



Cellular Wireless Solutions

For maximum mobility, remote connectivity and network availability in today's industrial environments.



A connected enterprise requires secure and reliable cellular wireless connections in harsh environments. Belden's family of cellular wireless solutions include a broad portfolio of cellular routers, support for secure on-demand and always-on connectivity solutions and antennas that work seamlessly together.

Be certain.
Belden.

Industrial Cellular Wireless

Magnum DX940e Router

- Obtain better connectivity with high speed 4G/LTE cellular interface for secure remote access
- Use high-end, robust cybersecurity mechanisms with advanced safety features, IP routing and guaranteed network protection with firewall layers
- Adhere to industry standards with NERC CIP compliant security elements



OWL LTE M12 Cellular Routers

- Rugged LTE device for trains (EN50155) with M12 connectors
- Fully encrypted data streams with IPSec and OpenVPN
- For modern operators that want to deliver edge computing functionality: C, C++, Lua, Python
- GPS dead reckoning functionality allows train position estimation based on acceleration inside tunnels



ICX35 Cellular Modem

- PTCRB and Verizon Certified
- 3G/4G LTE (with auto fallback)
- Secure, encrypted connectivity via OpenVPN, IPSec or ProSoft Connect™
- Hazardous area certified (C1D2, Atex Zone 2)
- Alarm notification (SMS)



ProSoft Connect

- Secure, redundant and highly reliable cloud-native platform for device and communication management
- On-demand, secure remote access SRA connection
- Always on, Persistent Data Network (PDN)
- Single sign-on (SSO), virtual Lockout-Tagout (vLOTO), two-factor authentication
- IP whitelisting
- 25Bit AES encryption



EAGLE40 Security Appliance

- High performance, next generation firewall and threat prevention appliance with cellular capabilities (coming soon)
- Ruggedized, compact design meets Class 1 Div 2 Haz. Loc and Substation compliance, with extended temperature range of -40°C to +70°C
- Runs on the Hirschmann HiSecOS software to ensure maximum network availability and data security



OWL 4G Cellular Routers

- Global variants, US variant with Verizon, AT&T certification
- LTE Cat. 4 or M.1 with optional 11ac WLAN and GPS
- Tunnel technology IPSec OpenVPN, L2TP, GRE, PPTP
- Underlying open edge computing platform allows to build and deploy custom applications: C, C++, Lua, Python
- LPWAN variant with LTE Cat M.1 delivers longer range and a better connection inside buildings



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Vertical Solutions



Onboard Systems



Smart Cities & Traffic Systems



Logistics & Factory Automation



Smart Grids & Remote Asset Management



Machine Builder



Water



Oil & Gas

- Advanced security features
- Built in redundancy protocols
- Market specific certifications

- Complete set of accessories
- Remote diagnostics
- IT-secure / OT-friendly remote connectivity

Value-Added Benefits

The Belden Solution brings breadth you won't find with any other vendor. Consider the reliability of a total infrastructure built to work seamlessly in the harshest operating conditions. Based on true industry knowledge built over time in field-proven applications, Belden networks work.

Plus, you'll find Belden professionals actively engaged in the governance organizations and work groups exploring new technologies and setting standards for optimum performance.

Wireless Product Selection

On-Board Transportation

Applications	Reference Product
<ul style="list-style-type: none"> • Suitable for on-board trains and metros • Certified for EN50155 reliability and vibration-proof M12 connectors • GPS and Dead Reckoning for orientation and position data inside tunnels 	OWL LTE M12 

Heightened Security for Energy and PT&D Applications

Applications	Reference Product	
	EAGLE40	DX940e
<ul style="list-style-type: none"> • Security for harsh industrial environments requiring Class 1 Div. 2 or substation environment needing IEEE 1613 and IEC 61850-3 certifications 		
<ul style="list-style-type: none"> • Securely implement zones and conduits for defense in depth 	●	●
<ul style="list-style-type: none"> • Data transmission encryption and intrusion detection and prevention using state-of-the-art deep packet inspection 	●	L3 stateful firewall
<ul style="list-style-type: none"> • Support for legacy infrastructure and IP connectivity and 4G/LTE WAN connectivity. Cellular can be used as the primary or backup connection. 	Future	●

Cellular Remote Connectivity for Machine Builders, Discrete Manufacturing, Utilities and Automotive

Applications	Reference Product	
	ICX35	OWL 4G
<ul style="list-style-type: none"> • Easy to deploy out-of-the box with minimal configuration required 		
<ul style="list-style-type: none"> • Custom logic functions written in languages like C, C++, Lua, Python, NodeJS or Node Red for edge compute function on device 	●	Configuration required
<ul style="list-style-type: none"> • Reliable communications with geographically dispersed sites 	●	●
<ul style="list-style-type: none"> • Suitable for oil and gas plants, water and waste water stations and discrete manufacturing facilities 	●	●
<ul style="list-style-type: none"> • ProSoft CONNECT with IT-secure features such as single sign-on, one-time use passwords, 256-Bit AES encryption, virtual Lockout-Tagout (vLOTO™) 	●	
<ul style="list-style-type: none"> • Cloud support 	ProSoft CONNECT™	Node Red: MQTT, Azure, Amazon, Cumulocity, ...
<ul style="list-style-type: none"> • Whitelisting for limiting remote asset access 	●	●
<ul style="list-style-type: none"> • Geographical ready deployments and region specific certifications 	ICX35-HWC-A NA, LATAM, AUS, Singapore ICX35-HWC-E EU, RoW, Singapore	OWL 4G EU + WLAN OWL 4G NA + WLAN OWL 4G AUS + WLAN

Technical Specifications

Cellular Routers	M12 Connectivity	RJ45 Connectivity	FE Support (100 Mbit/s)	GE Support (1000 Mbit/s)	IEEE 802.11ac WLAN	VPN (IPSec, OpenVPN)	Programmability	VRRP	SD Card or USB	-40°C to +70°C	Application Environment			Cellular			SIM Cards
											IEC 61850	EN50155 or E-Mark	Class 1 Div 2	24V DC	2G/3G	4G/LTE	
OWL LTE M12	●		●			●	●	●	●	●	●	●	●	●	●	●	2
OWL 4G		●	●		●	●	●	●	●	●	●	●	●	●	●	●	2
ICX35		●	●			●	●	●	●	●	●	●	●	●	●	●	1
Magnum DX940e Router		●	●	●		●	●	●	●	●	●	●	●	●	●	●	1
Eagle 40		●	●	●		●	●	●	●	●	●	●	●	●	●	●	

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