



PROJECT REFERENCE

ATLAS COPCO

**ATLAS COPCO
EMPOWERS
HEALTHCARE AND
INDUSTRIAL USERS
TO REMOTELY
MANAGE 150,000
AIR COMPRESSION
SYSTEMS**



FACTORIES, POWER PLANTS, AND HOSPITALS ALL AROUND THE WORLD RELY ON ATLAS COPCO'S AIR COMPRESSION SOLUTIONS. FOR MANY BUSINESSES, THESE COMPRESSORS ARE MISSION CRITICAL—SO RELIABILITY AND EFFICIENCY ARE TOP PRIORITIES. THAT'S WHY ATLAS COPCO EMPOWERS CUSTOMERS WITH A REMOTE MONITORING SERVICE, SO THEY CAN TRACK THE STATUS OF THEIR COMPRESSORS AT ALL TIMES. AND AS THE HOMETOWN MONITORING PLATFORM REACHED ITS LIMITS, ATLAS COPCO KNEW THAT A TECHNOLOGY REFRESH COULD HELP IT PAVE THE WAY FOR EVEN SMARTER FACTORY MANAGEMENT.

While the applications for the compressors are varied, almost all customers have one thing in common—the need for absolute reliability. In many cases, organisations depend on their compression systems for the smooth running of their core operations, so the solutions must work effectively and safely at all times. What's more, compressors are notoriously power-hungry, so it is important that customers can optimise energy efficiency. With that in mind, Atlas Copco's Compressor Technique Service (CTS) division developed its own IoT platform, SMARTLINK, for remotely monitoring every compressor it has produced, wherever it is in the world. This platform enables customers

to monitor the status of their compressors at all times. It provides early warnings for potential faults, as well as energy utilisation reports that drive efficiency improvements.

The foundations for SMARTLINK were developed in-house years ago, well before IoT technology even started to gain mainstream traction. And since then, Atlas Copco has continued to build on the platform—but it had reached the point where the solution had become unwieldy to manage, slow, and confusing for end-users. The company set its sights on modernising the IoT platform, aiming to give customers easier access to more useful data that could help drive the factories of the future. Partnering with Microsoft and OrangeNXT, Atlas Copco successfully rebuilt its remote management platform on the Azure cloud. And the new system is transforming the customer experience by putting clear, actionable insight at decision-makers' fingertips.

OUTGROWING AN AGING PLATFORM

After years of ad hoc development, Atlas Copco's original IoT platform was struggling to keep pace with modern demand, as Bob Rigouts, Product Manager for Connectivity at Atlas Copco, explains: "The multiple layers of code had become like spaghetti: nobody knew how it all worked. And since it was initially created by engineers for engineers, the user experience was lacking. It offered data visualisation, but information was spread across different portals and customers struggled to understand what the system was showing them." On top of all this, the platform was fast approaching its technical limits—as the userbase continued to grow, there might soon have been a risk that the system would simply collapse under the load. Atlas Copco knew that it

had an opportunity to improve the user experience and deliver greater value to its customers, so it resolved to redesign the remote monitoring platform with agility and usability at its core.

REBUILDING SMARTLINK IN THE CLOUD

"We began looking around for partners that could help us rebuild the whole system," continues Bob Rigouts. "It was difficult to find partners that were able to support such a complex use case, but our search eventually led us to Microsoft and OrangeNXT." As a Microsoft partner and specialist IoT system integrator, we (OrangeNXT) proposed a complete solution based around Microsoft Azure PaaS services.



Moving to the cloud would enable Atlas Copco to take advantage of all of the latest IoT innovations in a highly scalable, agile, and cost-effective environment. As well as the complete architecture, design, and realisation of the SMARTLINK IoT platform, we provided an agile development (DevOps) team, and a complete, managed and hosted service once everything was up and running—minimising the maintenance burden for Atlas Copco's internal engineers, and enabling them to focus on further enhancing the platform.

DRIVING STABILITY AND EFFICIENCY WITH ACTIONABLE INSIGHTS

The new, modernised SMARTLINK is giving customers unprecedented insight into the status of their compressed air solutions. It is boosting reliability by enabling proactive maintenance, and it is helping businesses cut operating costs through improved energy efficiency. "We want to make it easy for customers to see how the installation is performing, and how usage changes from one period to another," says Bob Rigouts. "We implemented intelligent health checks that provide recommendations to improve efficiency and reliability. The new platform won't just flag warnings, it will make suggestions and prompt

OUR SOLUTION ARCHITECT JACO OSKAM, EXPLAINS WHY AZURE WAS THE BEST FIT:

"HORIZONTAL SCALABILITY WAS A KEY REQUIREMENT. THE VOLUME OF ANTICIPATED IOT ACTIVITY WAS SIGNIFICANT IN THIS CASE - ALREADY WE HAVE AROUND 150,000 CONNECTED DEVICES GLOBALLY, GENERATING SOMETHING LIKE 130 MILLION MESSAGES PER DAY, AND WE EXPECT SIGNIFICANT GROWTH IN THE FUTURE."

appropriate action: which could be something straightforward that customers can do themselves." For internal staff, integration between the new monitoring platform and the company's ERP and CRM systems enables a richer and more holistic view of client accounts, helping customer service teams deliver a more effective, tailored customer experience. And at the same time, clearer insight into the performance of compressors in the field empowers Atlas Copco's product teams to identify opportunities for improvement without having to call on data scientists.

"We see our new SMARTLINK platform as an enabler of many things, rather than an end point," concludes Bob Rigouts. "We are working on many initiatives in our core business and in after-market services—from providing technical support, to selling parts and services, and other new solutions. In short, the new platform will strengthen our customer relationships by enabling our best work." Jaco Oskam adds: "The new SMARTLINK IoT Solution removes concerns around scalability and stability, allowing Atlas Copco to connect more machines than ever before. And by exposing rich information about the health of those machines, the platform will support the development of new data-driven services, improve product development, and enhance customer satisfaction."

MORE INFORMATION?

To learn more about conNXT and its capabilities, feel free to contact us at any time - you will find our contact details below. Start monitoring your data today!



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