Digital transformation brings the power of automation and data analytics to mass transit rail systems.

**Mass transit systems** present challenges. Their complex infrastructure, high user concentrations, and broad geographic scope demand robust solutions. Riders expect comfort, on-time performance, and safety – at a minimum. Modern riders want seamless connectivity and data security, too.

**Belden’s Connected Rail Solution** provides everything you need to meet these demands.
Designing the Connected Rail System for Mass Transit

Belden helps you design, install, and validate the bandwidth for large amounts of data, the redundancy for reliable performance, and the cybersecurity to protect against service interruptions and data theft.

Each of rail transit’s top five operational imperatives are considered while creating the solutions to address your challenges and enhance your operational efficiency.

Meeting these imperatives involves integrating various independent but interconnected systems – each with a unique set of requirements – into a complete, end-to-end solution that will provide the best value.

Our experts guide you step by step to create the robust, interconnected data network you need to unlock the full potential of your modern rail system.
Pathway to a Best-in-Class Connected Rail System

With Belden’s help, your complete solution will enhance components throughout the Connected Rail System – rolling stock, rail infrastructure, stations and operation control centers – improving outcomes for all stakeholders.

Each rail application has unique requirements, so Belden creates your connected data network to meet your needs. Our experts know which combinations of technologies work best and they follow industry-leading best practices to create a solution adapted to suit the intricacies of your system.

Most mass transit systems include the following elements:

**Element 1:**
The Connected Train Network
Establish connections onboard rolling-stock assets
- Train Control Systems
- Train Operations Systems
- Onboard Experience Systems

**Element 2:**
The Connected Trackside Network
Provide connectivity for track-side equipment
- Train-to-Ground Connections
- Trackside Control Systems
- Trackside Operations Systems

**Element 3:**
The Connected Station Network
Enable communications for in-station systems
- Station Control Systems
- Station Operations Systems
- In-station Experience Systems

**Element 4:**
The Connected Backbone and OCC Network
Create a backbone for the OT network
- Area of operation (AO) Interconnections
- Operations Control Center
- Remote Connectivity
Belden – Experts for All Your Networking Needs

As an end-to-end network solution provider, Belden guides you to the products, services and tools you need to move ahead on your digitization journey. With our experts at your side throughout your journey, you will see your unique automation plans come to life through a combination of Belden’s extensive network portfolio and appropriate third-party tools and services.

Discover the Entire Portfolio

Visit belden.com/mass-transit and contact our experts to learn more on our Mass Transit solutions’ products and services offer.
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.

Our 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.

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<thead>
<tr>
<th>Expert Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>Solution Architect</td>
<td>Deep technical knowledge of network architectures. Develop, design, and validate best solutions tailored to the complexity of each customer unique business challenge.</td>
</tr>
<tr>
<td>Digital Automation Consultant</td>
<td>Industry expertise with deep networking know-how. Lead process, workflows, and data assessments to identify digital transformation opportunities and calculate potential value of network solutions for the customer.</td>
</tr>
<tr>
<td>Solution Consultant</td>
<td>Deep technical knowledge of applications and industries. Guide the customer in their digital transformation journey conducting industrial network audits and positioning the ideal solutions.</td>
</tr>
<tr>
<td>Solution Engineer</td>
<td>Deep technical knowledge of products and technologies. Conduct trainings, testing and commissioning networks. Lead network assessments and deliver high quality pre-sales and post-sales technical support.</td>
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Learn More

Visit belden.com/mass-transit for additional information and to contact our Mass Transit solution experts.
About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today’s applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.