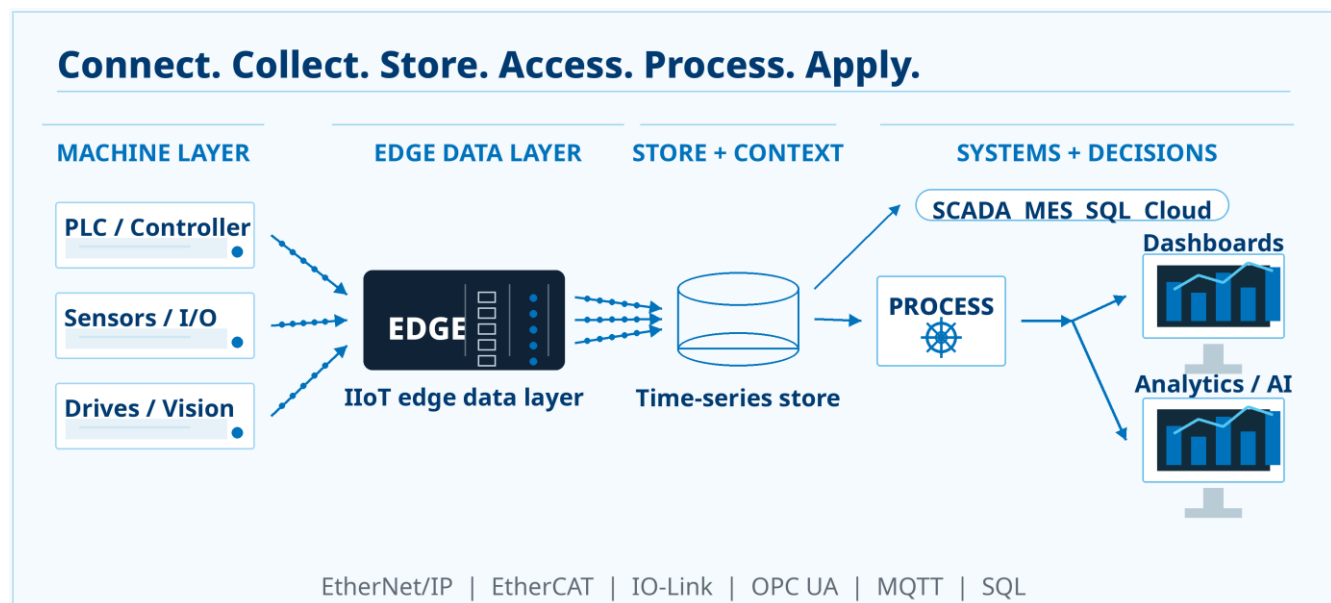


IIoT Edge Data & Control

Connect machines, collect and store real-time data, and make it accessible for analytics, AI and operational decisions.

What is IIoT Edge Data & Control?

It is a practical data architecture for connecting machines and making factory-floor information usable. The approach starts close to the equipment, where data is generated, and extends upward to SCADA, MES, databases, cloud platforms, dashboards and AI-ready analytics.



Connect, collect and store data at speed

Controllers, sensors, drives, I/O, vision and other automation assets generate high-value operational signals. IIoT Edge Data & Control captures those signals in real time, organizes them near the machine and stores time-series information so production teams can see what happened, when it happened and which equipment context matters.

- Connect through EtherNet/IP, EtherCAT and device-level data sources

Access, process and apply the data

Data creates value when it can be found, trusted and used. Standardized access methods help operations, engineering and IT process machine data through dashboards, diagnostics, databases, SCADA, MES, cloud systems and analytics models - without rebuilding the data foundation for every project.

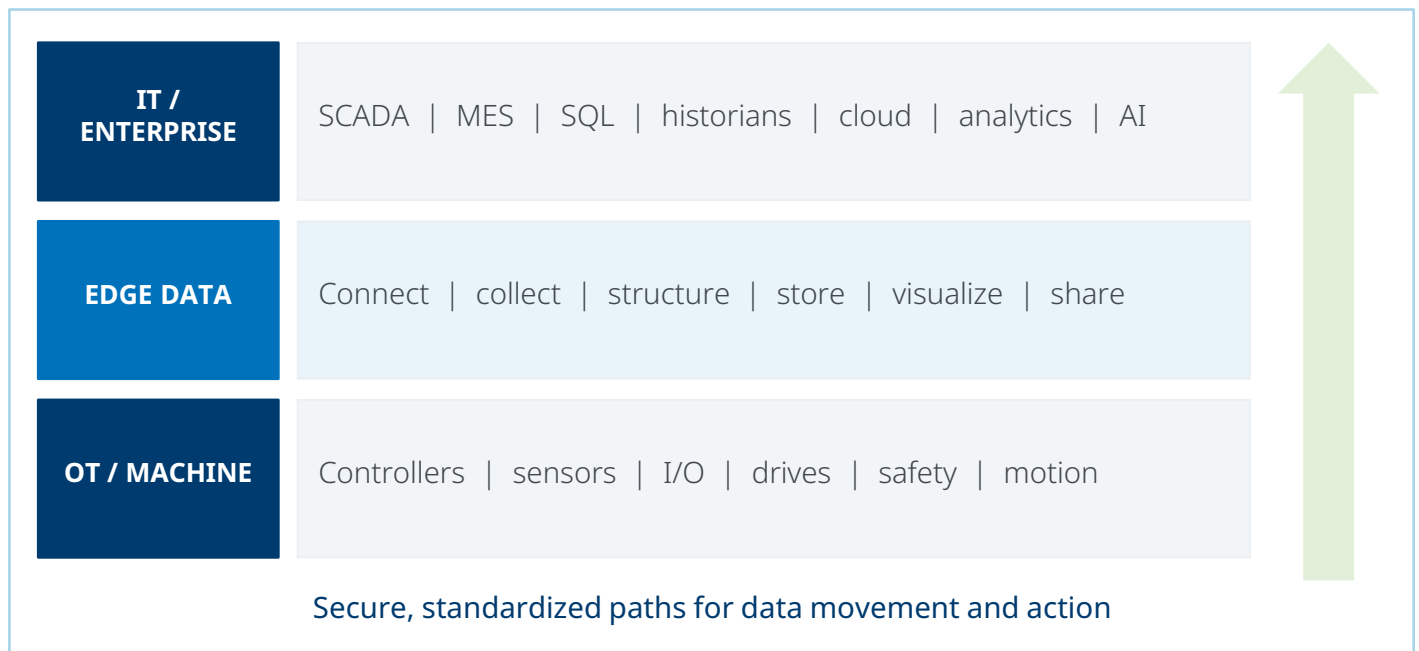
- Use OPC UA, MQTT, SQL and dashboards to move from raw signals to decisions

Bridge the IT/OT Gap

Move data from machine control to enterprise insight without compromising production stability.

The practical bridge

OMRON helps connect machine-level automation to data-driven operations by combining control platforms, industrial networks, sensing, safety, edge data enablement and application support into scalable architectures.



How can OMRON help

Edge data enablement

Our Data Flow Edge Device helps collect, structure, visualize and share production data from existing equipment so teams can start data utilization without a large controls redesign.

Machine & control foundation

Sysmac connects controllers, I/O, sensing, safety, motion and vision into one unified control platform, giving machine data usable context for control and visibility.

Data access and processing

OPC UA, MQTT, SQL, direct database connectivity and dashboards provide practical paths from machine data to SCADA, MES, cloud systems and analytics workflows.

Execution support

Our application expertise, proof-of-concept resources and partner ecosystem support help customers design, validate and scale IIoT architectures.

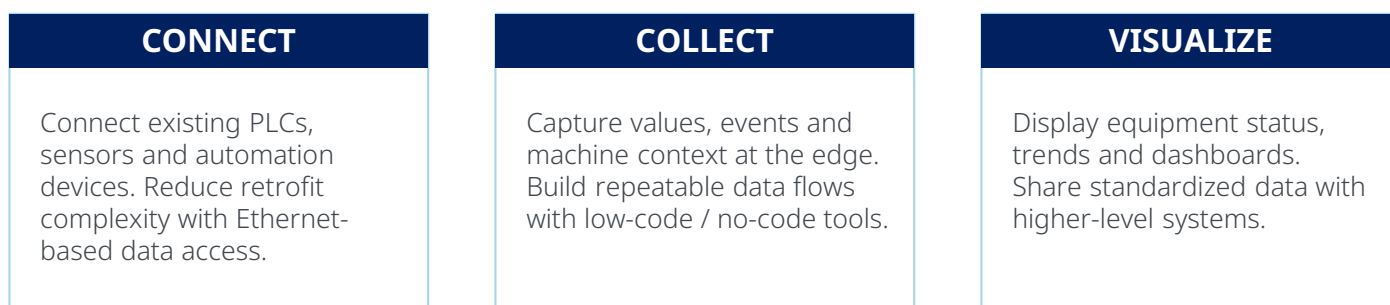
DX100 Data Flow Edge Device

Connect, collect and visualize production data from existing equipment - without changing current control logic.

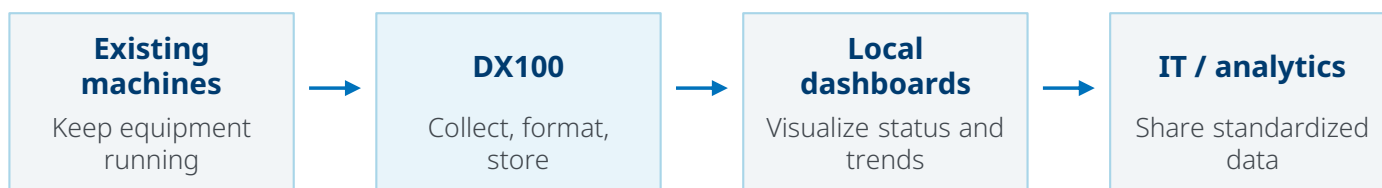


A practical edge layer for brownfield data utilization

DX100 helps teams start using production-site data quickly by connecting to installed equipment, collecting values and events, building data flows and displaying dashboards through browser-based tools.



Make data available without disrupting control

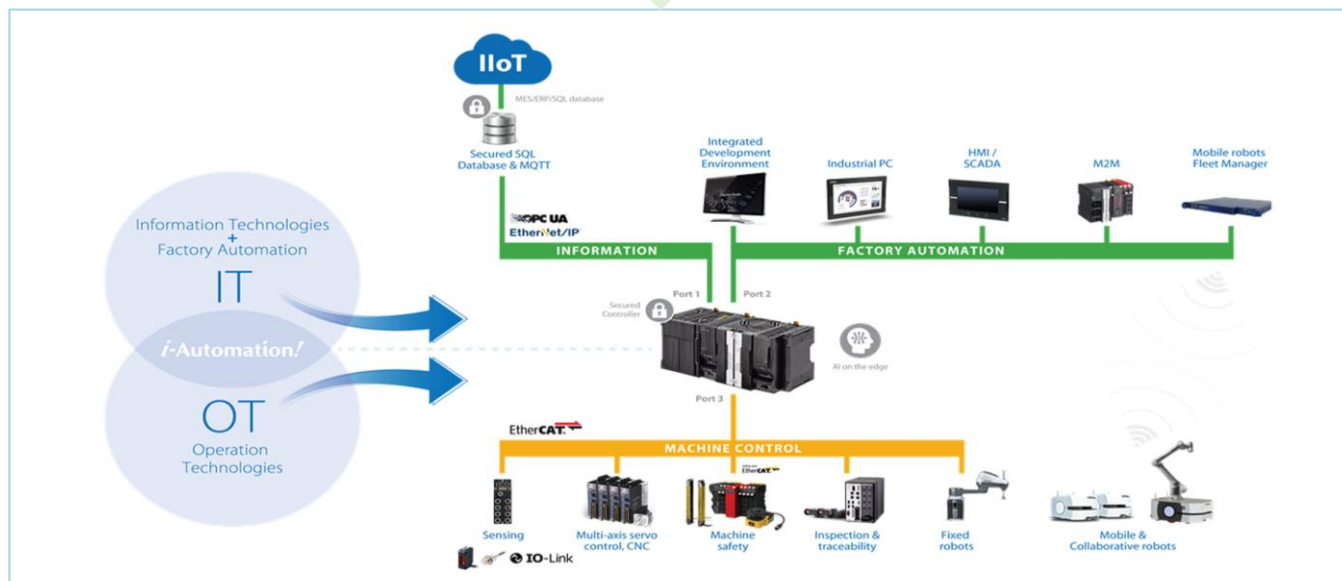
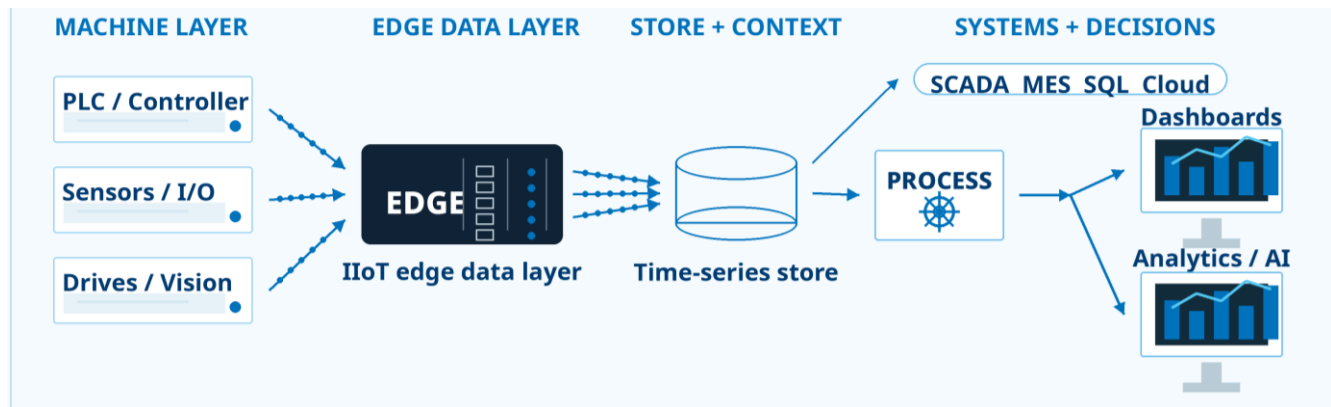


Why it matters for future manufacturing

Reliable edge data is the starting point for OEE dashboards, condition monitoring, traceability, remote diagnostics, predictive strategies and AI-driven improvement.

Sysmac Automation Platform

Use data inside a unified control architecture - from machine design and commissioning to operation, diagnostics and optimization.



How the data gets used

Design with context

Use a common automation environment to design logic, motion, safety, HMI, vision and information flows together instead of connecting isolated systems later.

Operate with visibility

Link machine behavior, status, alarms, cycle data and quality information so teams can diagnose issues faster and understand performance in context.

Improve with consistency

Create repeatable architectures that make structured machine data available for OEE, traceability, analytics, digital twins and future AI models.

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