This level of precision ensures that every customer interaction is relevant and timely, enhancing the overall service experience.

The ultimate manufacturing customer experience is achieved by connecting customer and asset data, providing consistent, up-to-date profiles at every touchpoint. This holistic view enables manufacturers to create personalized experiences and track the lifetime value of both customers and assets.

71% of customers make purchase decisions based on customer service quality.

Salesforce State of the Connected Customer

Enhance product quality

Manufacturers can enhance product quality with connected assets. Real-time data from these assets allows manufacturers to monitor and adjust production processes in real-time. This ensures that every product meets the highest standards. Taking this data-driven approach improves product consistency and quality. It also helps identify and fix issues quickly.

Make data-driven decisions

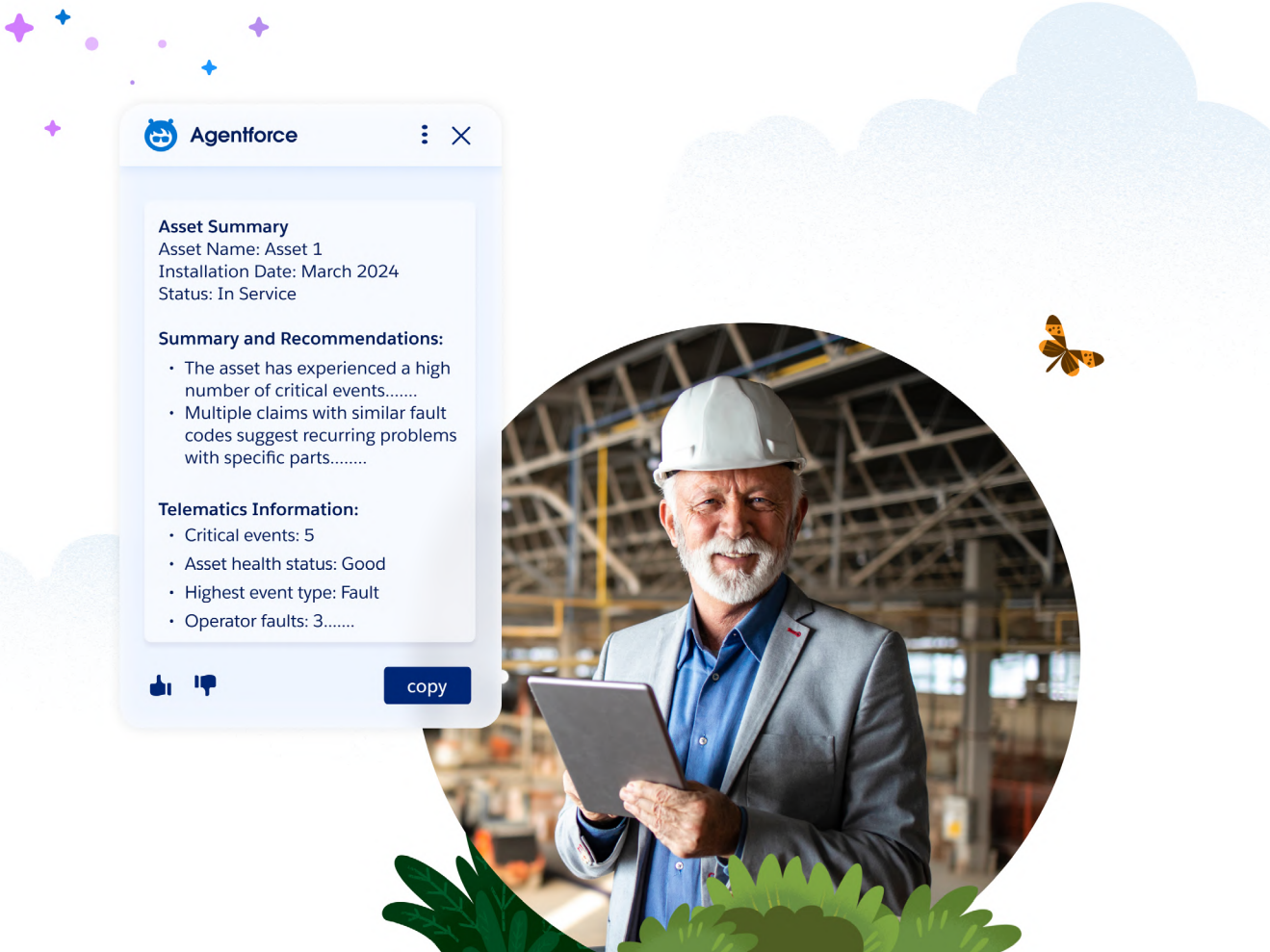
Connected assets also empower manufacturers to make informed decisions quickly. With a comprehensive digital representation of installed assets, including their parts, features, and software, you can monitor asset conditions in real time. This visibility allows for swift, data-driven decision-making, supported by clear, actionable insights from detailed asset data and performance metrics. The ability to visualize assets with real-time parameters driven by telemetry data ensures that you are always aware of the asset's condition, enabling proactive management and maintenance.

Improve productivity

The productivity of service technicians and representatives is significantly enhanced through connected assets. By integrating asset data with CRM data, service capabilities extend beyond the initial point of sale.

Service representatives, equipped with comprehensive asset information, can provide superior customer service and support, handling calls with greater knowledge and efficiency. Autonomous AI agents can also be used to respond to customer inquiries. This proactive approach to asset maintenance minimizes disruptions and reduces the need for repeat visits, leading to higher customer satisfaction and loyalty.

In the field, service technicians can achieve one-visit resolutions by predicting and addressing potential issues during the initial service call, reducing asset downtime and improving productivity.



See connected assets in action.

Here's an example of how connected assets work across manufacturing service operations and processes.

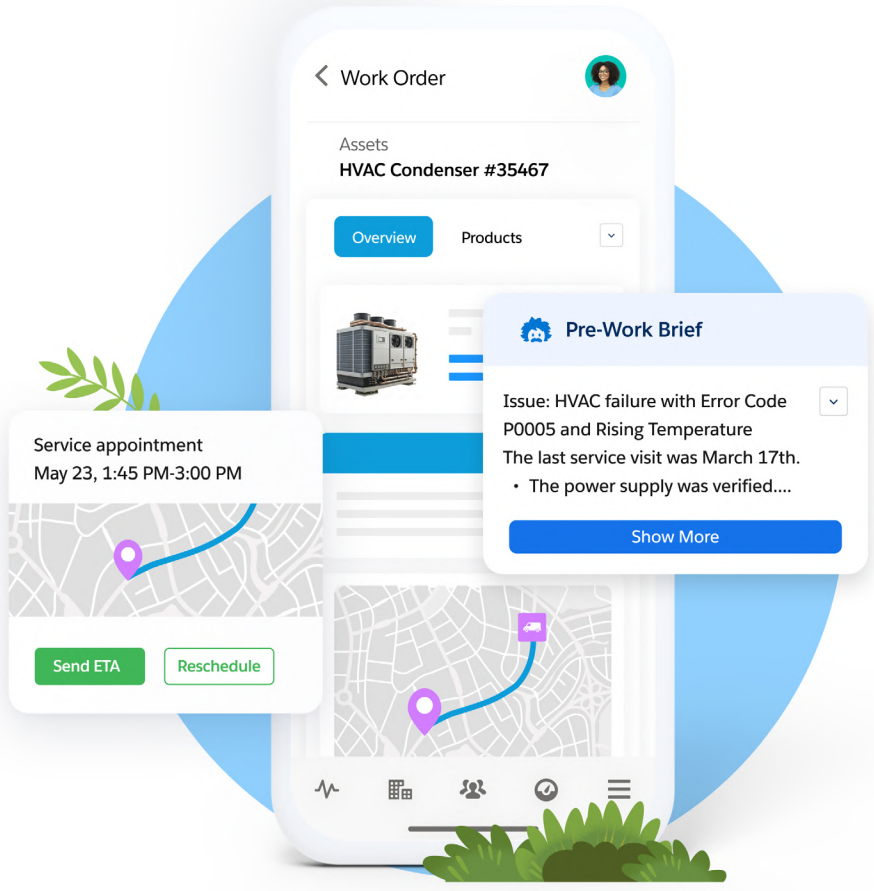
A tire manufacturer has connected assets implemented across their operations. Asset data generated by IoT sensors is integrated with customer data and lives within the CRM platform.

With connected assets in place, a service manager can see a digital representation of installed assets on the CRM platform. This gives the service manager a view and status of all the components of the assets within the manufacturing operation.

Asset performance monitoring allows a service manager to see real-time asset telemetry data. This includes information like temperature, pressure, vibration, energy consumption, and more.

By using an actionable telematics framework, a facilities manager can create conditions on the platform for specific actions. For example, if an asset starts to overheat at a certain temperature, an alert will be automatically created when it goes beyond that threshold.

Let's say an engine that powers the production line overheats, and the facilities manager receives an automatic alert. With the alert, the facilities manager or the technician can see the historical trend of the telemetry data – in this case, the temperature. The alert also shows the associated fault code and the possible affected parts.



Autonomous AI agents can automatically create a detailed telematics summary, capture the specific fault code, estimate the cost of repairs, and generate a work order with line item and asset data. They can even draft an email to the customer to schedule the service job. All of this can be done with just a few clicks.

Work order details, an estimate, and a job brief are generated and sent to a technician. They have access to all the critical details to complete the job, including the telematics summary and asset information.

The asset health score considers the asset's age, usage, and repair history to determine if the asset needs attention. Here, it shows that the engine is approaching its feature retirement – based on the average engine life, it's approaching the end of its lifecycle so it may require special care based on its age. The technician can see the digital representation of the asset and an interactive asset hierarchy on the CRM platform, which helps them understand and manage the complex structure of the engine – all before even seeing it in person.

Included in the brief is an overview of warranty coverage for that particular asset, including what's covered and what isn't. Based on these insights, the technician can automatically add the customer's asset to a service campaign due to its retirement status as a replacement may be needed in the near-term.

While onsite for the service call, the technician fixes the overheating issue and discusses the potential options for a replacement with the customer.

Once the job is complete, an AI-generated job summary is created and saved as part of a work order. The work order then becomes a part of the asset's record to help inform future actions needed to proactively maintain the asset.

Take advantage of new revenue opportunities with Salesforce Connected Assets.

Staying ahead of the curve requires more than just cutting-edge machinery and skilled labor. It demands a comprehensive, data-driven approach to asset management that transforms your service operations from reactive to proactive, predictive, and prescriptive.

Salesforce Connected Assets offers manufacturers a powerful suite of tools designed to provide unparalleled visibility and control over their assets. By integrating real-time telematics data with your CRM, Salesforce Connected Assets changes how you monitor, manage, and maintain your equipment. This allows you to:

- Gain a comprehensive view of your assets
- Monitor asset health and performance
- Act on telematics data in real time
- Drive proactive maintenance

This integrated, data-driven approach not only improves operational efficiency, but also helps open new avenues for growth with the opportunity to use this data to offer subscription-based service packages. With Salesforce Connected Assets, manufacturers can stay ahead of the competition, ensuring that their assets are always performing at their best and their customers are always satisfied.

Ready to learn more?

Elevate your manufacturing operations with Asset-Centric Service

Discover how Connected Assets integrate into a comprehensive service approach for better results.

GET THE GUIDE