BELDEN

NetModule

Industrial Solutions

PRODUS® S.A.

Autoryzowany dystrybutor w Polsce

NET MODULE

belden.com

NetModule

Robust communication for over 20 years. We are set to partner with you and support you with our expertise — in terms of our products as well as our consulting and supporting services. We offer an extensive range of solutions for your use case. We support you in the different markets and add value by opening communication channels.

NetModule — Connection is our business

NetModule is a leading manufacturer of communication products for M2M and IoT. One focus is on our solutions for applications in the fields of shipping, local and long-distance public transit, and Industrial Internet. Future markets such as Smart City, public safety, and sustainable energy and resource management are further focus areas. The key technology here is 5G.

Our devices are certified and include the latest wireless technologies along with multiple interfaces for applications where robust communication is essential, such as information systems, driver communication, passenger WiFi, remote maintenance, condition monitoring, and real-time data exchange.

Founded in 1998, NetModule is a Swiss company headquartered in Bern with a branch in Winterthur and subsidiaries in Frankfurt and Hong Kong. Since spring 2022 part of the Belden Group, Belden brands. NetModule is ISO 9001:2015 certified.

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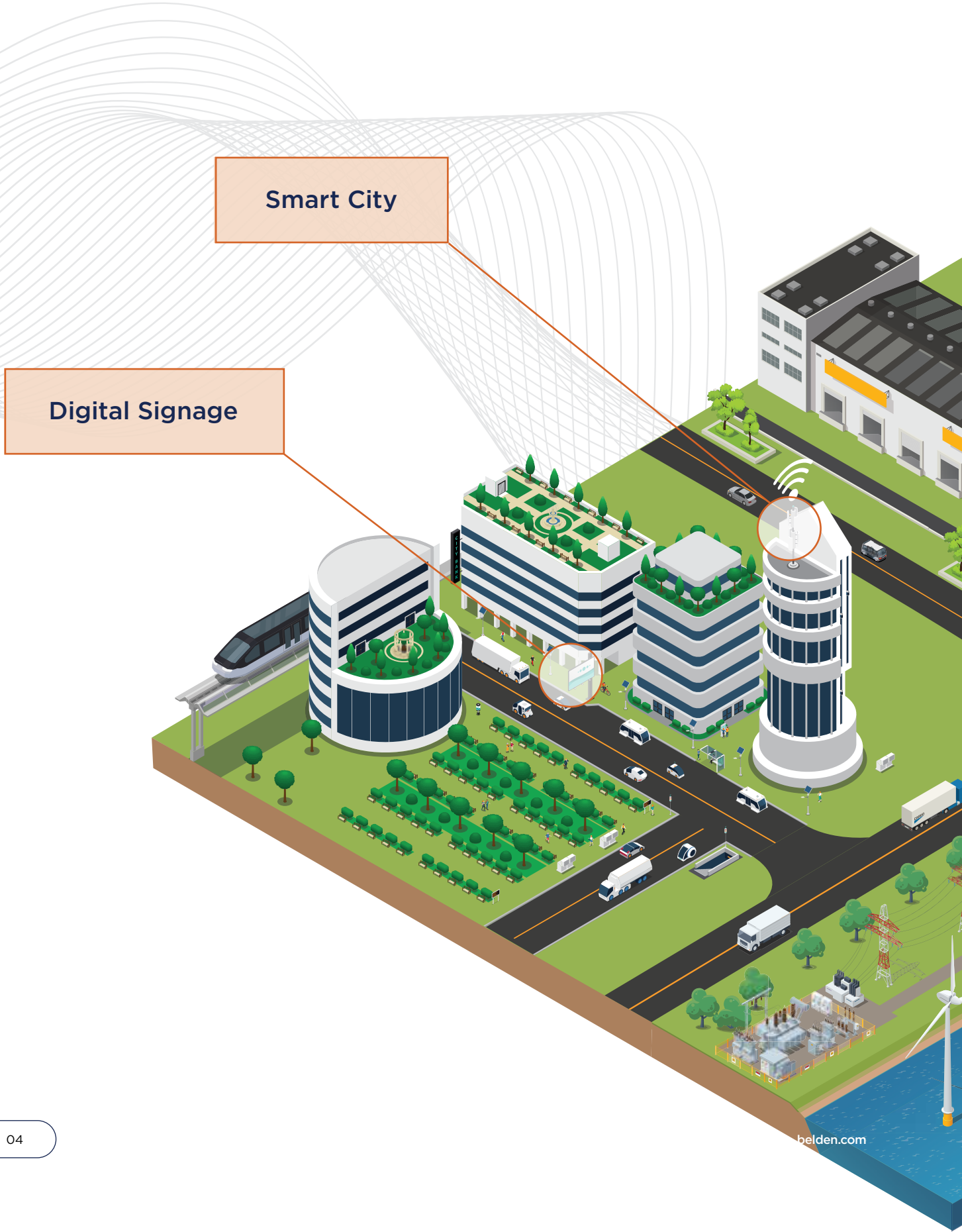
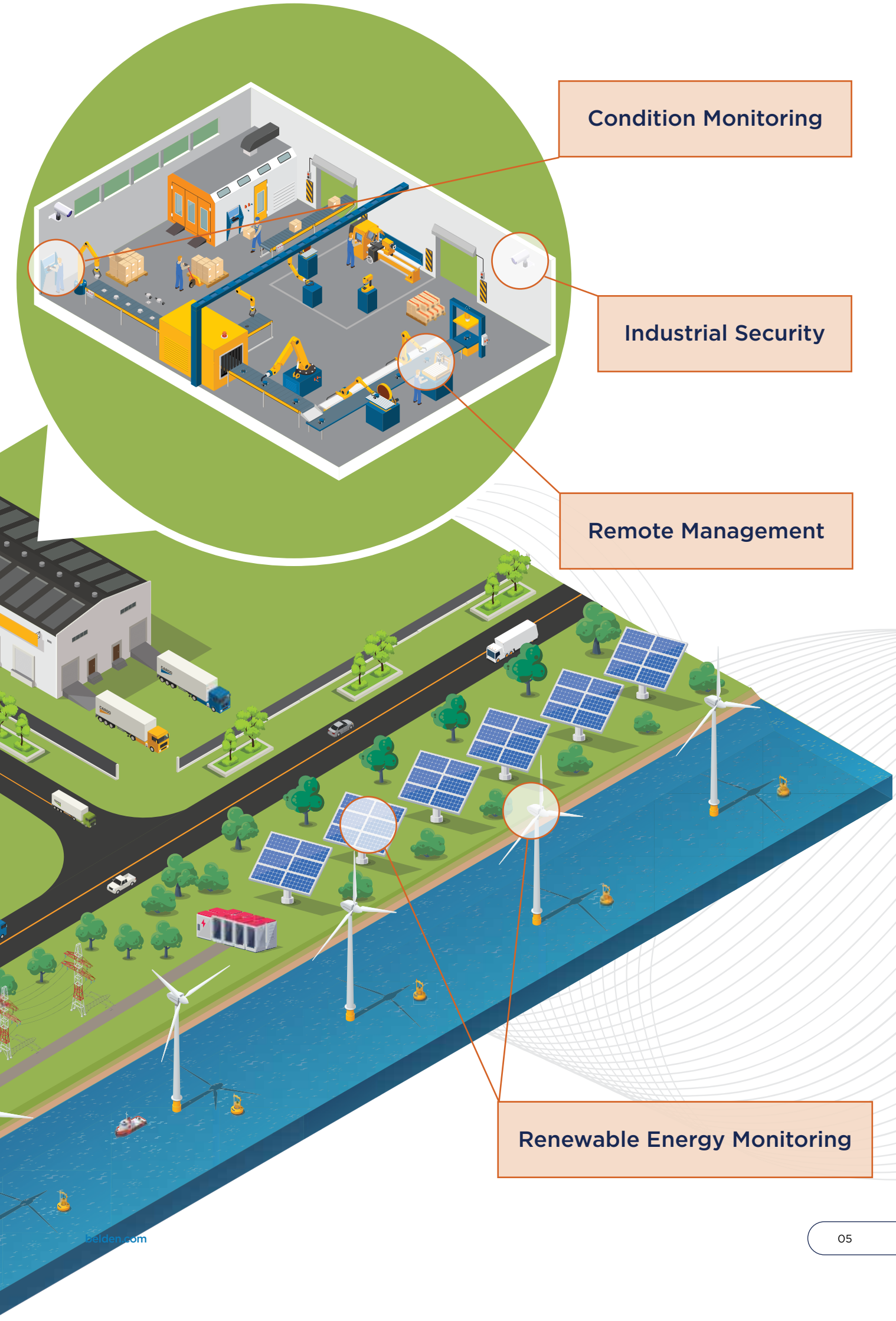



Condition Monitoring
Industrial Security
Remote Management
Renewable Energy Monitoring

YOUR CHALLENGES. OUR SOLUTIONS.

CONDITION MONITORING

How can condition monitoring enhance efficency?

Monitoring systems, recording machine status, and optimizing maintenance intervals – thereby minimizing service costs – requires secure and reliable access. And this access is what NetModule routers with their many different interfaces can deliver. No conversion to new technologies is required.

The primary objectives of condition monitoring include predicting failures, optimizing maintenance schedules, reducing costs through early issue detection, improving safety by indentifying and addressing risks promptly, and enhancing operational efficiency by maintaining equipment in optimal condition.

For a reliable network connection, NetModule routers support mobile networks (LTE/UMTS), WiFi, Ethernet, and fiber optics. Multiple WAN interfaces can be used for fallback connections to ensure uninterrupted network access.

To provide a secure connection to the central office, the router software is equipped with an industry-standard VPN protocol suite and firewall by default.

NB1601 Industrial Router

- Mobile Networks (LTE/UMTS), WiFi and Ethernet
- Interfaces like Digital I/O, RS-232, RS-485, CAN and Bluetooth
- TS35 rail mounting, wide operating temperature range (-40°C /-40 °F to +85°C/+185°F) and IP40 meatal housing

INDUSTRIAL SECURITY

How to easily secure your industrial network?

An increasingly networked environment makes industrial security an ever more important topic. Networking has many advantages, but it also carries its very own hazards: breaking and entering by potential attackers if adequate protection is lacking. Connect and secure your infrastructure with NetModule routers.

The fourth wave of the industrial revolution calls for networked systems that are ready for the future. On the one hand, remote control, monitoring, and maintenance of the industrial infrastructure must be ensured. On the other hand, companies in all industries are increasingly becoming targets of cyberattacks and industrial espionage and must be protected against unauthorized access. Our routers offer technical options for connecting the control units of various systems to a network.

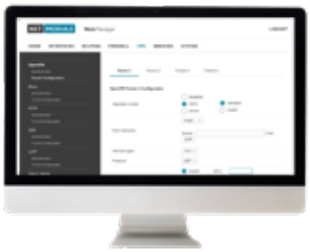
Our routers link operative installations to a network or networks. But they also shield these installations and the attached critical infrastructure segments consistently from the internet using an integrated industry-standard firewall. The data can be encrypted with the VPN protocol suite implemented as standard in the router software.

NB1810 Industrial Router

- Mobile Networks (5G/LTE/UMTS), WiFi and Ethernet and fiber optics
- Interfaces like Digital I/O, RS-232, RS-485, CAN and Bluetooth
- TS35 rail mounting, wide operating temperature range (-40°C /-40 °F to +85°C/+185°F) and IP40 meatal housing

REMOTE MANAGEMENT

Can many routers also be managed conveniently?



Remote management or remote maintenance refers the spatially separated access to IT systems for control, maintenance and repair purposes, with the aim of increasing efficiency. Thanks to remote management, companies can achieve cost savings and make better use of their resources – anywhere in the world, thanks to our routers.

For installations located in places that are difficult to reach or systems such as fire and hazard alarm systems that are subject to legal requirements regarding maintenance and fault information, remote management is often the only efficient solution. NetModule routers reliably link remote systems for control, maintenance or repair purposes.

NetModule routers are designed for continuous uninterrupted operation. All connections and the hardware itself are constantly checked using several software mechanisms.

Connectivity Suite

- Device management, over-the-air remote updates and configurations
- Remote maintenance at any time, at any location worldwide with just a few clicks
- Large-scale rollout made easy thanks to automated task processing
- On-premises or cloud installation

RENEWABLE ENERGY MONITORING

How can efficiency be boosted in Energy Monitoring?

Renewable sources of energy make major contributions to protecting the climate, securing supplies and avoiding conflicts over raw materials. Considering that many wind farms or hydroelectric or solar power plants are difficult to reach, a reliable data connection is essential. This can be provided by NetModule's routers.

The basic principle of renewable energies is that, on the one hand, processes occurring in nature are harnessed and that, on the other hand, electricity, heat. and fuel are produced from renewable raw materials.

NetModule' routers can be managed over the air. For example, software updates or even modem firmware updates can be carried out without physical access. System monitoring and recovery mechanisms are essential for the networking of wind farms or other difficult-to-access locations. Currently, the focus is on power-saving functions, which are particularly helpful when using solar-powered system batteries. This way the routers can be switched off by software and reactivated by timer.

NB1800 Industrial Router

- Mobile Networks (5G/LTE/ UMTS), WiFi and Ethernet and fiber optics
- Interfaces like Digital I/O, RS-232, RS-485, CAN and Bluetooth
- TS35 rail mounting, wide operating temperature range (-40°C /-40 °F to +85°C/+185°F) and IP40 meatal housing

SMART CITY

How to connect a whole city?

NB800 IoT Router

- Mobile Networks (LTE/UMTS), WiFi and Ethernet
- Interfaces like Digital I/O, RS-232, RS-485, CAN and Bluetooth
- TS35 rail mounting, wide operating temperature range (-40°C /-40 °F to +85°C/+185°F) and IP40 meatal housing

Cities are getting bigger and denser – and this creates increasing challenges. The Internet of Things (IoT) makes it possible to make cities greener, safer and more efficient. Linking devices, vehicles and infrastructure in networks can reduce energy and water consumption, helps lead service personnel more efficiently, can improve safety and the quality of life, optimizing the use of resources. NetModule routers provide you with the robust connectivity you need to accomplish this.

Intelligently managed traffic results in an optimized traffic flow and increased safety. The availability of inter- and multimodal transportation characterizes a forward-city. NetModule's mobile network routers are used for the reliable network integration of the various systems.

Outdoor lighting is one of the most important – and expensive – features of the infrastructure cities and municipalities. The Internet of Things can make lighting control and maintenance resource-efficient through smart lighting management. NetModule routers provide the necessary robust connectivity.

DIGITAL SIGNAGE

How to advertise appropriately?

Digital signage is the use of digital and possibly also interactive media content for electronic poster advertising or screen-based communication in stores. This enables targeted and dynamic advertising and deploys real-time information everywhere. NetModule's routers enable fast and reliable data transfer.

Our routers help you access your system, put your digital advertising content online in minutes regardless of location, and exchange data at any time. The routers come with a choice of LTE or WiFi, or both, and provide the necessary connectivity anywhere without the need to scramble for wired connections, which can be expensive or downright impractical to provide. Thanks to the integrated GNSS receiver, locally targeted advertising can also deliver without problems. Using Bluetooth Low Energy, the routers can also be configured as beacons to provide your customers with information directly on their smartphones.

Industry-standard security features include a VPN protocol suite and firewall functionality. Thanks to the compact housing design, the routers can be installed even if space is limited.

BELDEN – EXPERTS FOR ALL YOUR NETWORKING NEEDS

As an end-to-end network solution provider, Belden enables you to access the solutions, services and tools you need to move ahead on your digitization journey.

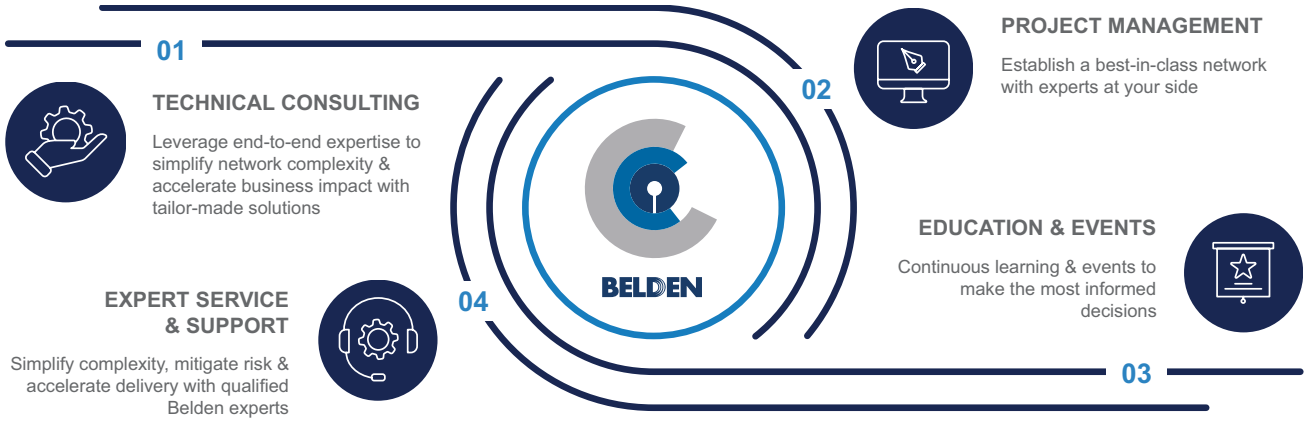
Global Customer Innovation Centers

The digitization journey is about unleashing the power of data to build a world of possibilities where customers can shape their business's future by proactively responding to ever-changing market trends.

The Customer Innovation Center™ (CIC) is a space where innovation, creativity and collaboration are nurtured to find continually better solutions to digital challenges. Our experts and consultants offer their deep knowledge of hardware, software and operations elements to guide customers step by step in their digitization journeys.

To ensure that our customers have confidence in their networks, we assess their processes and network to identify challenges and opportunities. We design and tailor the best solution from the ground up to meet specific KPIs while delivering a network that outperforms industry benchmarks. Our state-of-the-art technology and expertise enable us to validate the solution before implementing it and provide post-sales services and support, effectively eliminating risk for the customers.

To guarantee our support on a global scale, we operate five Customer Innovation Centers across the world—Stuttgart, Germany; Santa Clara and Chicago, United States; Shanghai, China; and Bangalore, India. The CICs offer the opportunity to touch and feel our solutions and explore endless possibilities. We bring the offline and online worlds together in collaborative labs and training spaces designed to foster the innovation our customers require.



About Belden

Belden Inc. delivers the infrastructure that makes the digital journey simpler, smarter and secure. We're moving beyond connectivity, from what we make to what we make possible through a performance-driven portfolio, forward-thinking expertise and purpose-built solutions. With a legacy of quality and reliability spanning 120-plus years, we have a strong foundation to continue building the future. We are headquartered in St. Louis and have manufacturing capabilities in North America, Europe, Asia, and Africa.

For more information, visit us at: **www.belden.com**

follow us on **Facebook, LinkedIn** and **Twitter.**