

› **Cross-factory monitoring using IoT**

# Use Case

## Cross-factory monitoring using IoT in machine industrial production sites

The aim of this project was to introduce cross-factory monitoring using an IoT bundle consisting of hardware, software and knowhow — while reducing both the reaction time and downtime of the machines.

A lack of transparency, late reactions to downtimes, throughput losses, etc. lead to double-digit percentage underproduction in many conventional production sites. Leveraging this potential and successively realizing higher yield requires the integration of a wide range of data sources and analysis of the information obtained - flexibly and in real time.

### The project

- › Increase shop floor transparency and reduce reaction time and downtime

### susietec® products

- › KBox A-250
- › FabEagle®Connect
- › FabEagle®Monitoring

### The service

- › Proof of concept with implementation of existing systems and modeling in FabEagle®Monitoring, factory-wide rollout

### The challenge

- › Lack of production transparency and central data collection
- › Lack of connectivity
- › Outdated machines

### The solution

- › Analyze the existing plant and develop concept for connectivity
- › Choose KBox A-250 as an IoT box with various interface solutions for the machines (large variance in OPC/UA integration on newer systems through to collecting digital signals from field I/Os)
- › Create information models and map to the machine information available
- › Implement the different protocols flexibly in FabEagle®Connect and standardize the information model including the interface to FabEagle®Monitoring
- › Configure FabEagle®Monitoring including asset monitoring
- › Install IoT on five different types of machine
- › Improve graphical evaluations and adjustments on dashboards
- › Plan and execute the factory-wide rollout

### The result

- › Agile introduction of an IoT solution based on flexible standard products in less than six months
- › Rapid launch of the proof of concept
- › All relevant machines are monitored in FabEagle®Monitoring after roll-out with data collection and storage
- › Significant reduction in response times in the event of failures and problems

# ” Cross-factory monitoring using IoT in machine production plants ”

## Technical details of the project

The analysis of the machine park revealed a high variance of available interfaces, ranging from modern protocols such as OPC/UA to the complete lack of suitable protocols. The FabEagle®Connect Connectivity Suite offers the largest library of available interfaces combined with the option of pre-processing the data obtained from each machine and integrating it into a uniform information model.

The industrially tested and flexibly expandable KBox A-250 serves as the IoT box, which supports the FabEagle®Connect Suite at the factory and provides a secure, high-performance and scalable field component on an industrial scale. This allows production systems to be modeled in the best possible way and integrated into the higher level data collection and monitoring system. FabEagle®Monitoring offers a wide range of options for quickly evaluating statuses, alarms, messages and process values and presenting them clearly in dashboard solutions.

## Advantages for the customer

The IoT bundle consisting of KBox A-250 and FabEagle®Connect offers customers a fast and integrated approach to meet and optimally implement the broad requirements for the interfaces. Both the hardware and integration suite as well as the associated services come from a single source.

The wide range of protocols and know-how allow a quick and secure approach. The integration of FabEagle®Monitoring also provides all the functions required for comprehensive machine monitoring, including all necessary KPIs, charts and evaluations.

In an agile roll-out, the entire factory can be connected step-by-step to the solution while continuously optimizing information and data quality. Customers can already expect a significantly improved response time in the event of failures and greater transparency from the moment the very first machine is integrated. Ongoing analysis and improvement of machine availability also permanently increases the utilization rate and output.

## Customer key figures

- Reduce response time in the event of failures by 50 percent
- Increase utilization rate through continuous analysis and improvement of machine availability
- Permanently increase yield by 10 percent
- Fast implementation time of less than six months

## About susietec®

We see digital transformation as a holistic approach. With the susietec® Toolset, we support companies in recognizing the potential of IoT and digitization: The combination of software, hardware and know-how enables functional and smart solutions for equipment suppliers, providers and manufacturers. That is how we succeed in implementing purposedriven changes effectively – with the aim of driving forward digitization in the long term. susietec® solutions can be used in an existing environment and also provide a basis for the new development of machines, components and production plants.

As part of the Kontron Group, we help you take the decisive steps towards digital transformation using our experience from numerous digitalization projects.

For more information, please visit:  
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