

APP CONTAINER

INTELLIGENT EDGE SOLUTIONS

customer HILSCHER



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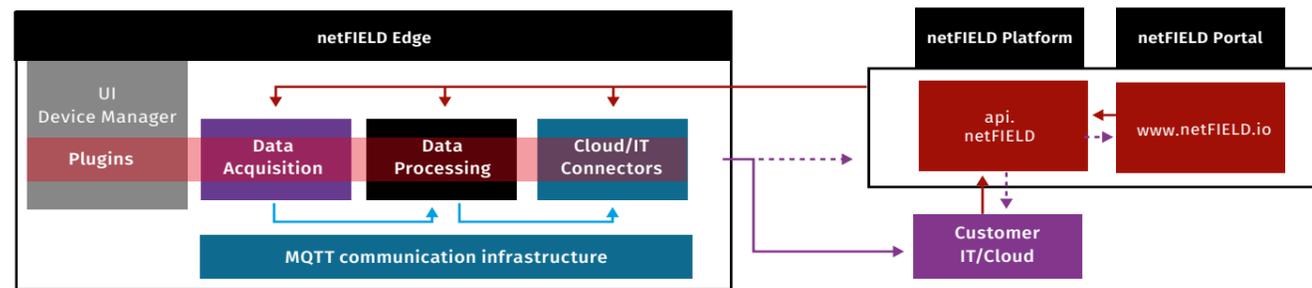
BUILDING A CUSTOMER SOLUTION IS LIKE AN ORCHESTRATION.

A huge choice of available application containers can be networked to complete the customer solution with a minimum of development effort.

Application containers might provide functions for

- Process-, Topology- and Asset Data acquisition from field devices and other data sources
- Data storage, aggregation and filtering
- Cloud-/On-Premise application connectivity and secure data transport

The open **netFIELD** application container reference architecture includes interfaces for the inter-container communication using MQTT. In this way it is possible to distribute overall solution workload over several devices or virtual machines. Additionally an application container may also be equipped with user friendly web application which can be seamlessly integrated as plugin into the Edge Device Manager. The ability to implement methods into an application container, which can be called via the cloud api is completing the reference architecture of a **netFIELD** application container.



READY TO USE NETFIELD APPLICATION CONTAINER

NETFIELD APP PROFINET TOPOLOGY

Make local data centrally available in the **netFIELD** Cloud platform.

- ✓ Transport data from the MQTT communication infrastructure to the **netFIELD** cloud platform API, where this data is exposed as a Web Socket Secure endpoint. You are free to configure which data topics are transported to the **netFIELD** Cloud platform.
- ✓ The configuration can be done locally or remote via the Device Manager provided by **netFIELD** OS.
- ✓ Stream this data into analytics pipelines or realtime dashboards. The firmware update of the **netFIELD** Edge device is also managed by the **netFIELD** Proxy application container.

NETFIELD APP PROFINET DEVICE

Enable a **netFIELD** Edge device to be a field device in a PROFINET network

- ✓ **netFIELD** Edge devices with integrated netX technology can be connected directly to a real time ethernet network. In this case the **netFIELD** Edge device can exchange cyclic IO data with the PLC. Input an output data can be read/write via the MQTT communication infrastructure.
- ✓ The configuration can be done locally or remote via the Device Manager provided by **netFIELD** OS.

NETFIELD APP PROFINET TOPOLOGY

Monitoring of topology and assets connected to a PROFINET network.

- ✓ The **netFIELD** PROFINET Topology application container is able to recognize, which devices including IO-Link sensors are available in the network and knows how they are related to each other.
- ✓ The complete set of asset data and network information is published to the MQTT communication infrastructure on a regular base.

NETFIELD APP PROFINET TAP

Data diode to the field network and data filtering

- ✓ This one-way network connector can be attached without need to change the PLC configuration. The initial configuration is done while the machine will start. In this phase the **netFIELD** App PROFINET Tap is collecting all information about attached devices and IO data exchange between devices and PLC. Each IO data-point of a field device can be selected for publishing it to the MQTT communication infrastructure.
- ✓ The configuration can be done locally or remote via the Device Manager provided by **netFIELD** OS.

MQTT COMMUNICATION INFRASTRUCTURE

- ✓ A further ready to use **netFIELD** application container is the **netFIELD** App MQTT Broker, which can be deployed to any **netFIELD** Edge device running **netFIELD** OS or a virtual **netFIELD** Edge device running **netFIELD** OS for Data-center. So it is possible to provide the MQTT communication infrastructure by one single device. In the case, that an MQTT broker is already available in the network, this broker can be used as MQTT infrastructure for the **netFIELD** application container as well.

NETFIELD APP EDGE MONITOR

Monitor your **netFIELD** Edge device resource usage.

- ✓ Gain health insights and take action based on the acquisition of **netFIELD** Edge device configuration information and resource consumption data. The collected information are published to the MQTT communication infrastructure on a regular base.
- ✓ **netFIELD** Proxy is available and configured to provide these data to the **netFIELD** Cloud platform a data visualization is available in the **netFIELD** Portal.

NETFIELD APP OPC UA CONNECTOR

Connect to and browse multiple OPC UA server of field devices

- ✓ This easy-to-use OPC UA Connector enables the connection to multiple OPC UA capable field devices and is able to automatically browse the complete node tree of any OPC UA Server. Relevant nodes can be selected so that the values can be published in the MQTT communication infrastructure. The configuration can be done locally or remotely via the device manager provided by **netFIELD** OS.

NETFIELD APP AZURE/AWS/GOOGLE CONNECTOR

- ✓ Push selected data streams to the cloud of your choice.
- ✓ Transport data from the MQTT communication infrastructure to the Azure, AWS or Google cloud.
- ✓ The app configuration can be done locally or remote via the Device Manager provided by **netFIELD** OS or **netFIELD** Cloud.



Deploy the ready-to-use **netFIELD** apps together with self-developed containers to your **netFIELD** Edge devices in order to complete high-quality customer solutions.



Article	Order Number	Category	Version	Price / per Edge (EUR)
netFIELD App PROFINET Topology	1917.006			
netFIELD App PROFINET TAP	1917.007	Data Acquisition	1.0.0	
netFIELD App PROFINET Device	1917.004	Data Acquisition	0.9.3	
netFIELD App OPC UA Client	1917.009	Data Acquisition	0.9.1	
netFIELD App Google Connector	1917.003	IT/Cloud Connectors	1.1.0	
netFIELD App EtherCAT Tap	1917.008	Data Acquisition	Q4/2020	
netFIELD App Edge Monitor	1917.005	Data Acquisition	0.9.1	
netFIELD App Azure Connector	1917.001	IT/Cloud Connectors	1.1.0	
netFIELD App AWS Connector	1917.002	IT/Cloud Connectors	1.1.0	
netFIELD App Platform Connector	–	Connectivity	1.1.2	
netFIELD App MQTT Broker	–	Connectivity	1.6.8	
netFIELD App IO-Link Configurator		Connectivity	0.9.1	
netFIELD App OPC UA IO-Link Adapter		Connectivity	0.9.1	
netFIELD App IBH S7 Connector		Data Acquisition	Q4/2020	

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