Industrial Connectivity Services

Use cases

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Use case 1:
Connecting machines of all ages

Drivers

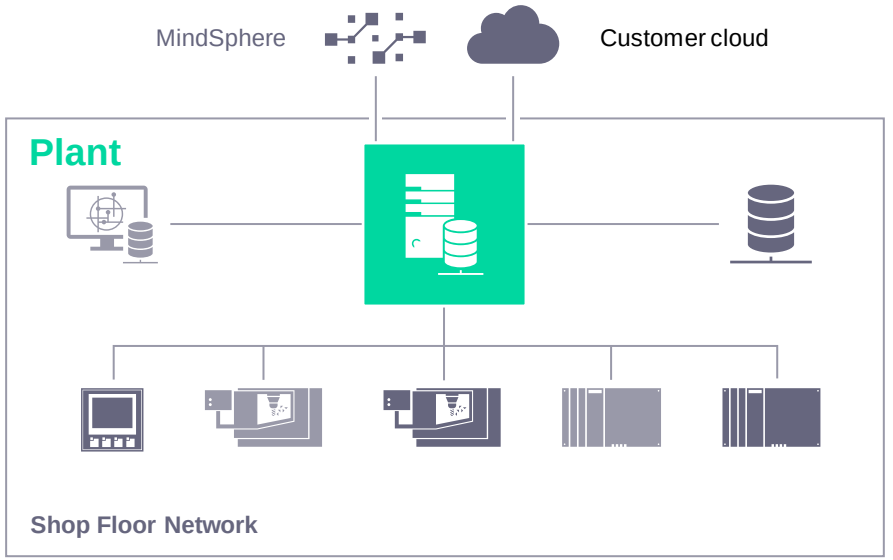
Identified use cases only work and deliver the promised benefit if all assets are connected

Solution

Industrial Connectivity Services integrate the data of all assets into the software utilized in use cases

Goal

Connect any asset on the shop floor no matter how old



Benefits

No limitation regarding the age of an asset

Data access to all assets on the shop floor

Any use case can be implemented without restrictions

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Use case 2:
Energy transparency and savings

Drivers

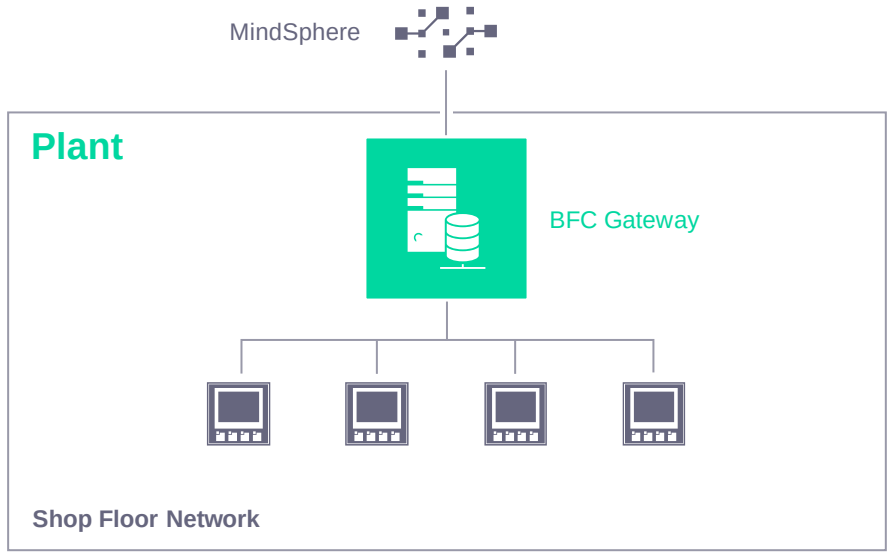
Creating transparency of energy consumption within the plant

Solution

Measuring the energy consumption of various machines within the plant and forwarding the result to a MindSphere app where the results are analyzed

Goal

Energy efficiency improvement by making data visible



Benefits

Unnecessary energy consumption becomes transparent

Wasted energy can be avoided

Energy consumption can be optimized

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Use case 3:
Resource availability and efficiency

Drivers

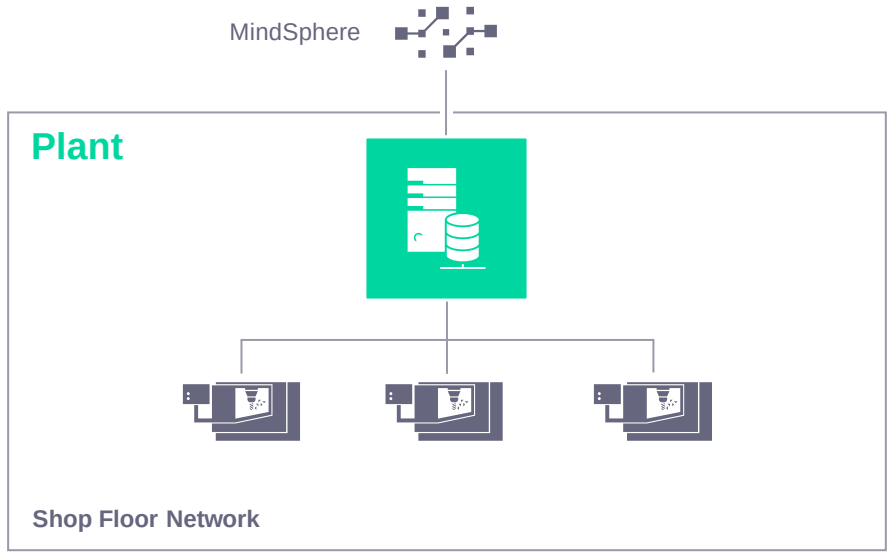
Increase in tool efficiency and availability

Solution

Industrial Connectivity Services provide tool data to a MindSphere app where an event and cause analysis will be conducted

Goal

Tool usage improvement



Benefits

Increase transparency within the production process

Increased tool availability

Increased efficiency

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Use case 4:
Closed-loop production

Drivers

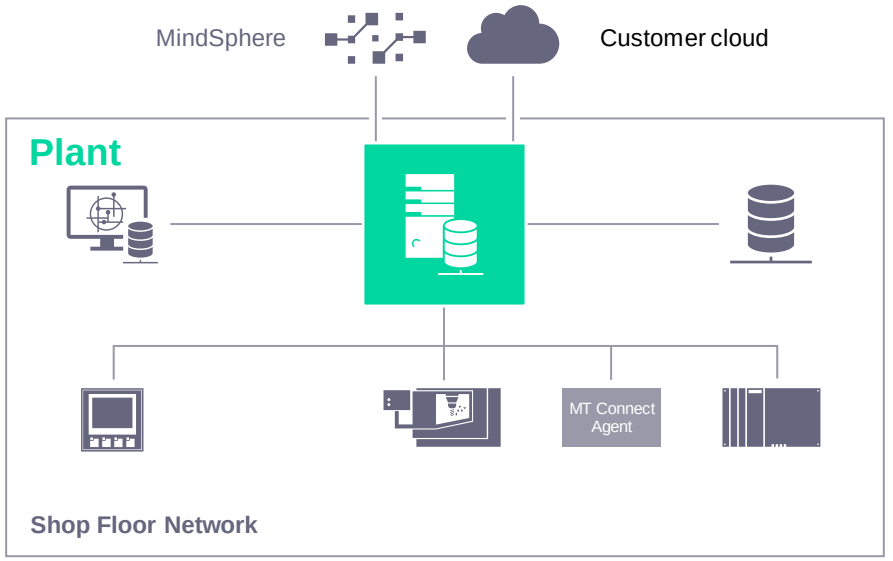
Transparency on shop floor production and shorter time to market for engineers to order products

Goal

Closed-loop production for improved production planning

Solution

End-to-end IT infrastructure integrating digital applications from order entry to production



Benefits

Improve production quality and minimizing production time

Reduce manual effort through digitalized production planning

Generate blueprint for holistic OT/IT integration

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Use case 5:
Test with Artificial Intelligence

Drivers

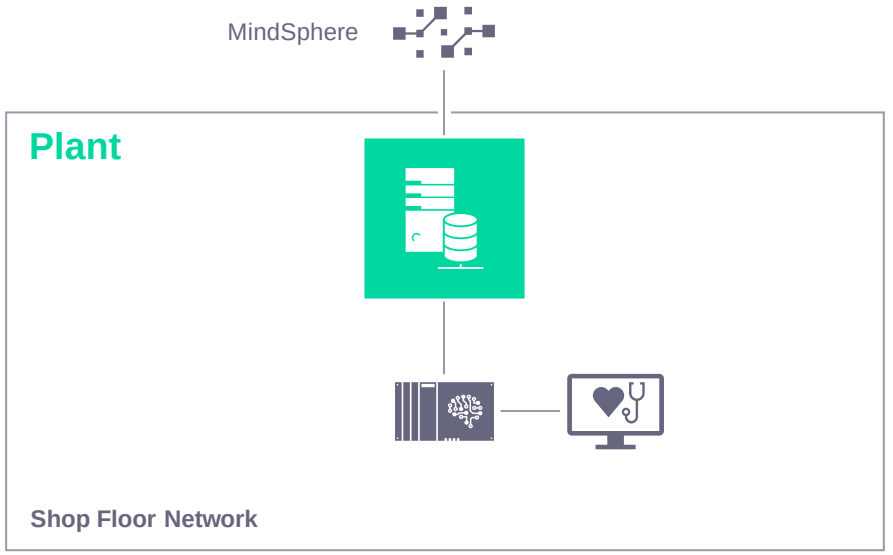
Increase first pass yield
and reduce manual effort

Goal

Closed-loop production for
improved production planning

Solution

Using Artificial Intelligence (AI) to reduce pseudo errors at Automated Optical Inspection (AOI) using model-based decisions with visual data from object recognition



Benefits

- Reduced test efforts
- Increased production capacity and planning flexibility
- Reduction of operational expenditures

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Use case 6:
Holistic use of operational data

Drivers

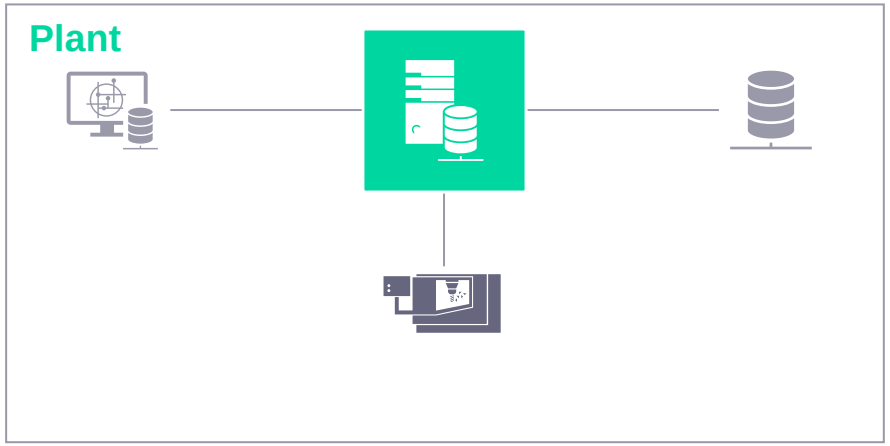
A holistic approach to
a new IT infrastructure

Solution

As part of an IT ecosystem, BFC connects the shop floor to support the process data analysis within the company

Goal

Reduce pseudo errors at
Automated Optical Inspection (AOI)



Benefits

Increase transparency within the production process

Complete networking of existing production machines

Increased productivity

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Use case 7:
Manufacturing Execution

Drivers

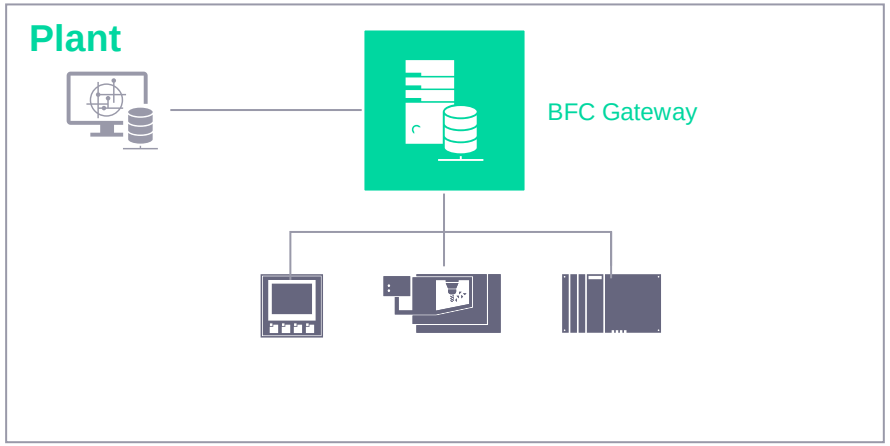
Digital shop floor management between IT/OT level

Solution

Communication concept to exchange production data between a Manufacturing Execution System (Opcenter EX DS) through the BFC to heterogenous shop floor devices

Goal

Stable and reliable interaction through data buffering, handshake mechanism and message execution of predefined data templates for order download, order progress and message transfer



Benefits

Increase transparency within the production progress

Increased productivity

Flexibility in selection of relevant orders

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Industrial Connectivity Services

Benefits

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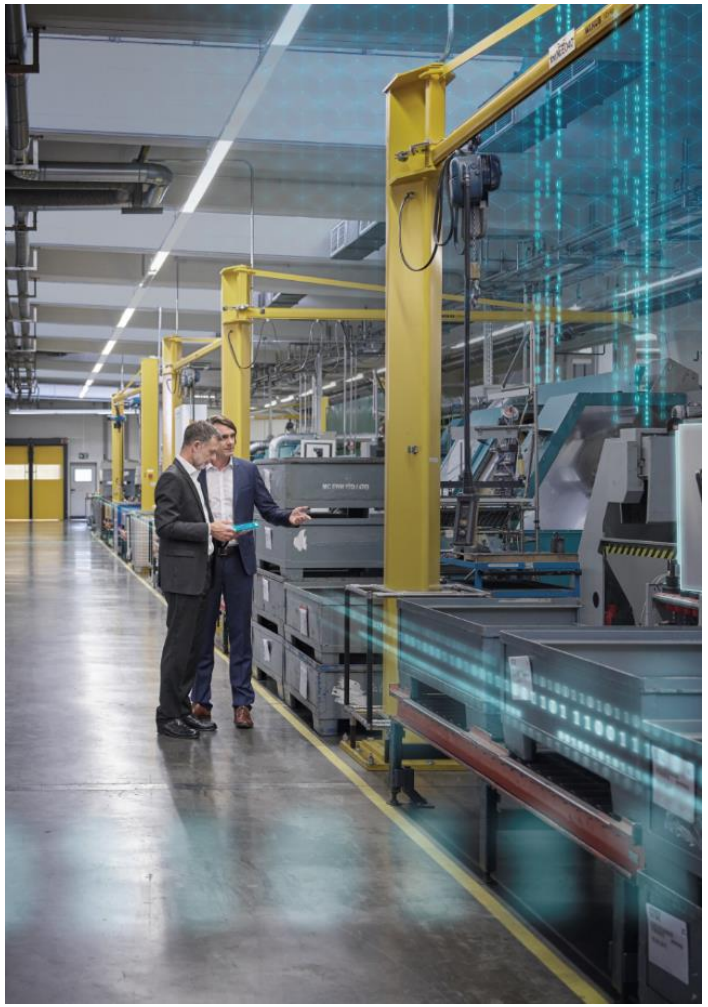
Why should you choose Industrial Connectivity Services?



95% Compatibility to all field devices and software systems

Seamless integration into existing IT infrastructure

Connect anything with everything

Unlimited scalability of connected assets

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