



echocollect

Integration of process data with databases, higher-level software applications and IoT cloud solutions

Industrial

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Customer presentation
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- Industrial-strength gateway enabling the following functionalities in existing systems, among others:
 - Bidirectional machine database connection
 - OPC Classic and OPC UA interface
 - Data storage (logging)
 - Mobile process data visualization
 - Coupling of different PLC types
 - Storing data in IoT cloud solutions
- ... without modifying control software

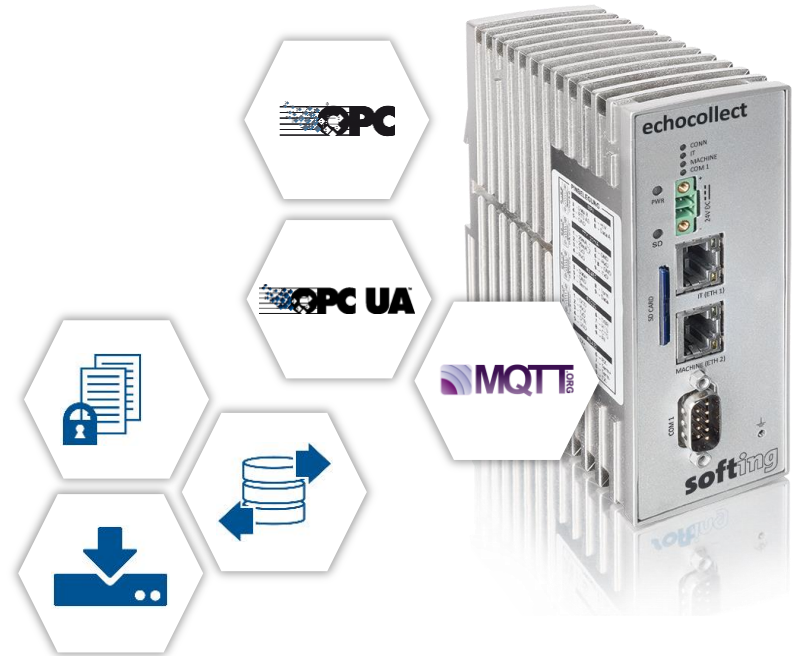


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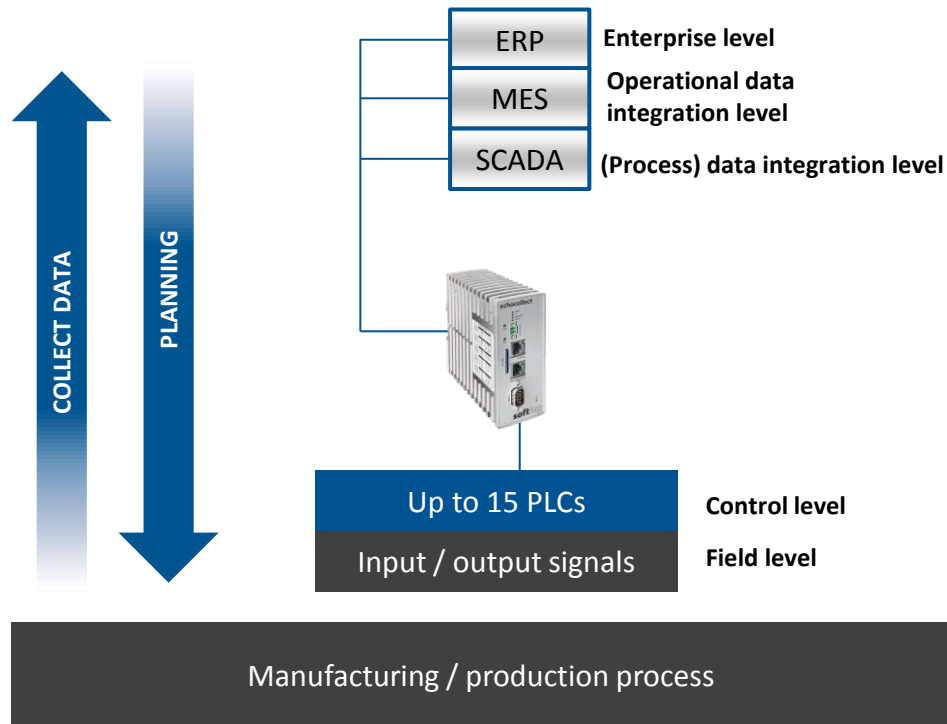
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Summary

Target Groups

- Companies with distributed production locations and globally connected plants, equipment and ERP systems
- Medium-sized system and MES integrators
- Machine and equipment manufacturers
- Manufacturing companies e.g. with assembly line and serial production
- Providers of IT cloud solutions



- Connecting the PLC and IT worlds to control and continuously optimize production, e.g. by connecting to an ERP system
- Capturing data on machine runtimes / downtime, OK/NOK parts, quantities, order data, messages on operational disturbances
- Interface for process, operational (PDA), machine (MDA) and personal data
- Data logging to ensure traceability
- Recipe management for exchanging data between PLCs and databases



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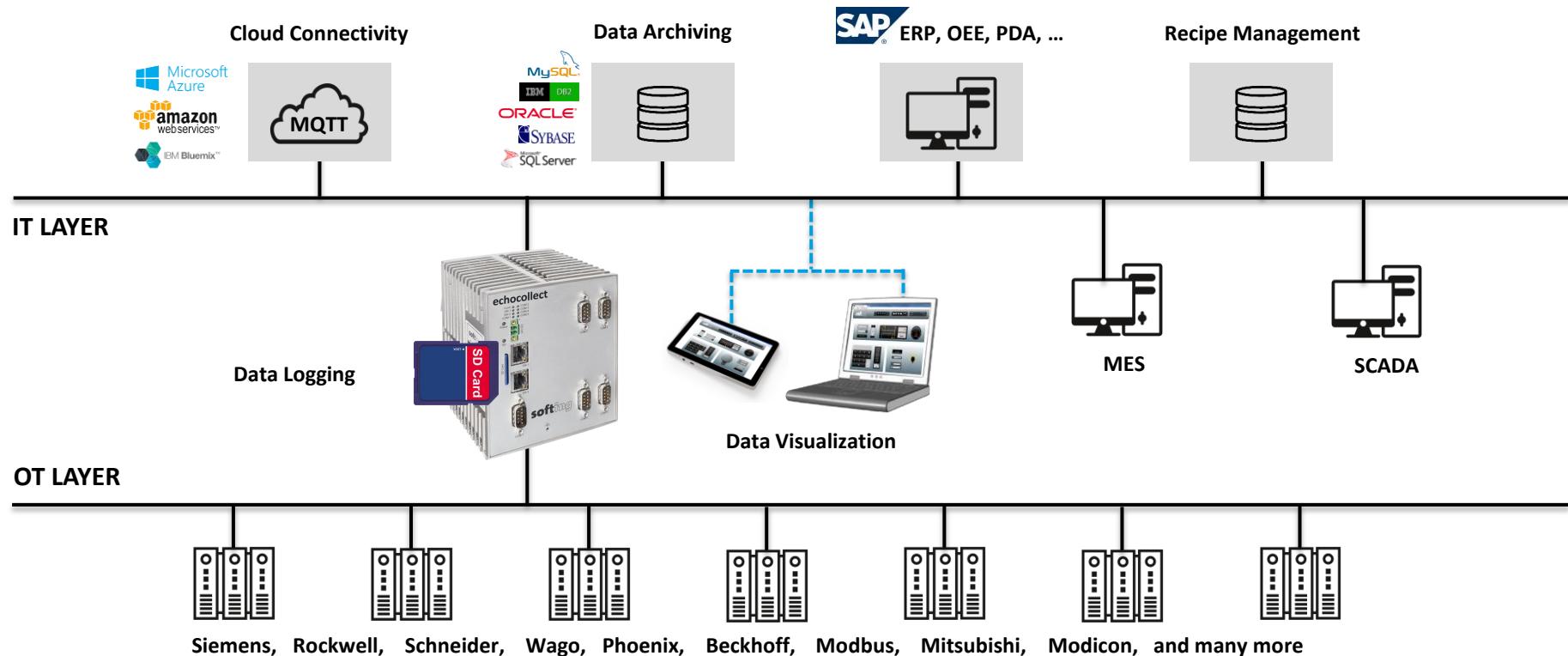
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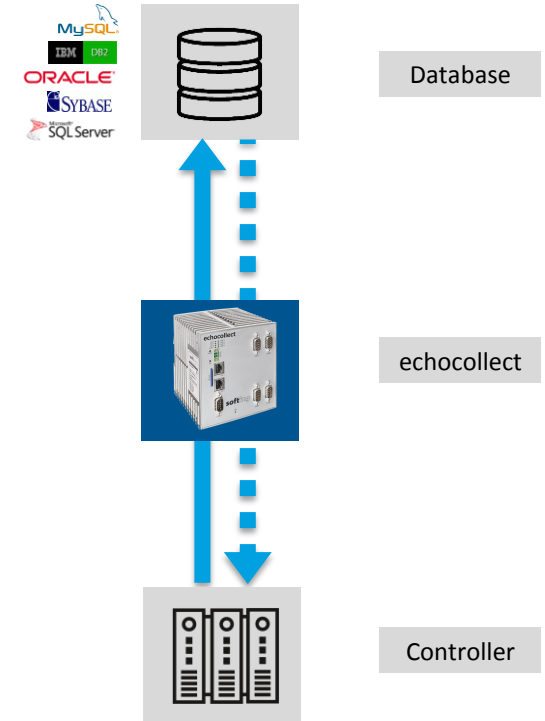
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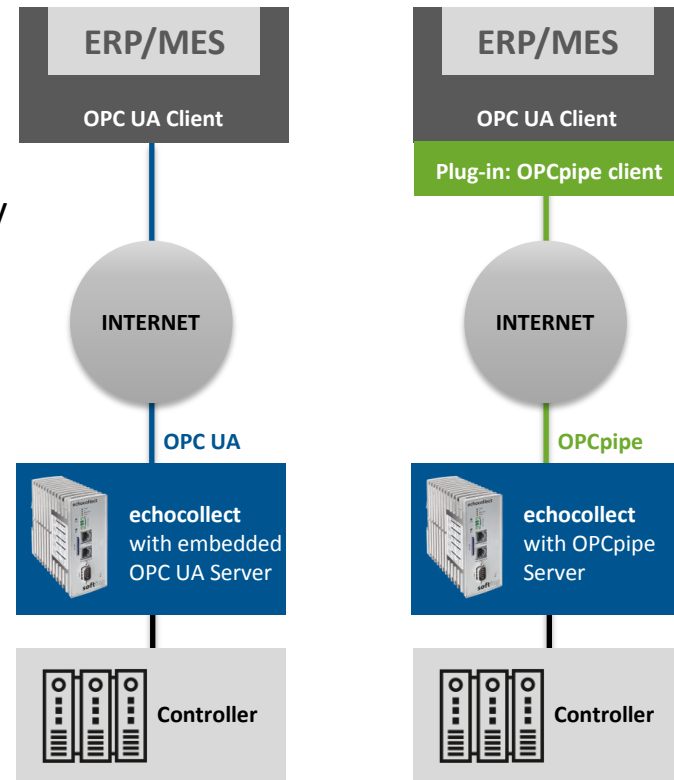
Machine Database Connection

- Acquiring production, process and quality data
- Data backup to prevent damage in case of network failure – Data buffering with time-stamping (store and forward) in the device
- Recipe management and process parameterization by way of bidirectional database connectivity
- Enabling complex scenarios, e.g. the use of stored procedures
- Supporting many SQL databases and SQL commands



OPC Classic and OPC UA Interface

- Fast and Easy integration of Process Values into IT systems (e.g. ERP, MES, SCADA) with OPC UA or OPC Classic
- Possibility to use all individual security mechanisms defined by the OPC UA standard, e.g. exchange of certificates
- Cost savings through continued use of existing OPC Classic components
- Configuration of OPC Namespace e.g. by importing symbolic names from Siemens TIA Portal, STEP 7 projects for Siemens controllers
- No DCOM configuration necessary thanks to OPCpipe

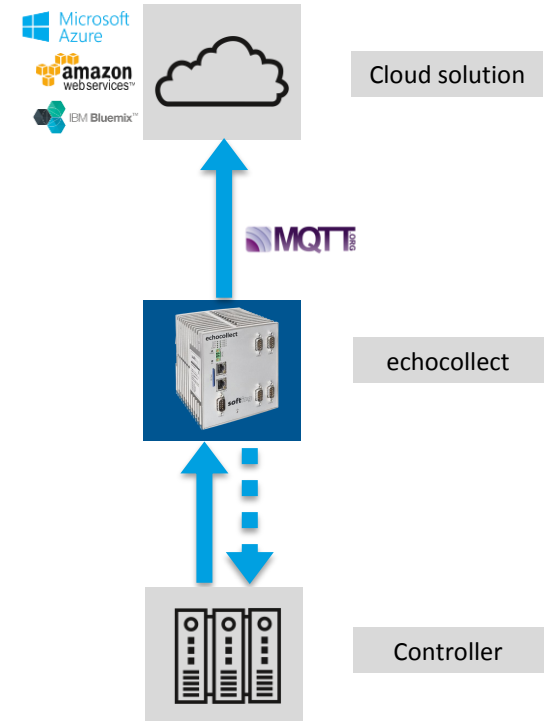


Data Storage (Logging)

- For uncompromising traceability and quality assurance
- Secure data logging in TXT, DAT or CSV files on the SD card
- Remote access to the logged data via integrated FTP server
- Data storage in the network, directly on the FTP server
- Straightforward analysis – Processing of generated CSV file e.g. in Microsoft Excel

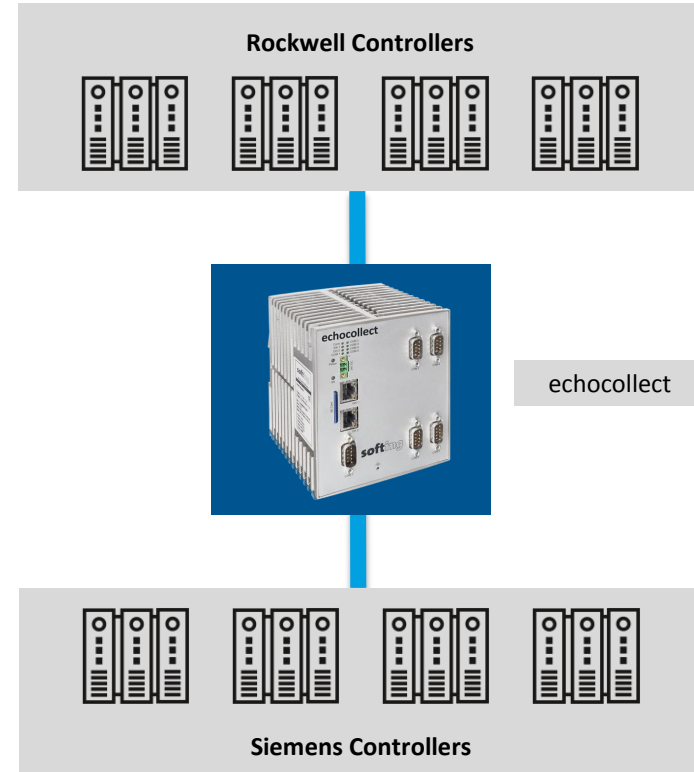


- Integration of process data with IoT cloud solutions (e.g. Microsoft Azure, IBM Bluemix, Amazon AWS) via MQTT communication protocol
- Simple publisher/subscriber system; (transmission of selected topics in string format to MQTT brokers)
- Authentication and data encryption for maximum security
- User-friendly topic generation through simple import of symbolic names from Siemens TIA Portal, STEP 7 projects for Siemens controllers
- Worldwide, remote access to machine data in the IoT cloud



Coupling of Different PLC Types/Variants

- Standardized interface for process data between machine/equipment components of different automation worlds (e.g. between Siemens and Rockwell controllers)
- Use possible without modifications to the control program



- **Protecting investments**
by gaining additional functionality without interfering with existing systems
- **Saving maintenance costs**
 - no PC, no software updates,
no IT administration necessary
- **Integrated data security** through physically separate networks and access only to predefined data (read/write permissions)
- **Fast and easy configuration**
through symbol import and CLX tag browsing
- **Simple integration as a standard interface**
thanks to large number of protocols



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2x Ethernet, 1x TTY)



echocollect r

(2x Ethernet, 1x TTY, 3x RS232, 1x MPI)

echocollect m

(2x Ethernet, 3x TTY, 2x MPI)

Support of more than 50 PLC types:

- Siemens SIMATIC S7 and S5
- Rockwell ControlLogix and CompactLogix, Rockwell PLC-5, Rockwell SLC-500, Rockwell controllers with DF1
- Modbus TCP/RTU controllers (Modicon, WAGO, Beckhoff, Phoenix, Schneider, etc.)
- Mitsubishi (Melsec-Q)
- Controllers with RK512, 3964(R), etc.

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Multi protocol gateway for the independent collection of process and manufacturing data and direct transmission to higher-level systems

Thank you very much for your attention!

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