

PETROLEUM,
OIL & GAS
Connectivity Solutions




B&B ELECTRONICS
Make The Right Connections



Extending the Network Edge for Specialized Industries

We offer a complete line of products designed to expand networking capabilities into petroleum, oil, and natural gas and other demanding environments where monitor and control were previously unreachable. Learn more about these solutions...

Fossil fuel exploration and production take data networking into some of the harshest environments on the planet. Farther downstream, in the pipelines, the refineries and even the local gas station, conditions are still far from ideal. Whether your application involves monitoring, control or security, and whether your connections need to be wired or wireless, B&B Electronics designs and builds rugged, reliable M2M products and solutions that ensure that your data - as well as the fuel - will get where they need to go.



Intelligently Controlling Oil and Gas Generation, Production and Distribution Starts with Smarter Data Communications

Throughout the traditional energy production and distribution infrastructure, B&B Electronics is there. We have experience in serving the full spectrum of energy industry applications, whether in upstream exploration and production or downstream in refineries, pipelines and local gas stations. We bring thirty years of wired and wireless network expertise in all types of harsh and hazardous environments. Whether you're building a new system or expanding or reorganizing an existing one, B&B Electronics' engineers can help you envision your new network configuration, then select and install the right data communication bridges, routers, and gateways.

B&B Electronics brings focused solutions to oil and gas industry applications. Our rugged solutions provide trouble-free data communications. B&B Electronics offers more than 7,000 products for machine-to-machine (M2M) connectivity and data communications solutions:

- **Wireless cellular routers, WiFi cellular routers**
- **Wireless radio modems, I/O**
- **Wi-Fi access points, routers, bridges, serial servers, modules**
- **Class 1/Division 2 rated products**
- **Telematics**
- **Serial converters, isolators, repeaters, surge protectors, cards**
- **Ethernet switches, routers, extenders**
- **Ethernet serial servers, gateways, media converters**
- **Turnkey and custom engineered connectivity solutions**
- **Serial converters, isolators, repeaters, surge protectors, cards**
- **USB converters, isolators, hubs, extenders**

For more than three decades, B&B Electronics has built a reputation as a global source for best-in-class rugged, reliable wired and wireless connectivity and communications solutions. Backed by strong technical support online, on the phone and in the field, B&B Electronics' products are known for being simple to order, simple to use and simple to install.

We design, build and deliver connectivity and communication solutions optimized for an ever-expanding range of applications, with a strong track record of performance in providing simple and reliable connectivity networks for just the application you're creating. Whether you're building networks that connect to legacy equipment, making data connections out to the edge of your network, embedding connectivity in your OEM product, or anything in between, B&B Electronics has the experience and technology platform to help you make the right connections.

Deep Expertise in the Data Communications Needs of the Oil and Gas Industries

B&B Electronics supplies a complete line of highly secure connectivity solutions designed for controlling, monitoring and protecting your system in hazardous environments, B&B Electronics' technology is found throughout modern energy generation and distribution systems facilities.



Oil and Natural Gas
Exploration and Production



Petroleum Products Storage



Hydraulic Fracturing



Refineries and Pipelines

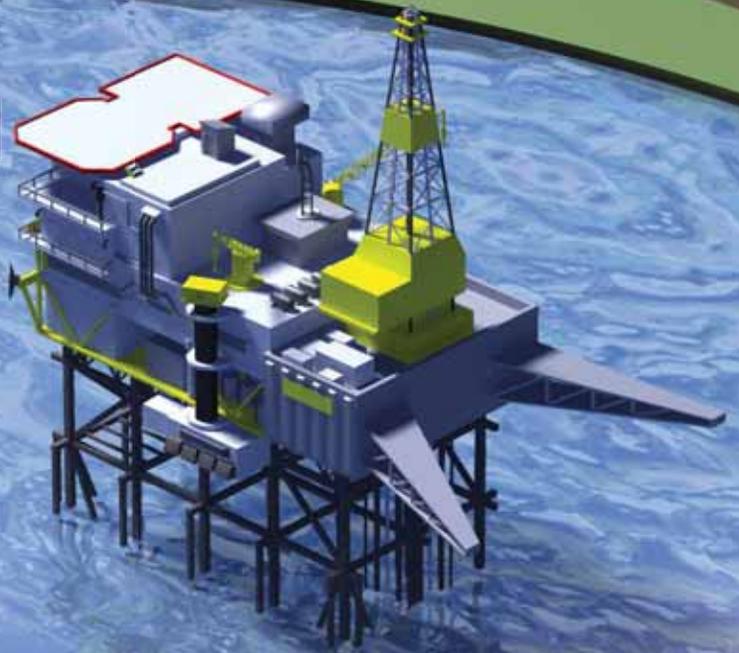


1 Pipelines

2 Tank Farm

4 Hydraulic Fracturing

5 Offshore Oil Exploration





3 Oil Refinery

6 Transport Vehicles

1 Pipelines

2 Tank Farm

3 Oil Refinery

4 Hydraulic Fracturing

5 Offshore Oil Exploration

6 Transport Vehicles



Modbus Ethernet to Serial Gateway
MESR901



Radio Modem
ZP24D-250RM-SR



Industrial Ethernet Switch
ESW205-T



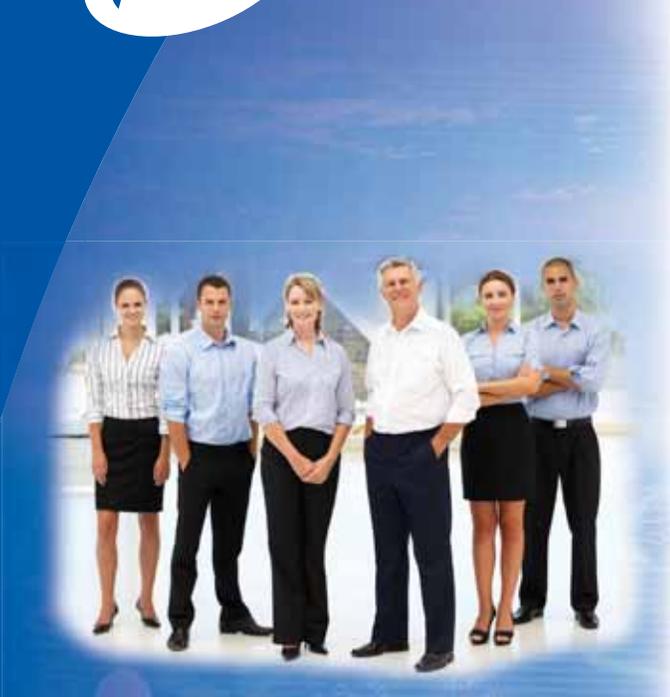
Industrial Wireless I/O
ZXT24-10-222R



Industrial Isolated Serial Repeater
4850PDRI-PH



Telematics OBDII Streamer
HDV100A3



Global Communications Expertise

Our Technical Support team has field-proven experience in data communication applications, connectivity solutions, network design and product installation. Whether you have a simple application question, a complex project installation, or an outside-the-box problem, B&B Electronics' engineers don't just troubleshoot problems after the fact — they can actually prevent and anticipate system design and integration problems before they begin.

All of our data communications solutions are backed by our comprehensive Quality Assurance program and a limited life-time warranty.

The Challenge

Transwestern Pipeline, a major natural gas pipeline company serving the Southwest USA, owned an expensive gas chromatograph that was being underused, so it wasn't providing a satisfactory return on the company's equipment investment. Managers started exploring ways to make better use of their costly hardware without significantly increasing their capital investment.

In their labs and other production facilities, Transwestern Pipeline had a number of other sampling units that worked perfectly well but could only communicate via the Modbus RTU protocol. Unfortunately, the gas chromatograph could only communicate via the Modbus TCP protocol. Although managers considered upgrading their RTU-based sampling units to support Modbus TCP on their Ethernet network, they soon discovered the units could not be upgraded and, at about \$50,000 each, buying new ones was not in their budget. To allow the sampling units to talk with the gas chromatograph, they needed something that could bridge the gap from Modbus TCP to Modbus RTU.

Ethernet Gateway From B&B Electronics Helps Gas Pipeline Company Boost Equipment Utilization

The Solution

After conferring with B&B Electronics' Technical Support experts, Transwestern Pipeline's managers chose B&B Electronics' MESR Modbus Serial to Ethernet Gateway to connect to and collect data from their remote RTU sampling units. The MESR Modbus Gateway allows Modbus ASCII, RTU and TCP devices to communicate freely, which made it possible for Transwestern's remote RTU devices to connect to and share access to the expensive chromatograph gas analyzer, maximizing their investment in their current equipment and avoiding the need for further major capital investments.



Modbus Serial to
Ethernet Gateway
Model MESR901

- Choice of 1- or 2-port designs
- Modbus master/slave flexibility
- Modbus ASCII or RTU on serial ports
- Modbus messaging priority control
(source or function code selectable)

Discover How B&B Electronics Can Simplify Your M2M Communications

With a growing range of robust connectivity platforms for serial, Ethernet, wireless and USB applications and standard-setting technical support capabilities delivered online and on the phone, B&B Electronics can guide you through designing your system and integrating our solutions into your network or product quickly and efficiently. Our Tech Support department is staffed with experts dedicated to helping you re-envision, re-scope, and re-structure your data communication networks – or just support the network already in place. With more than 40 distributors in 60 different countries, we can ensure fast, comprehensive and local customer service and support.

With thousands of solutions and a manufacturing/support footprint throughout North America and Europe, B&B Electronics delivers the platforms, products and professional insight you need to complete your project quickly, so you can focus on your job, not on your network.

B&B Electronics has earned an extensive list of industry certifications and compliance ratings, extending far beyond core ISO and RoHS compliance to include certifications from UL, CE, NEMA, IEEE, IEC and the European Union's WEEE Directive, among others. B&B Electronics' products are built for long-term performance and you can trust us to provide the right solution for your oil & gas management application. Rugged and reliable, our products are backed by a limited lifetime warranty.

Learn more online or call to see how B&B Electronics can create a solution to connect your devices—whether they're all in one rack or spread across the globe.

Visit our website at www.bb-elec.com for access to all our solutions, easy product configurators, tech support diagrams, white papers, and detailed technical data.



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