BAUMÜLLER SYSTEMS FOR PREDICTIVE MAINTENANCE WANTED TO RUN ON LOCAL INDUSTRIAL PCs. TO BE ABLE TO CENTRALLY MONITOR MACHINES FROM DIFFERENT MANUFACTURERS, BAUMÜLLER WANTED TO BRING THE SYSTEM INTO THE CLOUD. THE NEW BAUDIS IOT HAD TO BE FLEXIBLY SCALABLE AND CONVINCING IN TERMS OF DATA SECURITY.

THE SOLUTION: BAUMÜLLER OPTED FOR TELEKOM’S PUBLIC CLOUD SOLUTION AT THE HANNOVER MESSIE INDUSTRIAL TECHNOLOGY TRADE FAIR. BAUDIS IOT PROJECT MANAGER NORBERT Süß THOUGHT THE COMPANY’S OFFER WAS THE RIGHT FIT. NOW THE COMPANY IS USING THE IT RESOURCES FROM THE OPEN TELEKOM CLOUD AND COMPANIES ALWAYS HAVE AN EYE ON THE MACHINES.

THE ADVANTAGES: THANKS TO THE OPEN TELEKOM CLOUD’S EASY SCALABILITY, BAUMÜLLER CAN INTEGRATE NEW MACHINES INTO THE SYSTEM AT ANY TIME. USERS ARE NO LONGER RELIANT ON INDUSTRIAL PCs; BAUDIS IOT CAN BE INSTALLED IN THE MACHINERY REGARDLESS OF MANUFACTURER AND YEAR OF MANUFACTURE.

FROM ROBOT DRIVES TO MARINE ENGINES: THE GLOBAL PLAYER BAUMÜLLER SPECIALIZES IN AUTOMATION AND DRIVE SYSTEMS. THE FAMILY-OWNED COMPANY DEVELOPS INTELLIGENT SYSTEM AND SOFTWARE SOLUTIONS AT 40 LOCATIONS WORLDWIDE.

SINCE 1998 THE GLOBALLY ACTIVE COMPANY HAS BEEN OPERATING THE BAUDIS DIAGNOSTIC SYSTEM, WHICH ENABLES BAUMÜLLER AND ITS CUSTOMERS TO MONITOR MACHINES AROUND THE CLOCK: WITH INDUSTRIAL PCs AND SENSORS ON THE MACHINES, THE SYSTEM PREDICTS ANY DEFECTS BEFORE THEY OCCUR. IF A MEASURED VALUE EXCEEDS A CERTAIN THRESHOLD, BAUDIS WARNS IN GOOD TIME. THIS ENABLES COMPANIES TO INTERVENE IN A TIMELY MANNER, PLAN MAINTENANCE MEASURES MORE EFFICIENTLY AND MINIMIZE DOWNTIMES.

December 2022

Baumüller GmbH

MACHINE MAINTENANCE FROM THE CLOUD

From robot drives to marine engines: The global player Baumüller specializes in automation and drive systems. The family-owned company develops intelligent system and software solutions at 40 locations worldwide.

Since 1998 the globally active company has been operating the BAUDIS diagnostic system, which enables Baumüller and its customers to monitor machines around the clock: With industrial PCs and sensors on the machines, the system predicts any defects before they occur. If a measured value exceeds a certain threshold, BAUDIS warns in good time. This enables companies to intervene in a timely manner, plan maintenance measures more efficiently and minimize downtimes.

Baumüller was looking for a way to monitor machines – regardless of the year of manufacture or manufacturer – not just with a local industrial PC but from any company location. Networking the machines via a cloud seemed ideal. BAUDIS IoT – as the system is called today – now runs in the Open Telekom Cloud.
THE CUSTOMER: BAUMÜLLER

Baumüller is a leading manufacturer of electric automation and drive systems. The internationally active company works on intelligent system solutions at 40 locations worldwide. The company has its own systems house, “Baumüller Anlagen-Systemtechnik,” which supplies it with suitable hardware and software components. It was here that the global player developed the BAUDIS diagnostic system back in 1998, which enables companies to monitor their machines and detect impending faults in good time, even before they lead to malfunctions.

THE CHALLENGE

Previously, BAUDIS was based on industrial PCs – permanently installed computers at the companies’ locations for the monitoring of their machines. Baumüller wanted to also be able to network machines worldwide. For example, to enable a textile manufacturer to support its employees in the United States with remote maintenance. That’s why project leader Norbert Süß was looking for a way to bring BAUDIS into the cloud. “We needed a strong partner for data protection and data security,” says Süß. The new solution had to be flexibly scalable so that Baumüller could link new machines with the cloud at short notice.

THE SOLUTION

“The Open Telekom Cloud seemed exactly right for us,” says Süß. With BAUDIS IoT, Baumüller has been bringing its customers’ machines into the cloud since April 2017: The information from the machine sensors is collected in a retrofittable hardware box that transmits it to the cloud via WLAN, LAN or LTE. This allows companies to monitor the condition of their machines and analyze their performance in order to become more productive through fewer breakdowns and more efficient maintenance. And regardless of the manufacturer of the machines or year of manufacture – BAUDIS IoT can be integrated into existing or new systems.

An example: In the past, production robots were simply replaced after a fixed number of operating hours had expired. The data analyses from the cloud show, however, that in many cases an exchange is not even necessary. With the help of BAUDIS IoT, customers can keep a central overview of the load on the robots across all locations. As a result they are only replaced when they are really fully worn out.

THE CUSTOMER BENEFITS

Thanks to the cooperation with Deutsche Telekom, the long-established company now has flexible IT resources at its disposal to network and centrally manage any number of machines worldwide at any time. Customers can retrieve machine data online from the cloud, regardless of their location. With the data analysis, they can compare the operating conditions and capacity utilization of the machines at the various locations. BAUDIS IoT warns in good time before malfunctions occur. The platform is operated in Telekom’s highly secure data centers.

Baumüller has also networked its own machines via the Open Telekom Cloud. “This solution enables our customers to better plan maintenance measures and increase machine runtimes,” says Süß. “And since we now regulate a lot of things flexibly and individually for each customer via the public cloud solution, in many cases technicians don’t even have to be deployed. That saves a lot of time and money.”

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PUBLISHED BY:
Telekom Deutschland GmbH
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