

Achieve warehouse 4.0 in material handling

Vertical Brief



Belden solutions connect all parts of your warehouse— including the machines, people, processes, robots and more— to securely collect, synthesize and analyze your critical performance data and turn it into actionable insights.

The building blocks for a solution

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Network Resilience

Build a modern network foundation that delivers on current speed and quality expectations - and can scale for future growth ambitions.

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Edge Computing

Empower people to access, analyze, and act on information near the source to solve issues faster and to reduce the amount of data transferred to the cloud. **>>**

Data Interoperability

Seamlessly convert and bring together data from various sources, formats, protocols and sites to power applications and analytics, so you can make better business decisions.

Explore how Belden can improve customer outcomes

Predictive maintenance



- **SOLUTION:**
- Operational disruptions
- · Lack of real-time insights
- · Normalize and contextualize data from various sources, formats, protocols and sites
- · Access, analyze and act on information near the data source

Tracking and tracing of packages





- · Lack of traceability Islands of automation
- · Collect data from critical assets like conveyors, sorters, inline scanners, printing and labeling stations
- · Connect critical machines and assets to the network to eliminate blind spots and ensure committed bandwidth

Belden addresses material handling challenges

- Recovers lost productive equipment time due to cybersecurity attacks, network traffic surges and other interruptions.
- Faster data transfer, minimizes data processing costs and enables real-time analytics.
- Eliminates data silos due to legacy equipment and assets locked in proprietary protocols

The pathway to digitization

For maximum efficiency and value, Belden has mapped out four major steps that are crucial to your warehouse's digital transformation.

Adding assets

STEP 1

Digitize Assets: Add sensors to your warehouse assets to collect critical data such as vibration, encoders, temperature, level, etc.

Data pipeline



Establish a secure and reliable IT/OT network to connect islands of automation and ingest real-time production data from all areas in the warehouse.

Data operations



Implement Data Operations: Translate previously incompatible machine data into one common language to enable warehouse wide visibility.

Generate insights

STEP 4

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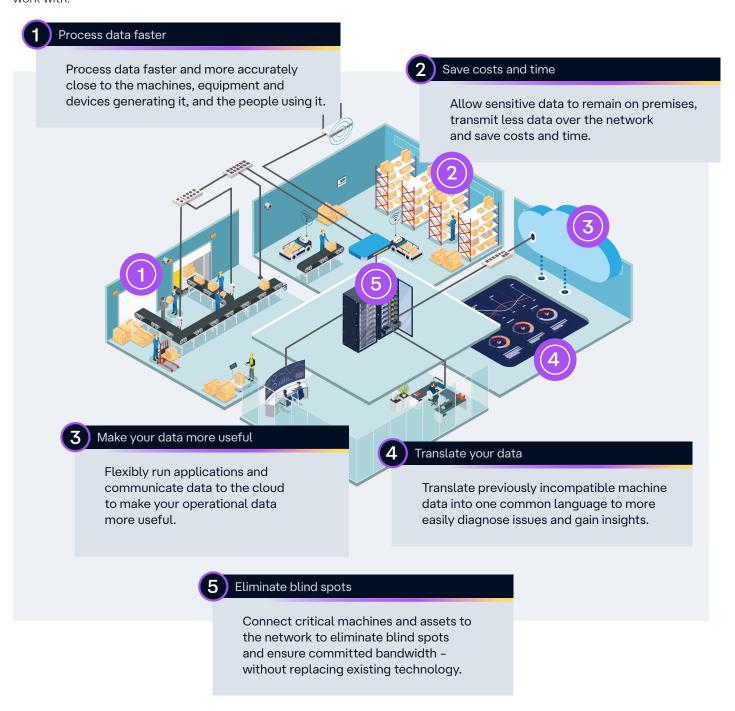
Generate Insights: run applications at the edge or in the cloud to visualize and showcase data to improve business operations.



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How Belden can help:

Today, the devices on your network are generating large amounts of data. Belden's capabilities provide a robust and scalable network solution that ensures your data is transmitted securely and seamlessly, regardless of the protocols or vendors you work with.



Get in touch with Belden's experts to make Warehouse 4.0 a reality at your facility.

Talk with our experts →



Global Customer Innovation Centers:

Belden's Customer Innovation Centers (CICs) serve your needs throughout the solution development lifecycle. These hubs — strategically located to serve regions throughout the world — offer access to best in-class capabilities, including the opportunity to run proof of concepts (PoCs) in our validation lab.



Experts at your side:

Designing the right solution for your business needs is not an easy task, so Belden provides direct access to our experts:

>>> Solution Architect

- Deep technical knowledge of network architectures
- Develop, design, and validate best solutions tailored to the complexity of each customer's unique business challenge

>>> Digital Automation Consultant

- Industry expertise with deep networking knowhow
- Lead process, workflows, and data assessments to identify digital transformation opportunities and calculate potential value of network solutions for the customer

>>> Solution Consultant

- Deep technical knowledge of applications and industries
- Guide the customer in their digital transformation journey, conducting industrial network audits and positioning the ideal solutions

>>> Service Engineer

- Deep technical knowledge of products and technologies
- Conduct trainings, test and commission networks
- Lead network assessments and deliver high quality presales and postsales technical support



Connect to what's possible.

Vertical Brief



About Belden

Belden Inc. delivers complete connection solutions that unlock untold possibilities for our customers, their customers and the world. We advance ideas and technologies that enable a safer, smarter and more prosperous future. Throughout our 120+ year history we have evolved as a company, but our purpose remains making connections. By connecting people, information and ideas, we make it possible. We are headquartered in St. Louis and have manufacturing capabilities in North America, Europe, Asia and Africa.

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