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WHITE PAPER

IT/OT Interoperability: Bridging the gap for smarter industrial andweighing applications

digiBOX edge amplifier advanced IT/OT interoperability

As industries embrace digital transformation, the integration of Information Technology (IT) and Operational Technology (OT) has become a key enabler for optimising operations, enhancing productivity and ensuring seamless data flow.

The digiBOX Edge Amplifier is designed to bridge this gap, offering advanced IT/OT Interoperability to unlock new levels of efficiency and precision, for industrial and weighing applications

What is IT/OT Interoperability?

IT/OT Interoperability refers to the seamless integration of business-level systems (like ERP, MES or Cloud platforms) with operational systems (such as PLCs, SCADA and sensors).

This integration ensures real-time communication and data sharing across both domains, enabling informed decision-making, predictive analytics and enhanced process control.

> IT-OT integration to optimise operations, enhance productivity and ensure seamless data flow.

Advantages of IT/OT Interoperability for industrial applications

In complex industrial environments, IT/OT Interoperability delivers several tangible benefits:

- Real-time data processing: instant access to machine data and sensor readings enables quick adjustments and improved process control.
- Enhanced productivity: automated data exchange reduces manual intervention and ensures a continuous flow of information between systems.
- Predictive maintenance: integrated systems monitor equipment health, predict failures and reduce unexpected downtime.
- Scalable solutions: easy integration with Cloud platforms and modern protocols (e.g., MQTT) prepares businesses for future technologies, such as digital twins and machine learning

The role of IT/OT Interoperability in weighing applications

Precise and efficient weighing processes are essential across industries, from quality assurance, to automated filling and checkweighing.

IT/OT Interoperability plays a critical role in:

- Real-time weight monitoring: instant transmission of weight data to ERP and MES systems ensures process consistency and compliance.
- Error reduction: integrated algorithms and real-time feedback minimises inaccuracies during weighing operations.
- Improved traceability: seamless data sharing, between weighing systems and business software, enhances traceability and reporting for audits - plus quality control.
- Operational efficiency: connecting weighing equipment to IT systems streamlines workflows, reduces bottlenecks and optimises production throughput.

digiBOX: advanced IT/OT Interoperability in action

The digiBOX Edge Amplifier is purpose-built to ensure flawless IT/OT integration:

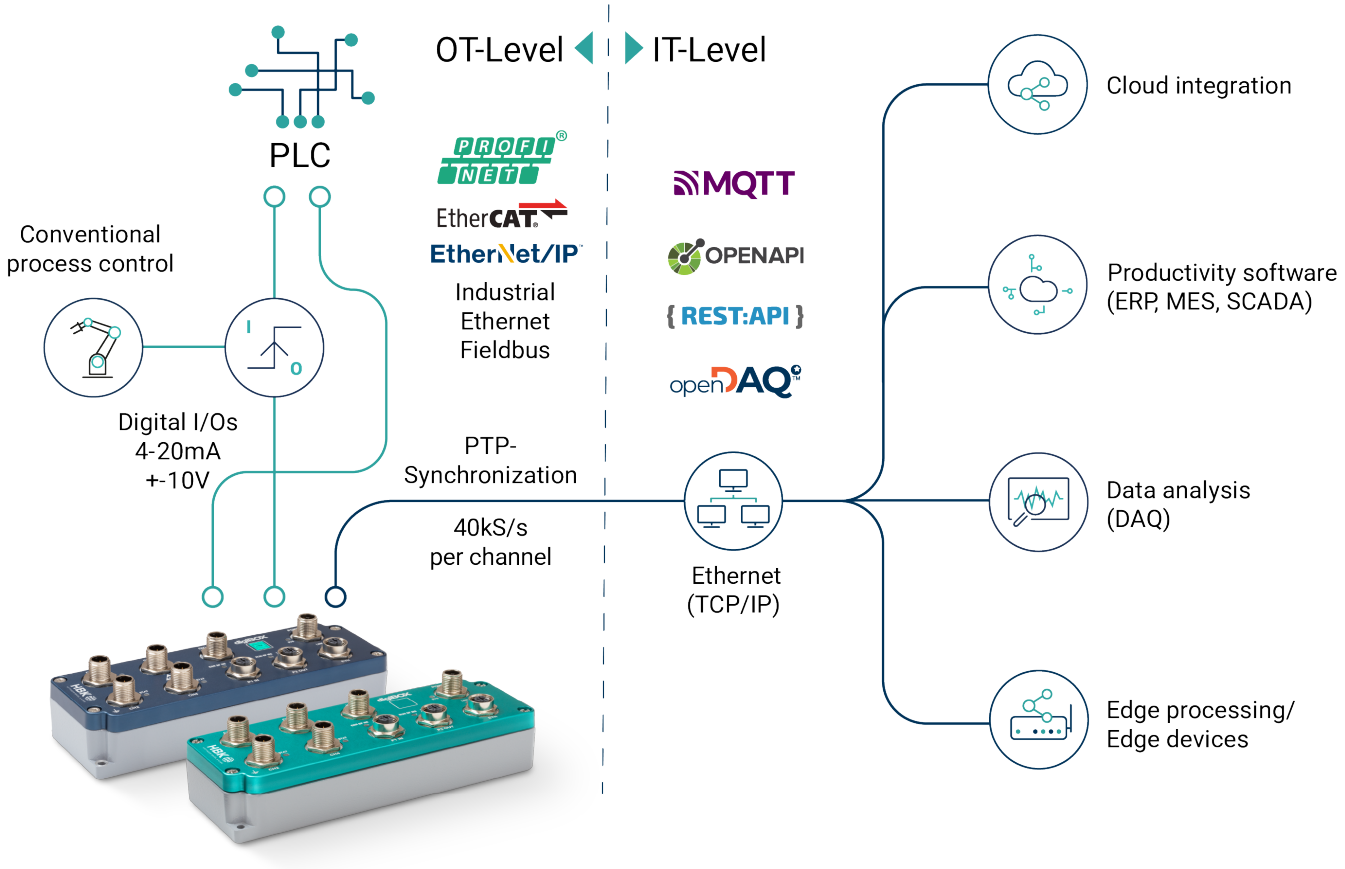
- Seamless data sharing:digiBOX allows for parallel streaming of data via openDAQ to IT-level applications. This enables DAQ analysis all while the OT (fieldbus process) is running.
- Modern protocols: support for MQTT and openDAQ enables smooth interaction with Cloud-based applications and advanced analytics tools.
- Industrial-grade reliability: the robust IP67 design ensures reliable performance, even in harsh industrial environments.
- Flexibility for all applications: whether for complex industrial processes or high-precision weighing, the digiBOX delivers data where it's needed, in real time.

digiBOX: a leap forward in technology

By enabling seamless IT/OT Interoperability the digiBOX Edge Amplifier empowers businesses to optimise their operations and enhance accuracy, ensuring they are prepared for the future of industrial and weighing technologies.

This integration not only streamlines processes, but also sets the stage for smarter, more connected production environments.

More information about digiBOX Edge amplifier



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