

Sunbelt Rentals Transforms Its Business with IoT-Optimized Fleet Management

Excavating Value from Operational Data

With a fleet of more than 600,000 assets made by hundreds of different original equipment manufacturers (OEMs), Sunbelt Rentals was adept at managing their equipment and data. However, they recognized that significant efficiency gains would come from unifying their systems and data. Focused on innovation and operational excellence, Sunbelt Rentals leveraged ThingWorx to aggregate all their existing Internet of Things (IoT) data in the cloud, opening the door to a telematics portal and significant improvements across their fleet operations.

Sunbelt Rentals is an innovative rental solutions and service company

Headquartered in Fort Mill, South Carolina, Sunbelt Rentals offers a full range of rental equipment to customers across a variety of industries. Sunbelt Rentals' North American operations extend throughout the United States and Canada, where more than 15,000 employees help drive an annual revenue of over \$6 billion. Sunbelt Rentals' customers are primarily other businesses who need equipment for construction, facilities maintenance, events, disaster relief, and specialty uses like film production.

Sunbelt Rentals' business depends on their workforce efficiently delivering rental services with their fleet of assets. Worth over \$10 billion, their fleet is made up of a wide variety of equipment from many different suppliers, including aerial work platforms, forklifts, earth moving equipment, pump and power generation, scaffolding, contractor tools, climate control and HVAC equipment, and more. This rental equipment provides a reliable alternative to ownership for customers, delivering the high performance associated with specialized equipment without the capital expenditure.



"Our mission is to help our customers build a case for better ways of doing business. Renting equipment is a reliable alternative to ownership. By renting, they can allocate capital into areas other than buying equipment which they might need only 30% of the time. When we're successful in this, the world will have to produce less equipment because the world will need less equipment," says Katy Godwin Lovering, the vice president of operational excellence at Sunbelt Rentals.

Dedicated to continuous improvement, Sunbelt Rentals is embracing digital transformation in order to optimize their own operations, deliver the best customer experience, and ensure customers unlock value from renting equipment instead of owning it.

Data-driven insights would significantly improve fleet management

Given their commitment to innovation, Sunbelt Rentals had incorporated connected equipment throughout their fleet. However, because their fleet was composed of over 600,000 assets made by different OEMs, they struggled to manage data pulled from many different OEMs and third-party IoT data providers. As a result, it was challenging to unlock the true value of the data, because Sunbelt Rentals teams had to use several different applications and systems to register and monitor the health of assets.

Sunbelt Rentals recognized that if they unified and leveraged data from all of their assets in a single aggregated platform, they could unlock insights that would drive significant operational improvements. One of the largest areas of


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opportunity was in service operations and unifying the over 4,000 technicians in Sunbelt Rentals' workforce with the right equipment telematics data at the right time. Putting equipment health data in the hands of their technicians decreases the amount of time it takes to diagnose and repair equipment while improving the quality of the work.

As an example, locating and picking up assets from large job sites was a time-consuming and costly task. Conservatively, Sunbelt Rentals estimated they lost an hour every day at each branch due to locating and picking up an asset. With thousands of pieces of equipment needing pickup every day, multiplied by the cost of trucks, the ability to locate and retrieve equipment faster would significantly improve fleet utilization and generate time savings for drivers.

Other opportunities to improve efficiency included off-rent equipment—equipment used by clients after a rental period because it hadn't been picked up yet—and equipment damaged from improper use. By empowering Sunbelt Rentals employees to recognize these conditions in real time and manage assets from a central location, Sunbelt Rentals would greatly reduce costs and increase workforce efficiency.

All together, these factors would contribute to improving asset utilization and equipment uptime for customers, creating a better customer experience. “Across our fleet and operations, we knew that if we could enable more actionable insights from the data that would translate into better operations and an improved end-customer experience,” says Lovering.



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Sunbelt Rentals partnered with KPMG and PTC to bring their vision to life

With a clear vision for a single, aggregated IoT platform that empowers drivers and operational teams, Sunbelt Rentals partnered with KPMG to find the right technology for their business requirements. KPMG proved to be essential partners with deep insight into strategy and implementation. For example, Sunbelt Rentals began the initiative by exploring pre-built platforms from specific OEMs, but KPMG helped them see they should own and operate their own OEM-agnostic platform.

“By bringing in KPMG when we did, they brought not just leadership experience, but experience with successful implementations. Being able to bounce ideas off them cut an exceptional amount of time from our implementation and made the end product that much stronger,” says Brad Coverdale, the vice president of fleet and product support at Sunbelt Rentals.

Together, KPMG and Sunbelt Rentals decided that PTC's ThingWorx was the ideal Industrial Internet of Things (IIoT) platform for the initiative. ThingWorx is a powerful IIoT solution that fuels asset monitoring and automation scenarios by connecting, collecting, and analyzing data across assets. It provides the flexibility that Sunbelt Rentals needs to connect a wide variety of legacy machines and systems, and it offers a broad set of capabilities and integrations that open the door to leveraging PTC products like Vuforia augmented reality solutions in the future.

Sunbelt Rentals chose to use ThingWorx on the PTC Cloud, simplifying solution administration. The PTC Cloud allows Sunbelt Rentals to reduce administrative burdens and hardware costs—enabling them to speed time to value and focus resources on high-value business opportunities.

Because Sunbelt Rentals can connect more assets and grow storage requirements as necessary, ThingWorx in the PTC Cloud provides a seamless path to scale.

The Sunbelt Rentals Telematics Portal, built on ThingWorx, normalizes data on a single platform

Leveraging ThingWorx, Sunbelt Rentals aggregated all of their fleet's telematics data onto a single platform and made it available through the Sunbelt Rentals Telematics Portal and other integrated applications. ThingWorx ingests IoT data from disparate sources, standardizes it, and gives drivers and operational teams across North America access to asset data in real time.

"The magic of IoT is that it's an integrator of data. Our strategy is to keep our team members in a single pane of glass from an experience perspective. Bringing together hundreds of brands and thousands of models with wildly different configurations was necessary to accomplish that," says Lovering.

As the project kicked off, all the teams expected to work face to face onsite. However, when COVID-19 made travel and in-person meetings difficult, all three teams were able to pivot and complete the project virtually. Due to the resilience and commitment of Sunbelt Rentals, KPMG, and PTC, initial rollout of the application happened in six months: they began the project in December 2019 and the solution went live in July 2020. Sunbelt Rentals started by connecting 30–40K assets, but they saw value in the platform almost instantly and decided to speed up the retrofitting of existing assets.

The Telematics Portal enables powerful fleet optimization use cases

The Telematics Portal and the underlying normalized data has paved the way for powerful fleet optimization use cases. Locating remote assets was the clear low-hanging fruit that would quickly deliver immense value for Sunbelt Rentals. They call this their "dots on a map" use case, or the geolocation of assets. Now, when drivers show up to a site to pick up an asset, they can check their mobile logistics app, which is fed by ThingWorx, to see the latitude and longitude of the



asset, as well as other metrics like fuel usage. This puts data in the hands of drivers and gives them real-time information when they need it.

Sunbelt Rentals has experienced significant adoption of the “dots on a map” use case internally, driving the desire for more capabilities from the field. Already, they’ve increased asset availability by reducing the time it takes to pick up equipment and generated significant cost savings and efficiency gains by reducing the time drivers spend looking for assets. By making more equipment available to customers more quickly, they’ve also facilitated a better customer experience. Data-driven insights have greatly improved fleet uptime and availability, contributing to a better customer experience by helping them get the utilization they expect.

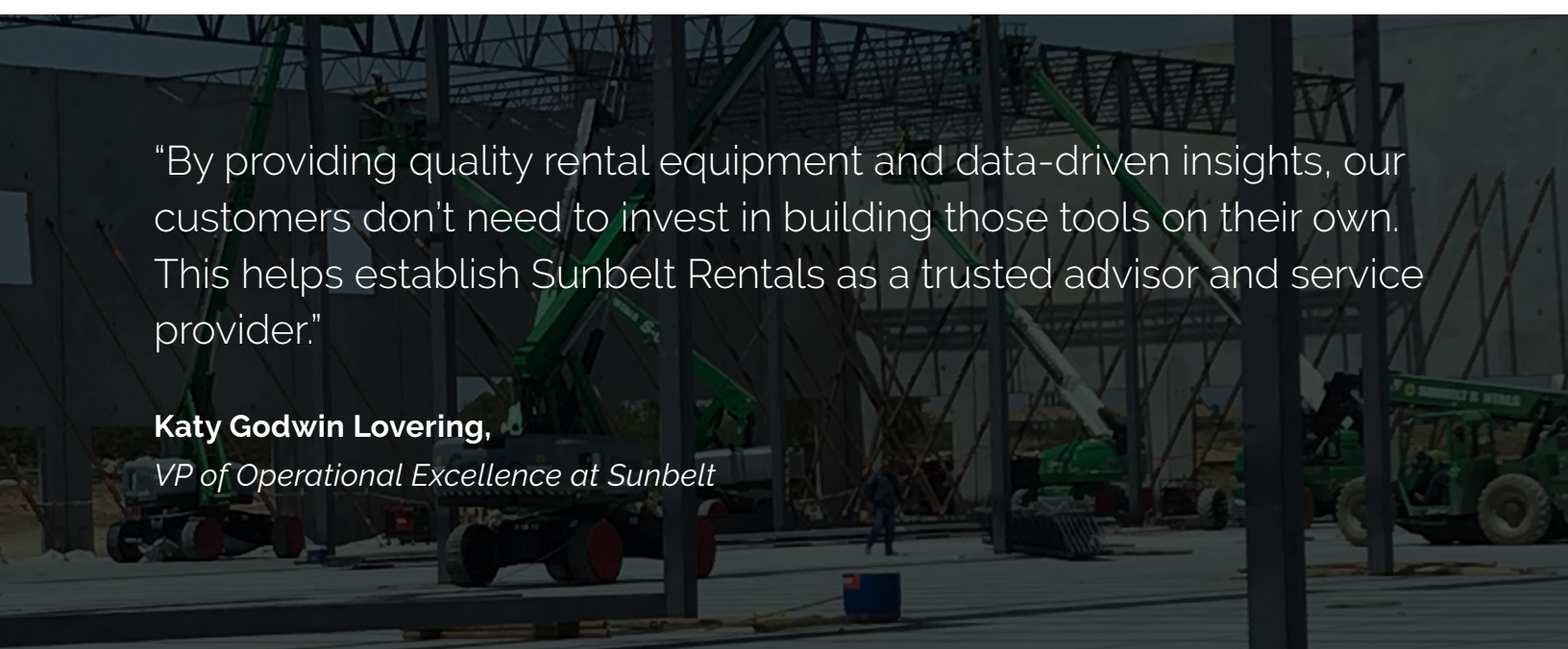
Sunbelt Rentals leveraged the data in a customer-facing application as well

The solution started with an internal focus, but Sunbelt Rentals quickly recognized it had value for customers too. As a result, Sunbelt Rentals

made the ThingWorx data feed available in the customer-facing Command Center application.

When customers log into Command Center, they have access to a Telematics Portal for their rental equipment. They can see location, utilization history, reports, and more, enabling them to make data-informed decisions. The most common customer use case is similar to “dots on a map,” a geolocation use case that helps them locate equipment quickly and remotely. For example, one customer located lost light towers in a hurricane-affected zone without dispatching any Sunbelt Rentals personnel.

The customer-facing application improves the customer experience and helps reduce customer capital expenditures (CapEx). “The customer-facing portal helps customers improve their operations in so many different ways. By providing quality rental equipment and data-driven insights, our customers don’t need to invest in building those tools on their own. This helps establish Sunbelt Rentals as a trusted advisor and service provider,” says Lovering.



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Sunbelt Rentals is planning to expand their IoT-enabled use cases

With several impactful use cases already under their belt, Sunbelt Rentals is looking to expand the use of their Telematics Portal, increase adoption throughout the business, and move the solution into the UK market. In terms of future use cases, they will increasingly introduce data into their service operations platform more robustly and expand their customer-facing applications.

One near-term use case is leveraging IoT data for remote diagnostics. Sunbelt Rentals plans to use data to solve issues or breakdowns remotely, instead of sending a technician to the field. This will save time and fuel, reduce work hours for technicians, and get customers to solutions faster than ever before.

Connecting and empowering humans is another top priority, giving their drivers and workforce more insights and opportunities to leverage data. Road vehicle fleet technology is also a focus, which can be expanded with cab cameras and driver behavior management software. In terms of operational enhancements, Sunbelt Rentals plans to use IoT to help streamline workflows to simplify solutions and increase the convenience of the rental transaction.

As they explore these use cases and expand adoption, Sunbelt Rentals are excited to see what the future holds. The IoT platform has laid the foundation for countless digital transformation initiatives, and with KPMG and PTC as partners, the sky is the limit for Sunbelt Rentals.



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