Forming technology meets edge computing

Schuler and German Edge Cloud start a strategic cooperation

German Edge Cloud (GEC), which specialises in edge and cloud systems, is cooperating with Schuler, a machine and plant building company. In this context, Schuler is offering a track-and-trace solution for press plants within the Digital Suite, based on technology from German Edge Cloud. The Schuler Digital Suite with the "track-and-trace application powered by GEC" is being used, among other things, in the Smart Press Shop, a joint venture between Schuler and Porsche.

Eschborn/Frankfurt, 10. August 2021 – The ability to trace components, driven by the automotive and aircraft industries, is rapidly gaining in importance. Through their cooperation, Schuler and German Edge Cloud are combining expertise in forming technology with skills in edge and cloud technology to achieve greater transparency and networking in production and across the entire value chain. This joint solution is already being employed in a pilot project: Smart Press Shop GmbH & Co KG, a joint venture between Porsche and Schuler AG with a fully networked press shop in Halle an der Saale, Germany, which is being used for the flexible production of body parts for Porsche and other producers.

"With our data-driven press shop and the associated Schuler Digital Suite track-and-trace system, we are responding to our customers' call for easy-touse total solutions," explains Domenico Iacovelli, the Schuler Group's CEO. As a companion on the path to digitalisation, the company is thus ensuring complete transparency in production: "In the event of any product recalls, for example, the entire supply chain can be traced – without any gaps – and the cause of the fault can be quickly identified."

GEC supplied a central software module for the track-and-trace system while Schuler is also developing additional modules based on the "user-centred design" approach. The front end can be run on various mobile devices. This allows the two companies to optimally pool their resources.



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"Both Schuler and the Friedhelm Loh Group with German Edge Cloud are driving innovation in industrial SMEs," says Professor Friedhelm Loh, owner and CEO of the Friedhelm Loh Group. "Together, we are now combining state-of-the-art press technology with future-oriented edge and cloud expertise from a single source to achieve added value for our customers."

Track-and-trace meets edge cloud appliance

German Edge Cloud brings its many years of expertise in the development and project planning of integration projects in manufacturing to the new collaboration and future-oriented industrial solutions based on Premise Edge ONCITE. One key benefit for users is full data ownership and sovereignty so that expertise and critical production data remain in the right hands. Furthermore, the track-and-trace system is compatible with the public clouds of major OEMs as well as hybrid clouds, such as the private Schuler Cloud.

Complete proof of quality

The joint solution from Schuler and German Edge Cloud is designed for complete production traceability. One key component is a track-and-trace system that guarantees full traceability within production processes, based on consistent data.

The track-and-trace system provides quality data and it enables continuous production status queries and full transparency of the current production process, among other things. Furthermore, parts can be identified rapidly in the event of a fault.

The scalable "Track & Trace powered by GEC" solution, which runs on Schuler systems and other presses, results in specific added value in quality, scalability, cost efficiency, and transparency during production. In the first stage, the application enables traceability. In the future, it is also to be designed for connection to such overarching systems and programs as SAP ERP and it will form the basis for artificial intelligence (AI) for production optimisation.

Implementation on a greenfield site: the "smart press shop."

The joint track-and-trace solution from Schuler and German Edge Cloud is already being tested in the Smart Press Shop, an intelligent, fully networked press shop for the flexible production of car body parts. The plant was built on a 13-hectare site in Halle an der Saale and started operation this June.

The project aims to raise to a new level the production efficiency and digitalisation of important process stages in automotive production for forming technology. In addition, shorter logistics routes reduce production-related carbon emissions and will, eventually, permit a "zero impact factory". Parts are pressed and assemblies are manufactured for Porsche and other brands of the Volkswagen Group in the Smart Press Shop. Other OEMs are expected to follow suit.

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Caption(s)

Image 1: Prof. Friedhelm Loh, owner and CEO of the Friedhelm Loh Group. (Source: German Edge Cloud GmbH & Co. KG)

Image 2: Domenico Iacovelli, CEO of the Schuler Group. (Source: Schuler Group)

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About German Edge Cloud

German Edge Cloud (GEC), a member of the Friedhelm Loh Group, specialises in innovative edge and cloud computing. GEC solutions enable the rapid, simple and secure availability of data in connected environments. They support process optimisation, for instance in manufacturing, by empowering data analytics, and guarantee customers complete control over their data when using public or private clouds. German Edge Cloud GmbH & Co. KG

GEC is a developer and service integrator for turnkey solutions, offering both its own and sector-specific systems. The company already deploys its solutions at the Industry 4.0 factory of sister company Rittal in Haiger. German Edge Cloud integrates and operates hybrid private edge-cloud infrastructures.

Its offerings include infrastructure as a service (IaaS), platform as a service (PaaS), and industry-specific applications as software as a service (SaaS). As a founding member of the Gaia-X Foundation, German Edge Cloud seeks to establish interoperable platforms with minimal customer lock-in.

German Edge Cloud is a member of the owner-operated Friedhelm Loh Group. The group successfully operates 12 production facilities and 94 subsidiaries worldwide. It had 11,600 employees and posted revenues of Euro2.2 billion in fiscal 2020.

More information:

www.gec.io and www.friedhelm-loh-group.com

About the Schuler Group

Schuler offers customized first-rate technology in all areas of forming – from the networked press to press shop planning. In addition to press, our product includes automation and software solutions, dies, process know-how and service for the entire metalworking industry. Our customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance and electronics industries. Press from the Schuler Group mint coins for more than 180 countries. When it comes to the digital transformation of the forming technology, we support our customers worldwide as a supplier of innovative system solutions. Founded in 1839 with headquarters in Göppingen, Germany, Schuler has about 5,000 employees at production sites in Europe, China and America, as well as service companies in more than 40 countries. The company is part of the international technology group ANDRITZ.

More information:

www.schulergroup.com