

FEATURED APPLICATION

Parker Hannifin Introduces SCOUT™ Technology

CASE STUDY

THE COMPANY

Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial, and aerospace markets. Parker's team of highly qualified engineers are working on the forefront of innovation for the markets they serve through the use of the Parker SCOUT™ cloud remote condition monitoring platform.



THE BUSINESS CASE

Parker has an extensive history of providing innovative fluid handling solutions to customers in a broad range of industrial markets and applications from automotive manufacturing to commercial refrigeration. Parker engineers are continually looking for ways to integrate new technologies and increase customer value.

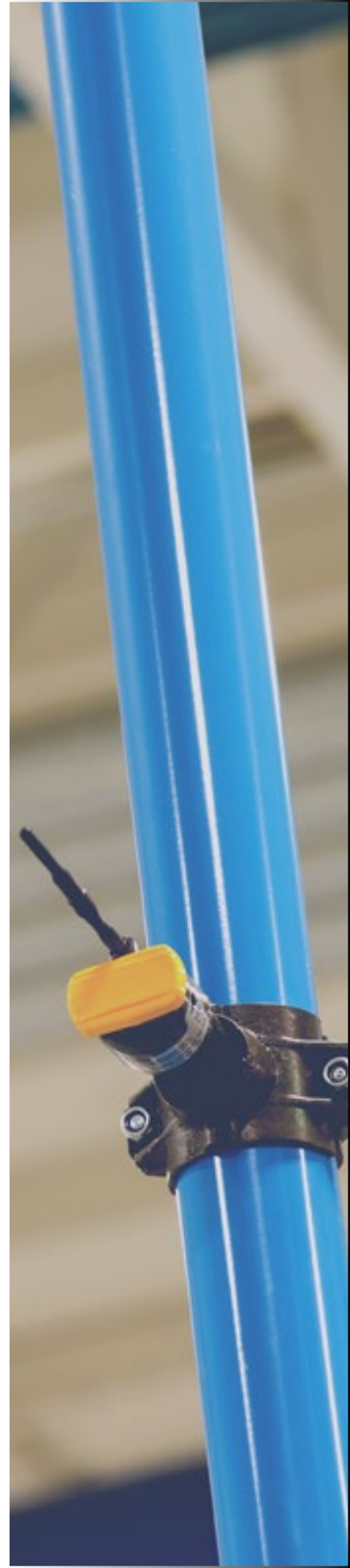
Pulling in expertise from across Parker, a team was formed to develop a wireless remote condition monitoring solution for industrial applications. Parker's innovative compressed air piping system, Transair® (www.parker.com/transair), was chosen as the initial host product. Still, Parker wanted the ability to apply a common cloud-based remote monitoring platform across many more applications, but needed a partner who could scale a production platform with the degree of customization required for Parker's broad industrial customer base.

Parker partnered with Exosite for its ability to provide reliable connectivity, application flexibility, and a scalable cloud-based infrastructure. Exosite and Parker developed a real-time condition monitoring solution that includes multiple modes of data visualization, as well as trending and alarm notices, for the initial industrial compressed air piping application that is easily customizable to other applications.

THE OPPORTUNITY

Compressed air is often called the fifth utility. It is a significant expense in manufacturing facilities, and efficiencies can be quite low. Some of the causes of inefficiency include: air leaks, improperly sized pipe, poor compressor operation, over-pressurization, insufficient air storage, improper uses of compressed air, and inadequate maintenance of point-of-use filtration and connections. Inconsistent compressed air quality is also a contributing factor to downtime, scrap, and equipment problems within a manufacturing facility.

Many manufacturing facility managers cite the reliability of compressed air systems as a major concern, even more than the compressed air system operating costs. Parker had a unique opportunity to create a solution that would help facility managers understand their compressed air systems' key performance so that they could efficiently manage and optimize this critical system.

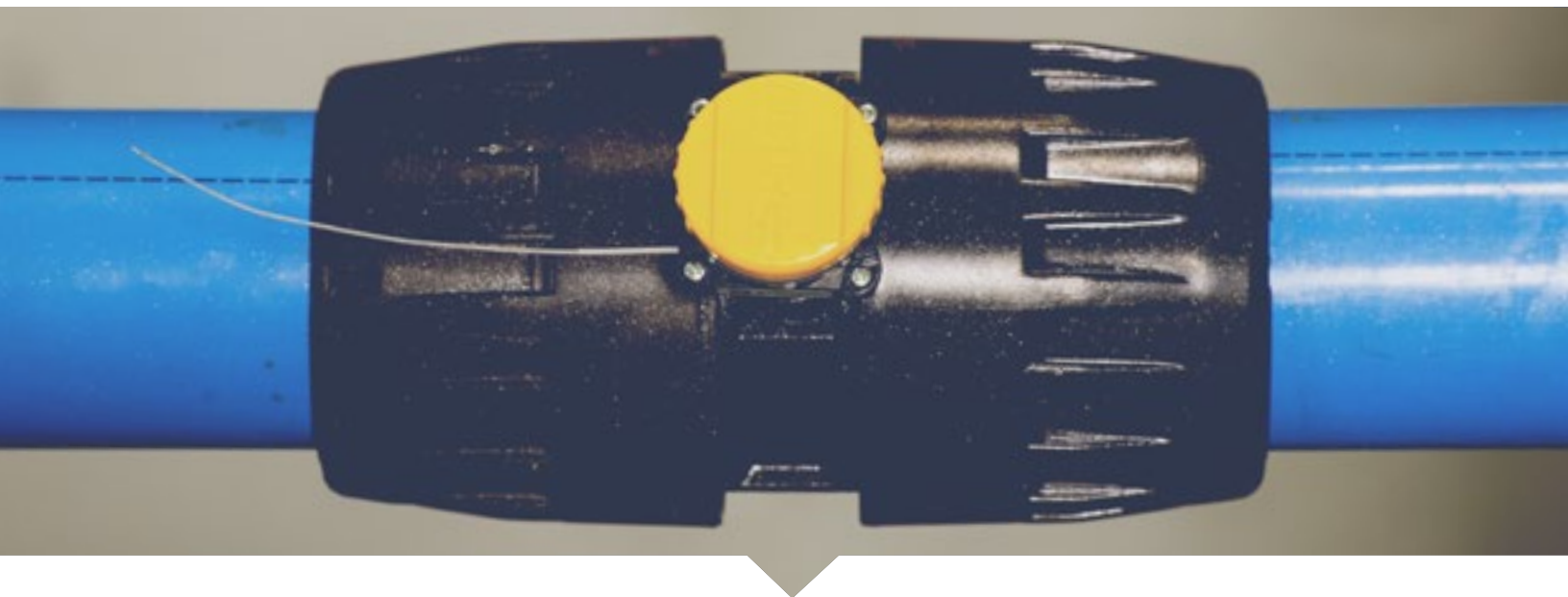


THE SOLUTION

The experienced project managers and programmers from the Exosite Professional Services team worked with Parker to quickly deliver a system design specification, a proof-of-concept, and ultimately a production-ready system with the functionality and feature set that met Parker's industrial customers' needs.

The first end application of the Parker SCOUT™ cloud condition monitoring solution was remotely monitoring industrial compressed air systems. Referred to as Transair® powered by SCOUT™ technology (www.parker.com/transair), this novel solution uses a suite of





power-efficient, Parker SensoNODE™ wireless sensors to monitor pressure, flow, humidity, temperature, and power associated with a compressed air system. The wireless sensor information is sent to a gateway device specifically designed for the Internet of Things applications. The gateway receives and transmits the data to the Exosite platform, where streaming analytics are used to process the data for near real-time alerts and visualization of key compressed air system parameters. Customers access their data through a convenient and secure web-based interface. With the ability to set custom alerts, view and analyze historical data, and access their system information anywhere, facility managers are able to better manage and optimize their compressed air systems to reduce downtime, rework, scrap, and energy costs.

THE RESULTS



INCREASED EFFICIENCY, DECREASED DOWNTIME THROUGH IoT

Plant managers are now able to understand what is going on INSIDE their compressed air piping and take action to rectify symptoms quickly and efficiently.



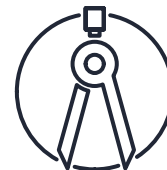
ENABLED ADDITIONAL SERVICES AND RECURRING REVENUE

SCOUT condition monitoring enables Parker to provide product services beyond the initial sale of the pipe, creating a win-win scenario for both them and their customers.



DIFFERENTIATED PARKER AS A MARKET LEADER IN INDUSTRIAL COMPRESSED AIR PIPING

As one of the first in the industry to offer a wireless condition monitoring solution, Parker can leverage the power of SCOUT technology to differentiate Parker's Transair compressed air piping products from the competition.



CREATED BLUEPRINT FOR PARKER HANNIFIN'S SUCCESS IN THE INDUSTRIAL IoT MARKET

By partnering with Exosite, Parker Hannifin has a proven, scalable IoT foundation that can be leveraged by the entire organization to reduce the time and money needed to take future connected products to market.

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