

presenting

Get connected. Stay connected.™

Automotive



Industrial



IT Networks



Jan.2024
ICM Team

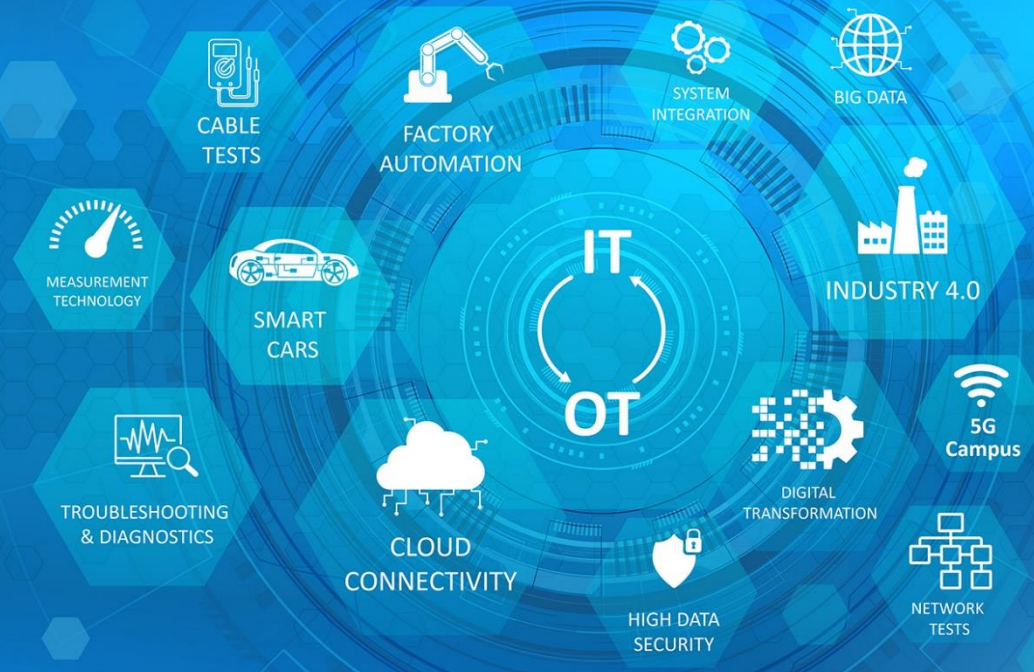
Content



get connected, stay connected

with our **products** for digital data access and provisioning

through our **services** for projects with customer specific requirements



Shareholding Company

Stable revenue and profit growth

+98 M EUR revenue*

3,3 Mio. EUR EBIT (operating) *

Stable equity ratio of 56%*

Long-term oriented shareholder structure

30% of revenue reinvested into R&D

* Reported for 2022



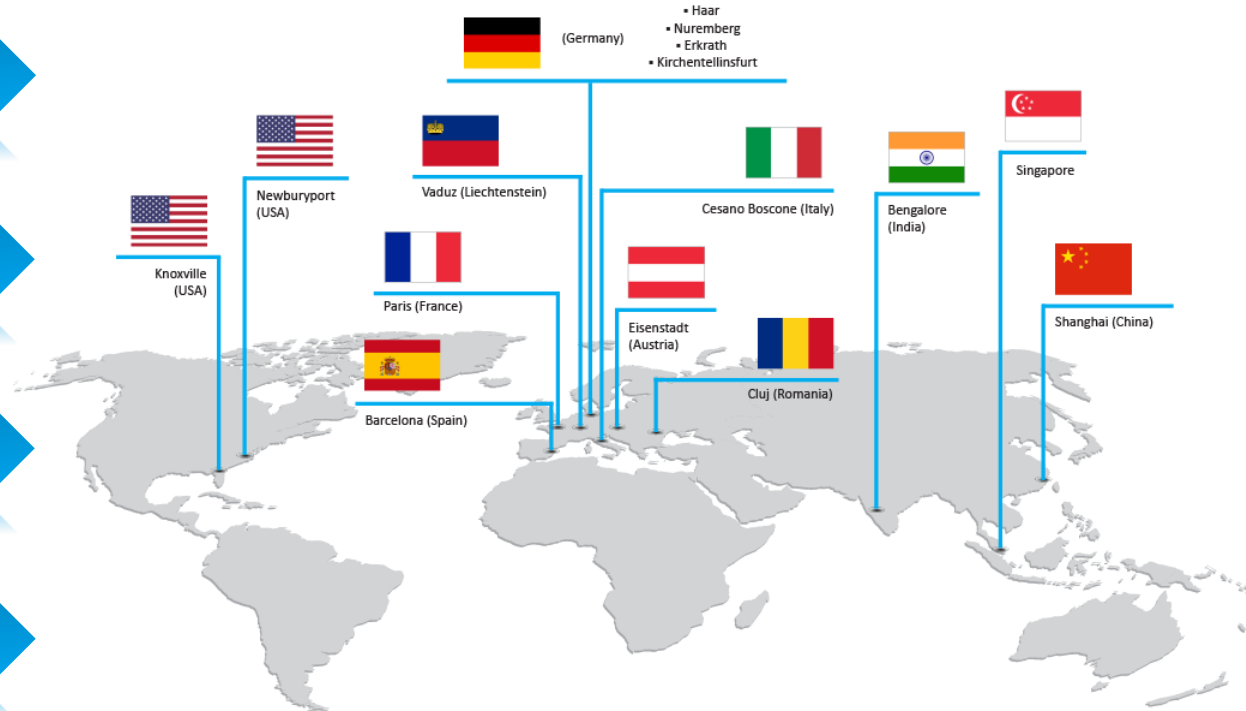
Softing Companies

Founded 1979, Headquartered near Munich

+400 employees

Manufacturing in Germany, USA, Singapore

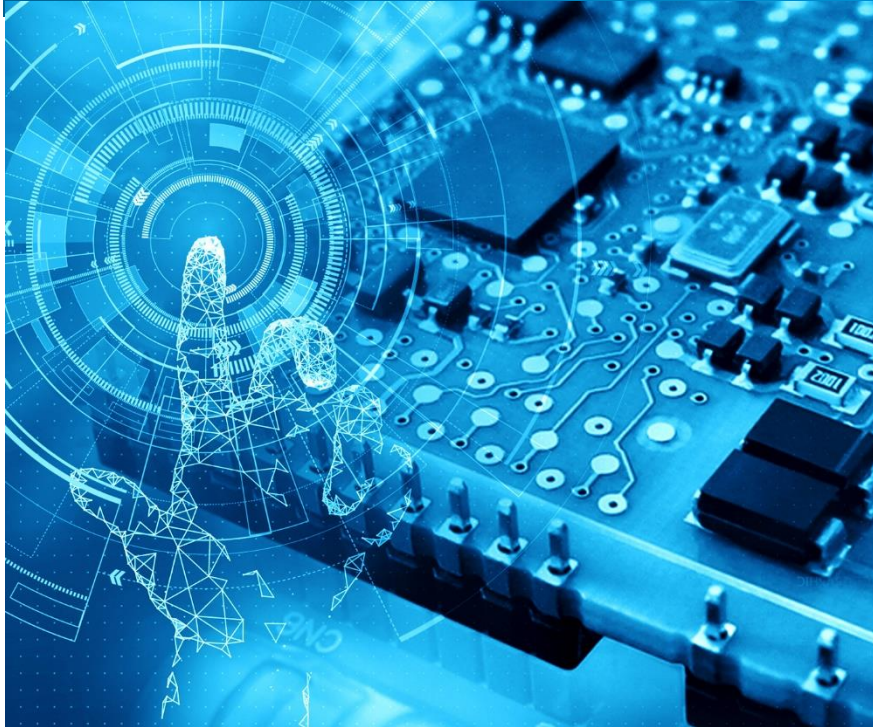
Direct shipment to anywhere in the world



Worldwide Distributor Network



Technologies & Expertise



Products & Solution



Certifications of processes in DEVELOPMENT and PRODUCTION

ensuring equipment working
safely in explosive environments



Safety and Security certifications

- Machine Safety (IEC 61508)
- Security (IEC 62443)

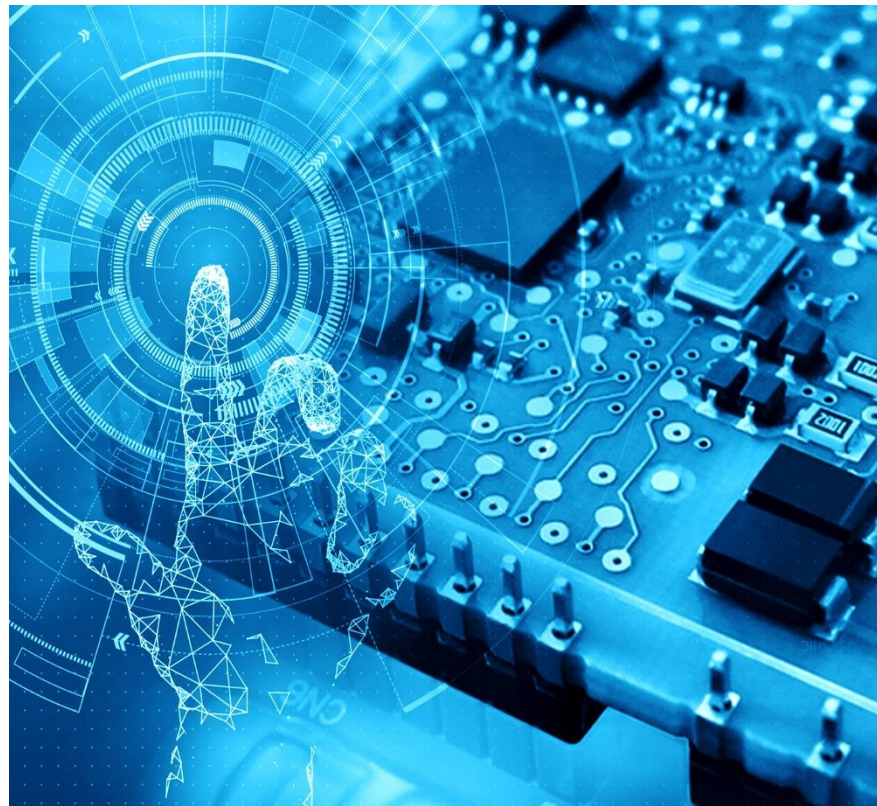


Qualification as supplier to INNOVATIVE customers

ensuring reliable and robust measurement technology
for automotive manufactures, e.g. PORSCHE, AUDI

Certification in the field of IT SYSTEMS

exceeding IEC requirements for verifying,
qualifying and certifying cabling
solutions based on ISO or ANSI/TIA



Softing's Business Units



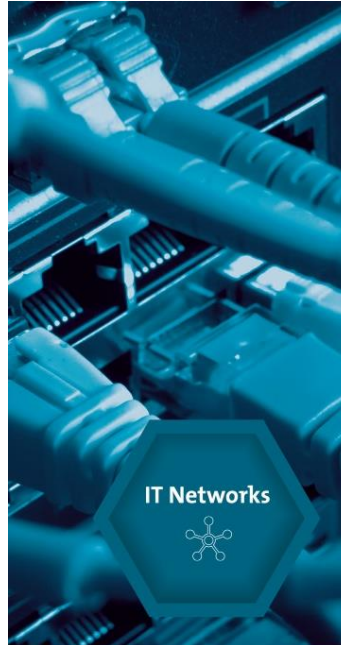
Automotive



globalmatix

CONCEPT THE UNCONVENTIONAL

Solutions for ECU diagnostics, measurement technology and related communications



IT Networks



Measuring devices to test, qualify or certify copper or fiber optic wirings of IT network systems



Industrial



Products and technology solutions for networked industrial production, Industry 4.0 and IoT


We are here

online
development inc

Softing Industrial

optimize!
softing

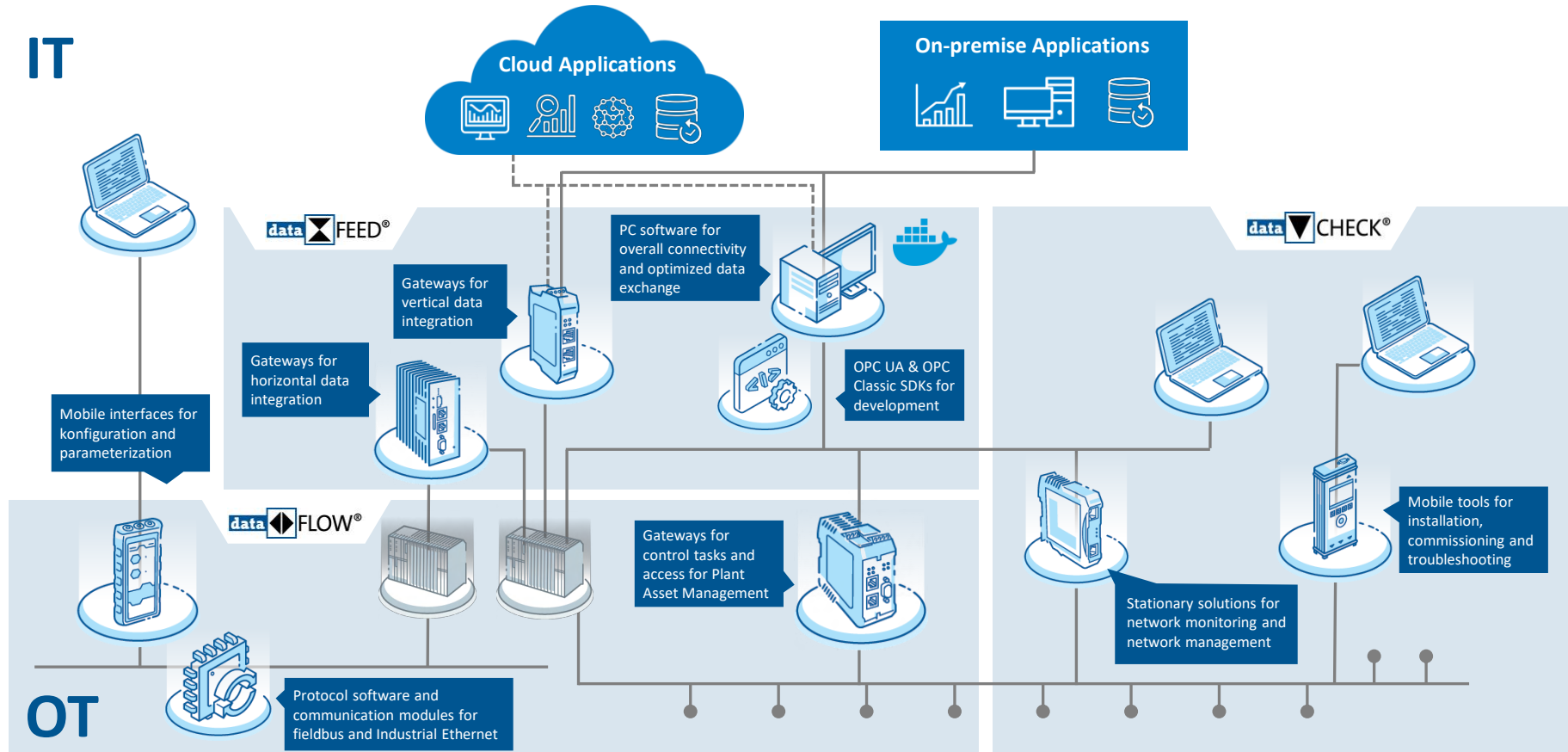
Software and hardware
for the integrated
industrial production



Industrial

Solutions for a reliable horizontal and vertical data exchange

IT



OT

Automation Networks



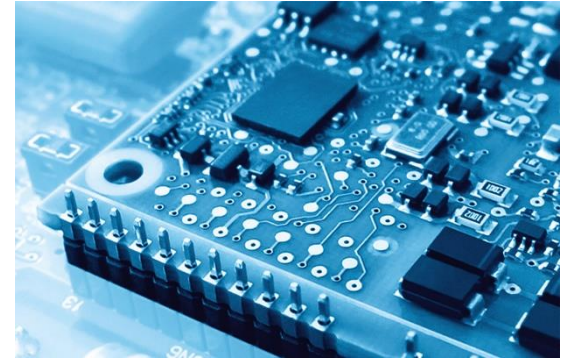
- Machine connectivity for HMI, SCADA, MES, and other applications
- Device connectivity for plant asset management and for control

Industrial IoT



- Machine- and device connectivity for data integration with IoT and cloud platforms
- Integration with IT tools for management and operation

Technology Integration



- SDKs for OPC UA client- and server development
- Boards and communication stacks for field devices

| Customer Applications

- HMI, SCADA, MES, data archiving
- Device parameterization
- Plant Asset Management
- Process control

| Customer Needs

- Connectivity must be easy to use
- Operation by shopfloor personal
- Minimal maintenance efforts in stable solution environment

| SIA Products

- Appliance (hardware) or standard software applications for Linux or Windows PCs
- Built-in graphical user interface



| Customer Applications

- OEE, predictive maintenance, quality assurance
- Machine learning, AI, Analytics
- Process optimization

| Customer Needs

- Applications run on central platform, roll-out across multiple locations
- IT Security
- Connectivity shall be managed by IT

| SIA Products

- Software modules (Container)
- 3rd party integration, via APIs
- Seamless integration with open and standards-based solution architectures



| Customer Applications

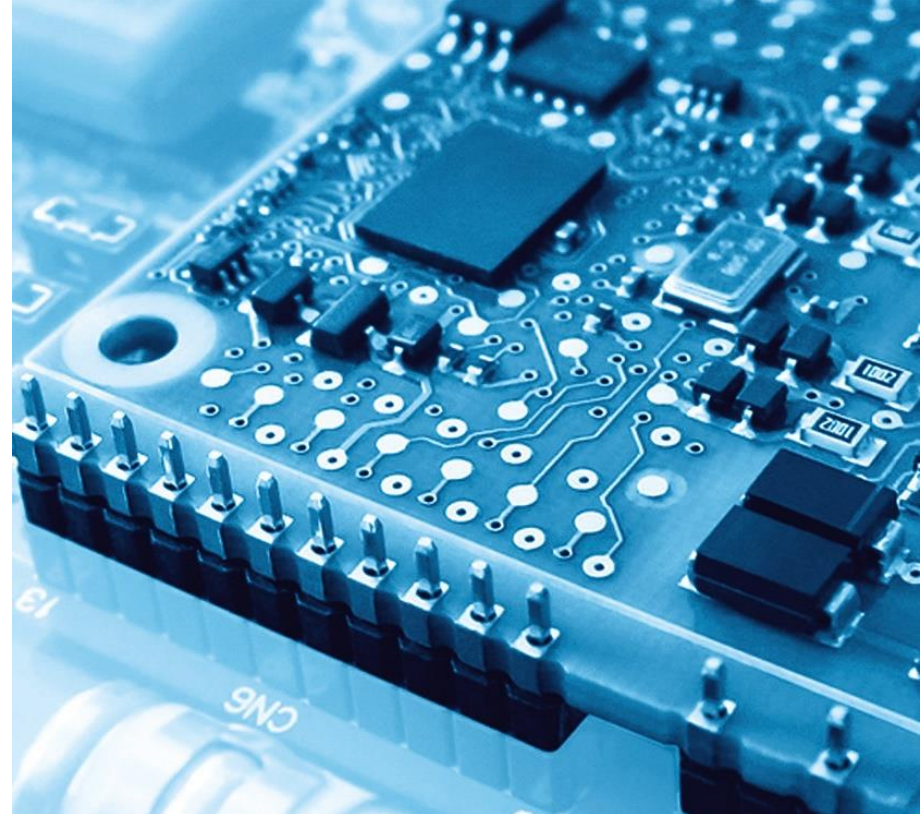
- Field-level communication (PROFINET, PROFIBUS, Ethernet-APL, EtherNet/IP, Foundation Fieldbus, ...)
- OPC UA client- and server development for IoT and other applications

| Customer Needs

- Reduced R&D complexity
- Short time-to-market

| SIA Products

- SDKs (binary and source code)
- Communication stacks
- FPGA IP-cores
- Embedded communication modules





Gateways



OPC & OPC UA Software Platform



Docker Container



USB and Bluetooth Modems



Network Management Tools



Network Testers and Analyzers



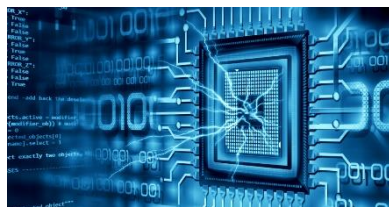
OPC SDKs



PC Interface Cards



Embedded Modules




Protocol Software



Rockwell Module (eATM)



Fiber Optic Media Converters

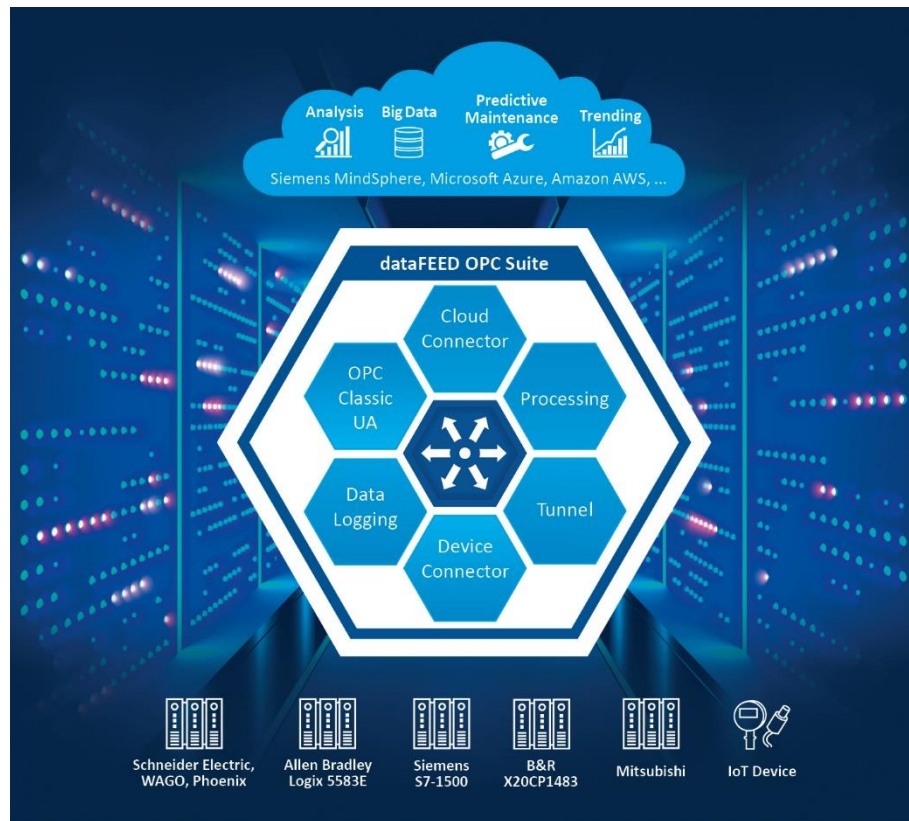


Communication software and gateways to access controller and machine data from applications for production monitoring, production control, production data acquisition, process optimization and IIoT

dataFEED OPC Suite –

Secure and reliable All-in-One solution for OPC communication and IoT cloud connectivity

- Access to process and diagnostic data in controllers of leading manufacturers, including Siemens, Rockwell (Allen Bradley), B&R, Mitsubishi
- Flexible and simple manipulation of the data, including LUA script support
- MQTT, MindConnect and REST gateway for integrating production data in IoT Cloud and Big Data solutions, e.g. Microsoft Azure, Amazon AWS and Siemens MindSphere
- Easy to use



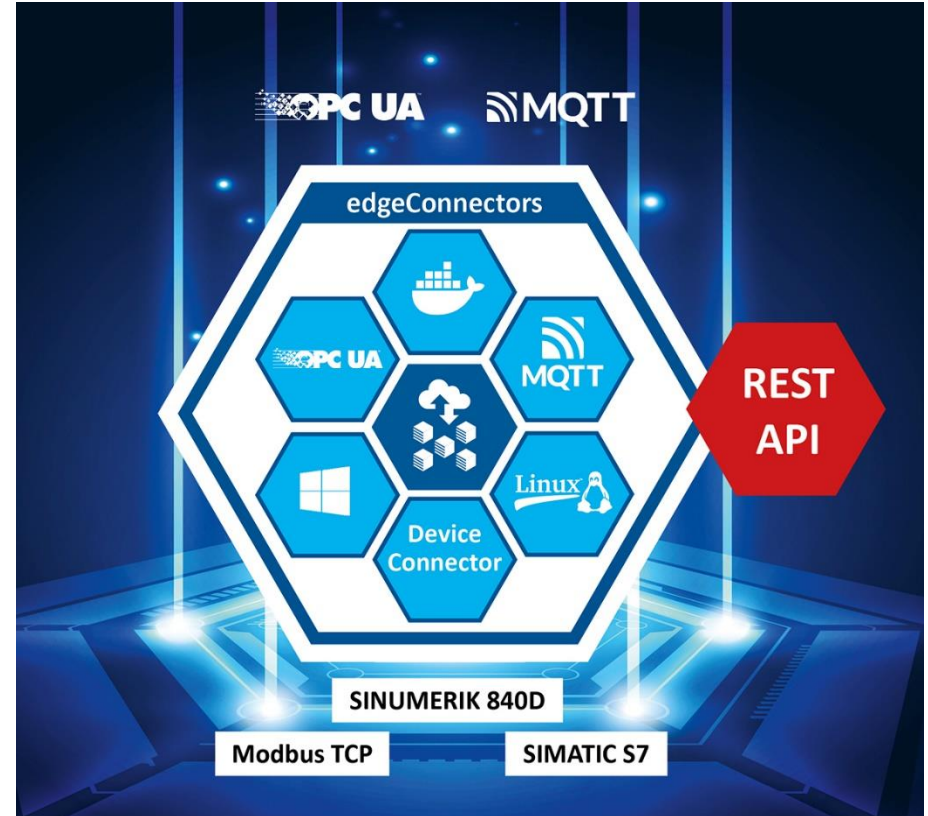
Embedded OPC UA server gateways for Siemens and Modbus PLCs

- Use of high security standards to protect the transmitted data
- **uaGate 840D** – OPC UA and MQTT connectivity for SINUMERIK 840D data
- **uaGate SI** – OPC UA and MQTT communication upgrade of Siemens retrofit plants
- **uaGate MB** – OPC UA and MQTT communication upgrade of Modbus TCP plants



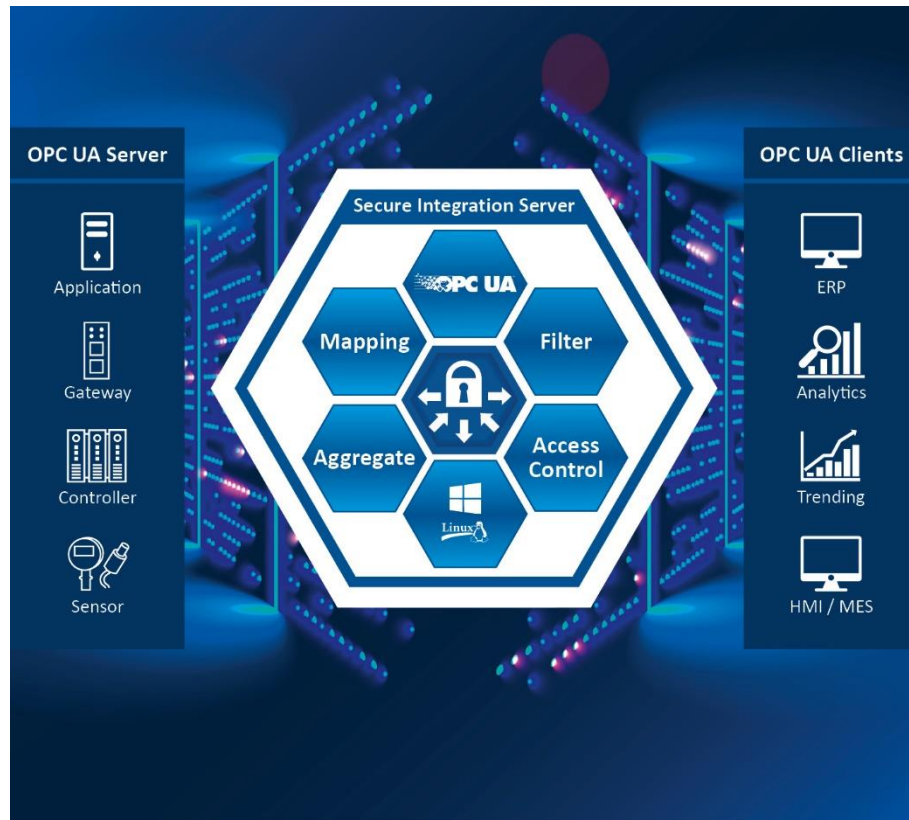
Connectivity for Industrial Edge

- Deployment via Docker management systems, e.g. Azure IoT Edge or AWS IoT Greengrass
- Local configuration via Web interface or remote configuration via REST API
- **edgeConnector 840D** – Data access from SINUMERIK 840D Solution Line and Power Line tooling machines
- **edgeConnector Siemens** – Access to data from SIMATIC S7-300/400/1200/1500 controllers via OPC UA & MQTT
- **edgeConnector Modbus** – Access to data from Modbus TCP controllers via OPC UA and MQTT



Secure and flexible OPC UA-based OT/IT integration with central data management

- Maximum security through vertical IT/OT integration on standard basis
- Data aggregation and interface abstraction for efficient and flexible IoT solutions
- Fully integrated with Edge architectures as well as with cloud applications



Modules for data exchange in Rockwell Automation controllers

- Upload production metrics from CompactLogix and ControlLogix to databases, such as Microsoft SQL
- Download recipes from databases to CompactLogix and ControlLogix
- Connect CompactLogix and ControlLogix to cloud applications like AWS and Azure with MQTT protocol
- Direct integration of OPC UA server into the ControlLogix chassis



- 
- Gateways, communication software and mobile interfaces to access field device data from applications for device parameter setting, asset management, asset monitoring, process optimization and IIoT.
 - Gateways and switches to connect field devices to Ethernet-based control systems.

Industry 4.0 connectivity for new and existing networks with access to field devices

- **smartLink HW-DP** – IIoT gateway for connecting existing PROFIBUS networks
- **smartLink HW-PN** – IIoT gateway for connecting existing PROFINET networks
- **smartLink SW-PN** – Software for connecting existing PROFINET networks
- **smartLink SW-HT** – Hart multiplexer software to access configuration & diagnostics data



Bluetooth and USB solution for commissioning, parameter setting and maintenance of field devices

- One device for the three most important communication protocols in process automation: HART, Foundation Fieldbus, PROFIBUS PA
- Compatible with FDT frame applications and major engineering tools
- **mobiLink** – Bluetooth & USB interface, approved for use in hazardous areas
- **mobiLink Power** – USB interface with integrated power supply for field devices



Direct connection of the controllers to the devices

- **epGate PN** – EtherNet/IP to PROFINET gateway with controller functionality
- **epGate DP/PA/PB** – Ethernet/IP to PROFIBUS DP/PA master gateway
- **FG-200** – Modbus TCP / FF HSE to FOUNDATION Fieldbus H1 gateway
- **pnGate DP/PA/PB** – PROFINET to PROFIBUS DP/PA master gateway
- **mbGate DP/PA/PB** – MODBUS TCP server to PROFIBUS DP/PA master gateway



Applications to monitor controllers, field devices and industrial communication networks.

plantPerfect Monitor – Permanent plant and condition monitoring for industrial networks

- Comprehensive presentation and evaluation of asset and health data
 - Provision of data on asset management, network communication, network configuration and diagnostic messages
- Seamless system and process integration
 - On premise or in the cloud
- Fully flexible and scalable





Tools and mobile devices for signal and protocol analysis of industrial communication networks.

Mobile diagnosis of bus physics, communication and cabling in PROFIBUS networks

- Checking the installation and operating quality of PROFIBUS DP and PA networks
- Reliable detection of all fieldbus problems
- Graphical color display providing easy-to-understand presentation of test results
- Cable test function for efficient troubleshooting of cabling errors
- Handheld oscilloscope, passive subscriber localization, mission planning on the PC



PC based integration of production plants with classical communication technology

- PCI and PCI Express interface cards
 - For use as a master or slave in PROFIBUS networks
 - For industrial applications with CAN- and CANopen
- USB interface
 - Universal PROFIBUS master interface with USB High Speed
 - CAN single-channel USB interface card with or without housing
- PC/104 and PC/104plus interface cards for PROFIBUS or CAN networks



References

End Users & Machine Builders



OEMs



Summary

- “Optimize!” as group-wide value proposition of reliable and efficient exchange as basis for the optimization of value creation processes and technical installations
- BUs provide longtime industry experience in their specific area
- All BUs offer software, hardware and services for technological integration, utilizing global standards
- Products and solutions of **Automotive** enable to evaluate the operational capabilities of vehicle components to ensure their quality
- **IT Networks** serves market with high-end measurement instrumentation to ensure physical performance of IT cabling
- **Industrial** offer provides connectivity across technologies for realizing integrated automation systems
- BUs are strategic partners for global players



