

# StrataConnect™ DigitalBRIDGE™

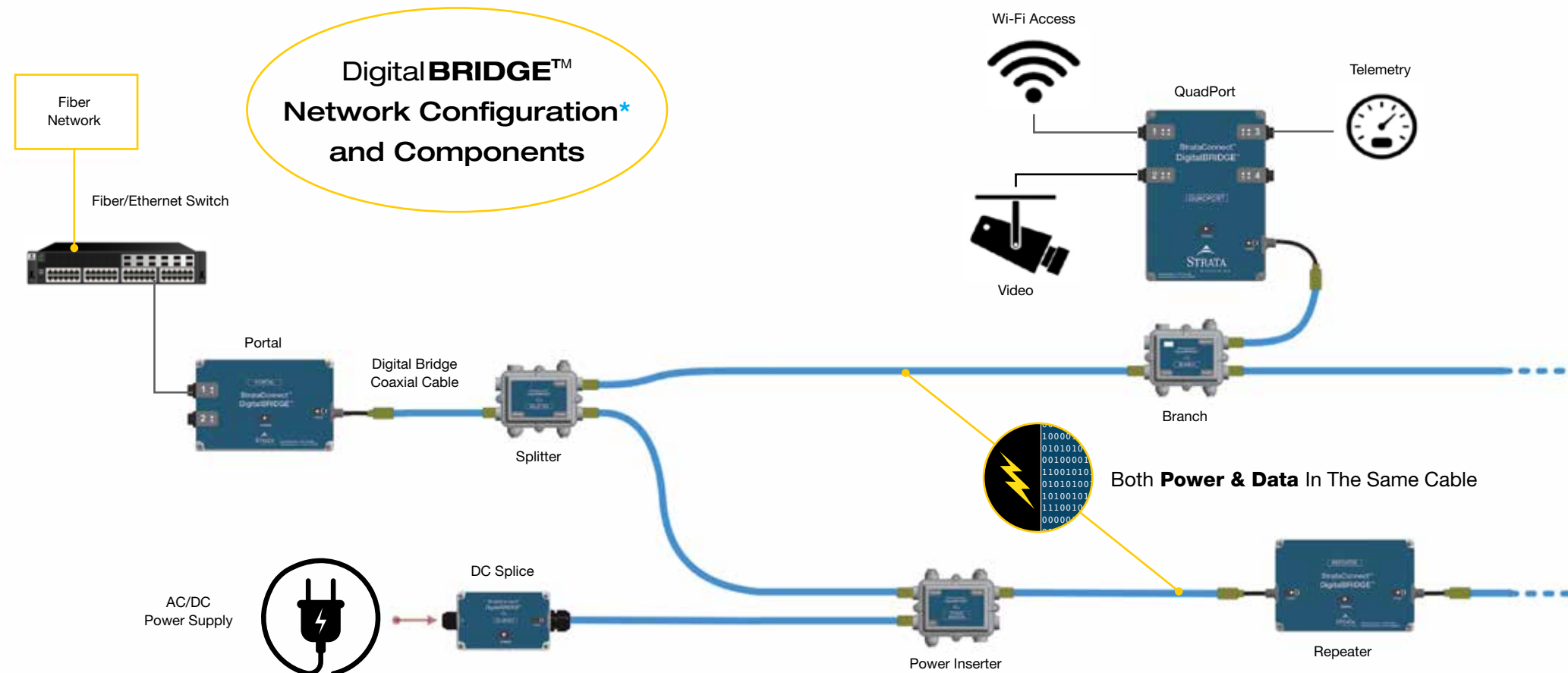
BRIDGING POWER & DATA TO THE EDGES OF YOUR MINE



POINT-TO-MULTIPOINT PoE DISTRIBUTION



POWER | CONNECTIVITY | DEPLOYMENT



\*This network diagram is for illustrative purposes only. Networks can be configured many ways and are completely customizable.

### Components:

- **Portal** - Bridge between the existing network and DigitalBRIDGE.
- **QuadPort** - Four (4) Power-over-Ethernet (PoE) ports to supply power and data backhaul for the inclusion of PoE end-point devices.
- **Power Inserter** - Places DC power onto the coaxial cable for operation of system components and end-point devices.
- **Repeater** - Digitally regenerates the data signal enabling cable segments to be extended indefinitely.
- **DC Splice** - Adapts regular DC power cable to coaxial cable format. Protects the power supply from short circuits and excessive voltage.
- **Branch** - Taps a portion of the power and data signal to enable a QuadPort to be spliced into the line.
- **Splitter** - Evenly divides the coaxial cable so the system can proceed down multiple headings.

### Specifications:

#### PoE Cable:

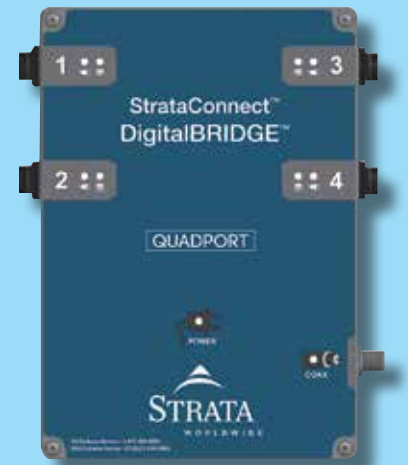
- Low Smoke Zero Halogen (LSZH) sheathing designed for underground applications
- Flooded cable for reliable long term operation in wet or in humid environments
- Ultra-low resistance cable (ULR)
- Transient protection

#### Connectivity 10/100/1000 Ethernet

- VLAN & QoS Support
- LLDP / CDP
- AVB / PTP Support

#### Power

- PoE & PoE+
- Direct Current (DC): 24 to 60 volts DC



### POINT-TO-MULTIPOINT PoE DISTRIBUTION

StrataConnect DigitalBRIDGE™ is a point-to-multipoint Power-over-Ethernet (PoE) digital network for underground applications. It delivers both power and high speed data over a single coaxial cable to any location where digital end-point devices are desired. DigitalBRIDGE™ provides data speeds and capabilities comparable to fiber and can be used for Voice-over-IP (VoIP) communications, Wi-Fi and cellular access, video, telemetry, tracking, tele-remoting and more.

### Power and Connectivity where you need it, when you need it.

DigitalBRIDGE™ is simple to install and maintain, and is fully recoverable. Network management can be completed by on-site personnel, without the need for specialized technicians. Utilizing off-the-shelf tools and standard procedures, personnel can cut and splice the coax cable to install or remove PoE end-point devices anywhere along the network.

DigitalBRIDGE™ is an ideal solution for extending digital coverage beyond the reach of fiber, with the option to travel in multiple directions. It can also be used as a stand-alone system.

CAPABILITIES	BENEFITS
<ul style="list-style-type: none"> <li>• Wi-Fi access - VoIP</li> <li>• LTE/5G cellular</li> <li>• Voice communication</li> <li>• Environmental monitoring and remote control (pumps, fans, sensors)</li> <li>• Gas detection</li> <li>• IP cameras</li> <li>• Tele-remote operation</li> <li>• Fleet management</li> <li>• Refuge station connectivity</li> <li>• Cisco Discovery Protocol (CDP) Support</li> <li>• Damaged fiber replacement</li> </ul>	<ul style="list-style-type: none"> <li>• Power and data in single cable*</li> <li>• Flexible and changeable cable lengths – no premium for short runs</li> <li>• Up to 6500 feet (2000m) without a repeater or dedicated power source</li> <li>• Power injected at any point and travels in both directions</li> <li>• Flexible placement of end-point devices</li> <li>• Simple to reconfigure layout and change end-point device locations</li> <li>• Not proprietary to specific brands of end-point devices</li> <li>• No need for specialized technicians – fully manageable by on-site personnel</li> <li>• Save time in basic planning, easy installation and low maintenance</li> <li>• Fully recoverable</li> </ul> <p>* Direct Current (DC): 24 to 60 volts DC Up to 1 Gbps physical layer speed; typical end-to-end TCP throughput = 400-700 Mbps</p>



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