Parker Mobile IoT

OEM Meets Global Demand with an Integrated, Single-Source Hydraulics/Mobile IoT Solution

The Challenge

A mobile equipment OEM was looking for a mobile IoT solution with seamless, single-source, hydraulics system management to simplify inventory requirements and ensure dependable international support while providing customers with real-time data on hydraulics-related functions.

The Parker Approach

The Internet of Things (IoT) was once primarily associated with electrical technology. No more. For the heavy equipment industry, digitization has become increasingly important. For more than 100 years, Parker solutions have enabled customers across industries to take advantage of the countless technology leaps and advancements that have been made in manufacturing, including innovations in nearly every manmade machine that moves, from the tanks that helped win World War II to space exploration vehicles.

Parker's experience developing highly engineered components and systems, combined with its expertise in electronic controls and IoT, enables its OEM customers to store, manage and analyze equipment data seamlessly.

The Parker Mobile IoT solution works by creating a digital link from traditional on-machine networks to a secure Parker cloud, and then presenting information that is branded and customized to meet each customer's specific requirements. Its easy-to-configure digital interface provides full visibility and advanced insight.

This OEM considered several other IoT platforms prior to deciding to leverage its existing partnership with Parker to create a unified platform to centralize data collection and enable easy exchange of real-time information across various pieces of equipment.

The Parker solution integrated Mobile IoT with Parker IQAN service tools, over-the-air (OTA) updates and remote monitoring and diagnostics, in addition to its hydraulic control programming. With these robust functionalities, the OEM can remotely monitor the condition of its assets in real time, receive customizable alerts, quantify asset utilization, track and locate its assets on a global scale, and manage software updates seamlessly.

The accessibility of real-time data has increased efficiency and reduced costs by enabling proactive diagnosis of mechanical issues for reduced downtime and increased service and parts opportunities. Additional savings have been achieved through energy cost reduction. In addition, the Parker Mobile IoT solution provides the OEM with data trends; that data is now driving initiatives to lower battery



demand, reduce standby/idle drain, decrease connector size and reduce harness American Wire Gauge (AWG) requirements for current capacity and weight, all the while streamlining inventory requirements.

Parker's ability to provide continuous support throughout the implementation phase, including training to help drive organizational change on a global scale, was of major benefit to this OEM and one of the major reasons Parker was chosen over competitors unable to provide such comprehensive support. By partnering with a global leader in hydraulics systems and controls, this mobile equipment OEM not only benefited from Parker's leading engineering expertise and awardwinning focus on innovation, scalability and reliability for the hydraulics industry, but also gained access to an IoT solution that enhanced visibility into equipment performance, driver habits, accident detection and more.



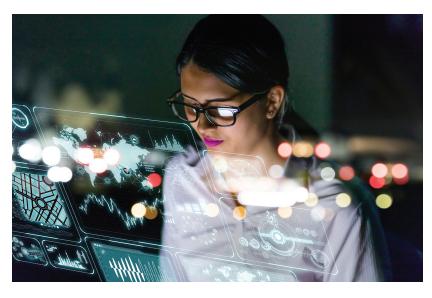
Customer Outcomes

This successful OEM/Parker partnership has resulted in:

- An approximately 65 percent reduction in tire replacement costs
- The elimination of DEF pump failures through proactive monitoring of the fluid levels
- A 20 percent reduction in fuel consumption from long-term idling
- A 100 percent ROI within 18 months!

"Our customers tend to be heavy-duty types—steel mills, ports, concrete users, railroads, sawmills, the wood industry—these 24-hour-a-day operations that can't afford to have a machine down. Any type of information you can offer the customer to keep their machines running is a real advantage... The main reason we partnered with Parker was because they provided an entire team of experts in all the necessary specialties to get this project done."

Product Manager



"A customer called us up and said 'This is a great tool. I love looking at it, but can you put the depth level gauge on my home screen?' I said, 'Let's call and find out,' and you guys did it!"

Sales Manager

"We have a lot of customization that goes on with the trucks... the customer wants to track pick counts or containers in ports so they know exactly how many moves they've made a day, or they want us to integrate weight scales... Where Parker's solution takes a step forward is it can be remotely

monitored from the fleet manager's position. They can see whatever system they have on the truck whenever they need to see it."

Product Manager

"This one customer had eight machines. He was burning up his DEF pumps constantly. What burns your DEF pump is when the operator doesn't fill the DEF tank when he should. Now, when it gets down to a quarter of a tank, he gets an email and he takes care of it. He has not burned up a single death pump since."

Sales Manager



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