

# INDUSTRIAL AUTOMATION DEPENDS ON RELIABLE DATA COMMUNICATIONS & NETWORK CONNECTIVITY

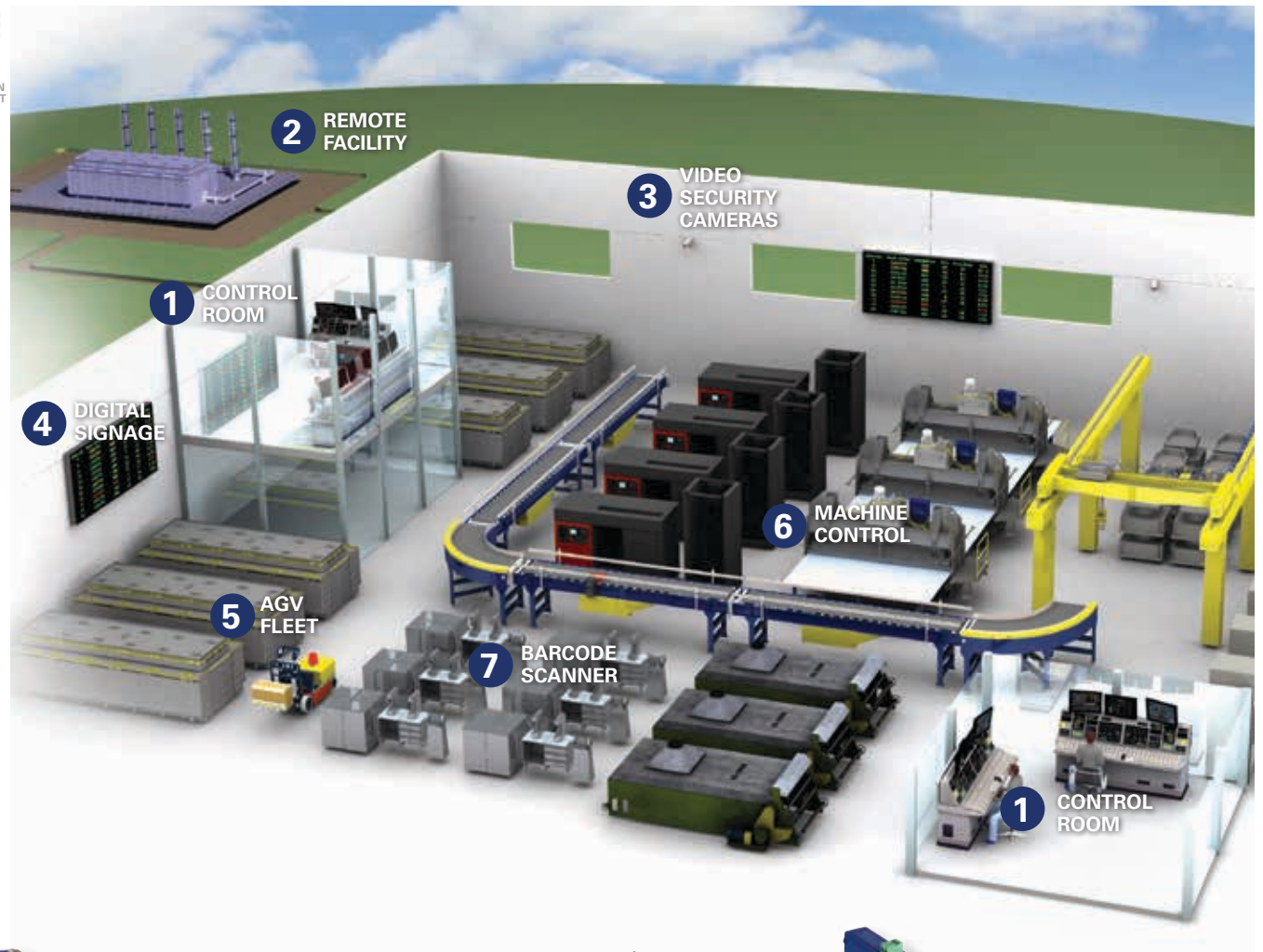
New data communication technologies and protocols continue to appear. At the same time, the world's installed base of existing M2M equipment and legacy infrastructure is far too valuable and useful to discard.

So modern industrial networks must be able to network-enable many different kinds and ages of equipment ensuring that each piece is used to its full potential - even when many of the pieces are technologically generations apart.

Bridging legacy industrial systems with leading edge technologies demands rugged, reliable, wired and wireless data communication solutions. Proven in the most demanding environments, B+B SmartWorx' network connectivity solutions can provide trouble-free data communication between disparate devices and protocols.

Whether you're designing a completely new networking system, retrofitting an existing installation, or looking for ways to extend your network's edge, B+B SmartWorx can provide the right data communications solution. From legacy serial equipment to cellular M2M, we'll help you network-enable just about anything, just about anywhere.

- Wireless cellular routers, radio modems, I/O
- Wi-Fi routers, access points, bridges, serial servers, modules
- Ethernet switches, routers, extenders
- Ethernet serial servers, gateways, media converters
- USB converters, isolators, hubs, extenders
- Serial converters, isolators, repeaters, surge protectors, cards
- Turnkey and custom engineered solutions



**1**  
**CONTROL ROOM**  
Industrial Serial Converter  
Model# 485LDRC9



**2**  
**REMOTE FACILITY**  
Cellular Router  
Model# Spectre LTE & 3G series



**3 4**  
**SECURITY CAMERA SYSTEM & DIGITAL SIGNAGE**  
Mini Copper-to-Fiber Converter  
Model# IE-MiniMc



**5**  
**AGV FLEET**  
Wireless Access Point  
Model# APXN-Q5420



**6**  
**MACHINE CONTROL**  
Modbus Ethernet/Serial Gateway  
Model# MESR901



**7**  
**BARCODE SCANNERS**  
Mini Ethernet/Serial Server  
Model# VESP211

# INDUSTRIAL AUTOMATION DEPENDS ON RELIABLE DATA COMMUNICATIONS & NETWORK CONNECTIVITY



## CELLULAR ROUTERS

- 3G: HSPA+/UMTS/CDMA/EDGE/GPRS
- 3G: 14.4 Mbps download, 5.5 Mbps upload
- 4G: LTE, EVDO, CDMA, UMTS, GSM
- 4G: 100Mbps download, 50 Mbps upload
- 10/100 Ethernet, 802.11b/g/n, Modbus, WiFi option
- VPN: IPsec, OpenVPN, PPTP, L2TP, EasyVPN, GRE
- DHCP, NAT/PAT/NAT-T, VRRP, DynDNS, VLAN, SMS, NTP
- Security: HTTPS, SSH, Firewall functions



## INDUSTRIAL 10/100 MINI MEDIA CONVERTERS

- Cabinet-to-cabinet connectivity (I/O to PLC)
- Communication distances over 100 meters
- EMI/RFI shielding against transients, surges, spikes
- Secure, tamperproof networking via fiber
- NEMA TS2 (select models); IEEE 802.3af compliant
- 10/100 and 10/100/1000Mbps options
- PNP, auto-negotiation, auto-cross (twisted pair cable)
- PoE, DC, AC, USB power options; wide temperature



## INDUSTRIAL SERIAL CONVERTERS

- Extend data up to 1.2 km (4,000 ft.)
- 2 kV optical isolation on input/output
- Wide operating temperature (-40 to +80 °C)
- Modbus compatible
- Automatic Send Data Control
- UL Recognized, NEMA TS2, C1/D2 options



## WIRELESS ACCESS POINTS

- 802.11a/b/g/n (2.4, 5 GHz)
- Combo access point/client; up to 10 WiFi clients
- One or two serial ports, one Ethernet 10/100 port
- 2 kV serial ESD surge suppression
- 5-36 VDC variable power supply, PoE 802.3af
- Wide operating temperature (-40 to +85 °C)
- Advanced Enterprise class wireless security



## MODBUS ETHERNET/SERIAL GATEWAYS & INDUSTRIAL SWITCHES

- Managed, unmanaged, PoE/PoE+
- UL Class 1/Division 2; NEMA TS 2 options
- Ethernet enable serial devices
- Real-time web managing
- Modbus TCP, ASCII, RTU, master/slave flexibility
- Serial DB9 or TB, copper, fiber, Ethernet pass-through
- Wide operating temperature (-40 to +80 °C)
- Wide 10-58 power range



## ETHERNET MINI SERIAL SERVERS & MEDIA CONVERTERS

- UL 60950, 61000-6-2 EMC Level 3
- Ultra compact design fits in tight installations
- IEEE802.3u 10/100BaseT, auto-detecting
- RS-232, RS-422/485, and RS-232/422/485 models
- Wide operating temperature (-40 to +80 °C)
- Wide 10-30 VDC voltage input
- IP30 metal enclosure

B+B SmartWorx provides a complete line of data communication solutions for industrial automation. B+B SmartWorx' networking connectivity is found throughout the facility – controlling and monitoring, connecting and protecting mission critical data networking systems.



PROCESS CONTROL



ROBOTICS



MACHINING  
CENTERS



DISPENSING



PACKAGING/  
LABELING



WAREHOUSING/  
DISTRIBUTION

**Learn More!**

## Industrial Automation Case Studies

Find out how these customers benefitted from B+B SmartWorx' industrial data networking solutions:

- Backhoe Manufacturer Implements Wireless I/O
- Food Plant EtherNetworks Serial Packaging Line
- Wireless Monitoring of Grain Handling Systems
- Embedded WiFi Telematics for Warehouse Forklifts

[www.bb-elec.com](http://www.bb-elec.com)

**B+B SMARTWORX**

**Worldwide Headquarters** - Ottawa, IL USA  
 Technical Support: 1-800-346-3119  
 Customer Service & Sales: 1-888-948-2248  
 Email: [orders@bb-smartworx.com](mailto:orders@bb-smartworx.com)

**European Headquarters** - Galway, Ireland  
 Technical Support: +353 91 792444  
 Customer Service & Sales: +353 91 792444  
 Email: [eSales@bb-smartworx.com](mailto:eSales@bb-smartworx.com)

**Conel s.r.o.** - Czech Republic  
 Customer Service & Sales: +420 465 521 020  
 Email: [sales@conel.cz](mailto:sales@conel.cz)

**IMC Networks Division** - Lake Forest, CA USA  
 Technical Support: 1-800-346-3119  
 Customer Service & Sales: 1-949-465-3000  
 Email: [sales@bb-smartworx.com](mailto:sales@bb-smartworx.com)