

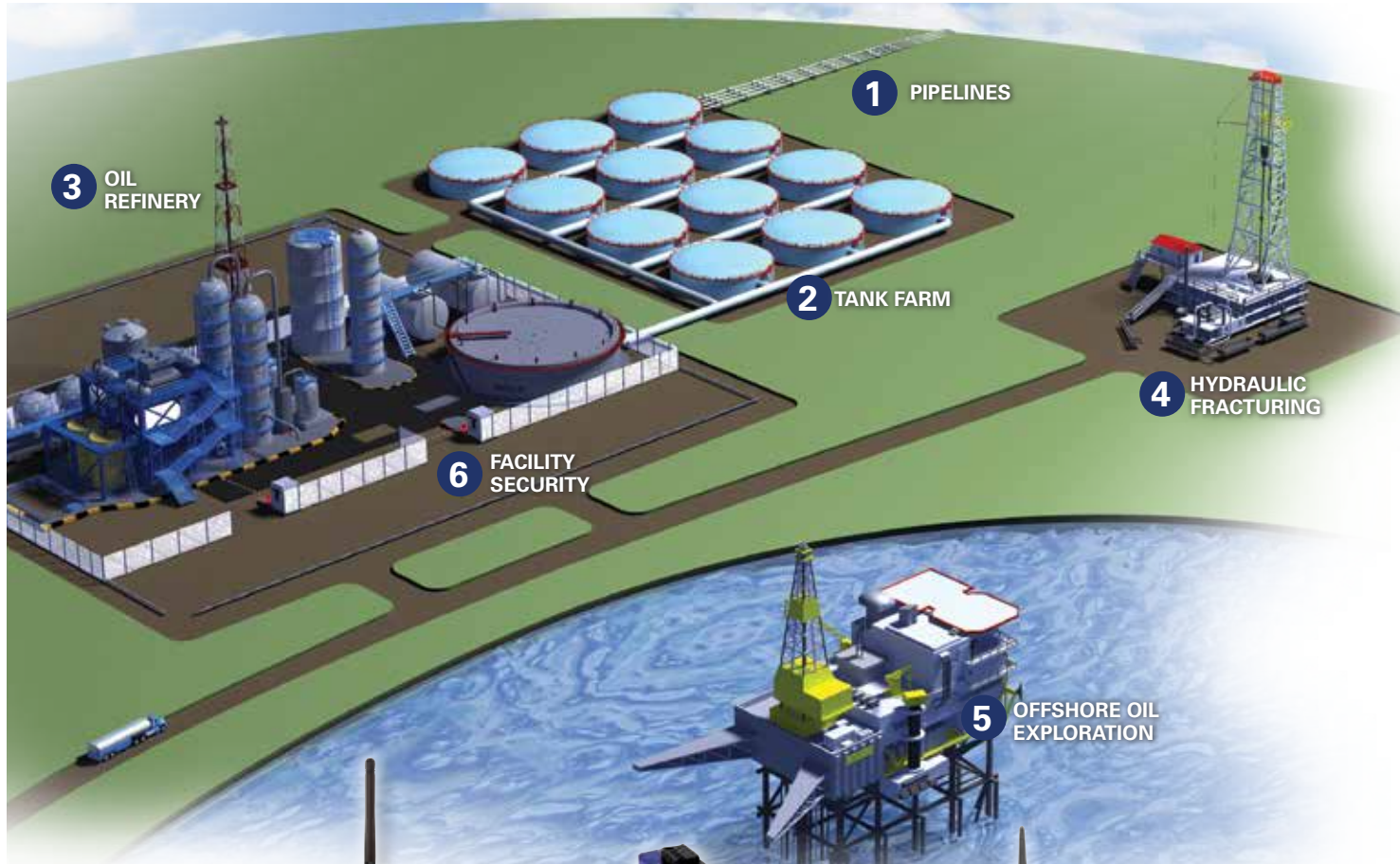
# CONTROLLING PETRO, OIL AND GAS

## GENERATION, PRODUCTION AND DISTRIBUTION STARTS WITH INTELLIGENT COMMUNICATIONS

**B+B SMARTWORX**

Powered by

**ADVANTECH**



Throughout energy production and distribution infrastructures, Advantech B+B is there. We serve the full spectrum of energy industry applications, whether upstream exploration and production, or downstream refineries, pipelines and local gas stations. Since 1981, we have brought wired and wireless networking expertise into all types of harsh and hazardous environments. So, whether you're building a new system or expanding or reorganizing an existing one, Advantech B+B can help you envision a new network configuration and install the right data communication solutions and products.

Advantech B+B offers M2M (machine-to-machine) solutions for oil and gas industry applications for trouble-free connectivity and data communications:

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



**1**

**PIPELINES**  
Medbus Ethernet to  
Serial Gateway  
Model# MESR901



**2**

**TANK LEVEL GAUGING**  
Radio Modem  
Model# ZP24D-250RM-SR



**3**

**OIL REFINERY**  
Industrial Ethernet Switch  
Model# ESW205-T



**4**

**HYDRAULIC FRACTURING**  
Industrial Wireless I/O  
Model# ZXT24-10-222R



**5**

**OFFSHORE OIL PLATFORM/RIG**  
Industrial Isolated Serial Repeater  
Model# 4850PDRi-PH



**6**

**FACILITY SECURITY**  
Ethernet PoE Switch  
Model# EIRP305-24V-T

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### MODBUS ETHERNET/SERIAL GATEWAYS

- UL Class 1/Division 2
- NEMA TS2 options
- One/two port, fiber/copper designs
- Modbus master/slave, serial/Ethernet flexibility
- Modbus ASCII, RTU, TCP
- Modbus messaging priority control (source or function code selectable)



### INDUSTRIAL ETHERNET SWITCHES

- UL/cUL C1/D2 Groups A,B,C,D; IEEE 802.3/u/x
- EN61000-6-2; Shock/Vibration; NEMA TS2 options
- 10/100/1G/10G, managed & unmanaged, PoE and PoE+, stand-alone and modular options
- Copper/fiber, single-/multi-mode port options
- 10/100M, full/half duplex, MDI/MDI-X (auto-negotiate)
- 12-36 VDC and 10-24 VAC dual power input options



### WIRELESS INDUSTRIAL RADIO MODEMS

- UL Class1/Division2 (long range models)
- 900 or 868 MHz, 2.4 GHz with AES encryption
- Up to 40mi/64km (line of sight, antenna)
- RS-232/422/485; Modbus compatible
- Wide temperature: -40 to 85°C
- Wide power input: 10-48 VDC or 18-30 VAC
- Heavy-duty, DIN rail industrial case and components



### INDUSTRIAL ISOLATED SERIAL REPEATERS

- UL, C1/D2 listed; IEC-61850-3, IEEE-1613
- NEMA TS2; Shock/Vibration
- 2 kV optical isolation on input/output/power
- Modbus ASCII/RTU compatible
- Wide temperature: -40 to 85°C
- 10-48 VDC input power
- IP30 metal panel mount case



### POWER-OVER-ETHERNET SWITCHES

- C1/D2, UL/cUL/us, PoE IEEE802.3af/at
- Simplifies powering of remotely located devices
- Managed or unmanaged, 10/100/1G options
- Wide temperature: -40 to 75°C
- Dual power inputs, 24 or 48VDC; alarm output
- 15.4 or 25W power output
- IP30 DIN or panel mount case



### WIRELESS INDUSTRIAL I/O

- UL Class1/Division2, NEMA TS2
- 900 MHz or 2.4 GHz with AES encryption security
- Up to 40mi/64km (line of sight, antenna)
- RS-232/422/485; Modbus compatible
- Wide temperature: -40 to 74°C
- 30 VDC power input; software selectable output
- IP67 case and components for outdoor applications

Advantech B+B supplies a complete line of highly secure connectivity solutions for controlling, monitoring and protecting systems in hazardous environments. Advantech B+B technology is found throughout legacy and modern energy generation and distribution systems and facilities.



**OIL AND NATURAL GAS EXPLORATION AND PRODUCTION**



**PETROLEUM PRODUCTS STORAGE**



**HYDRAULIC FRACTURING**



**REFINERIES AND PIPELINES**

**B+B SMARTWORX**

Powered by **ADVANTECH**

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