

StrataConnect™ DigitalBRIDGE™

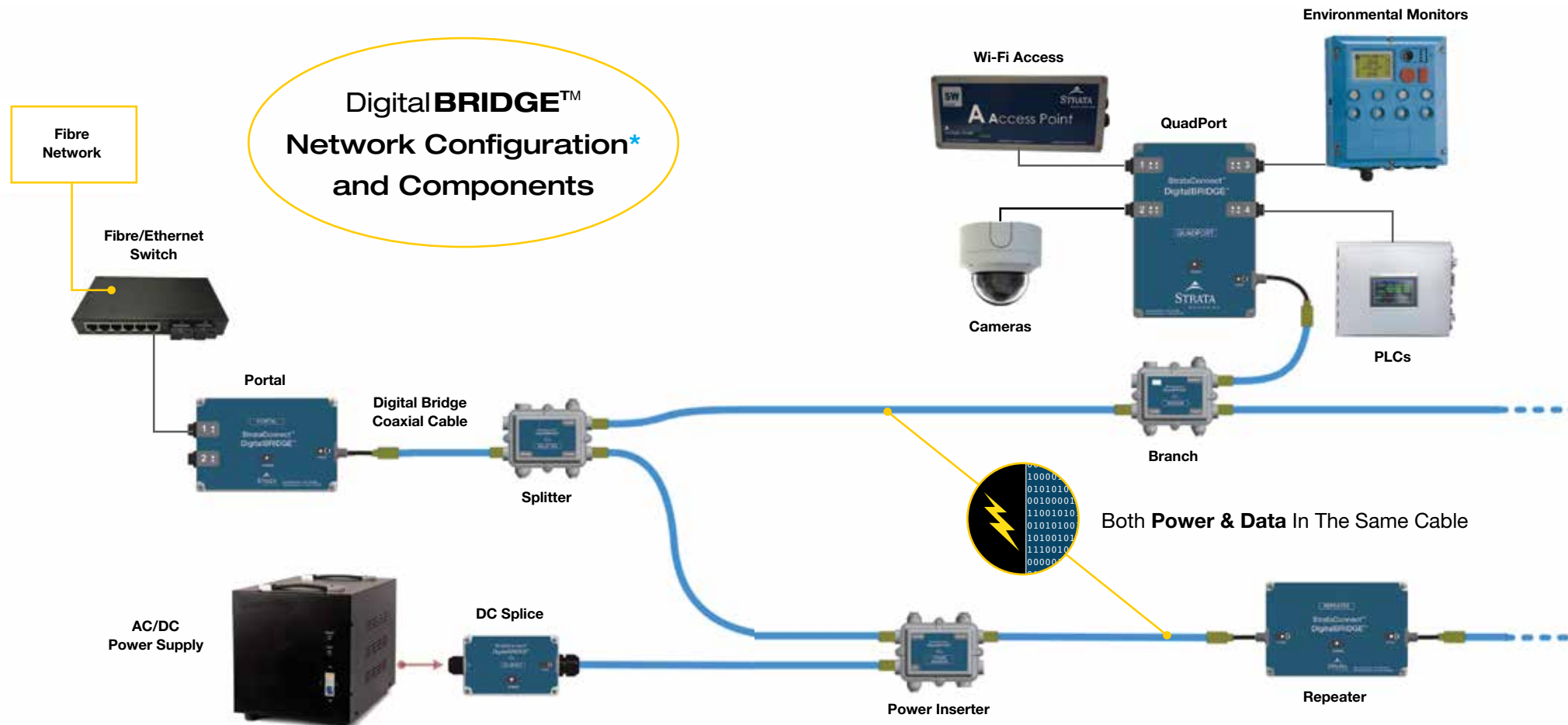
BRIDGING POWER & DATA TO THE EDGES OF YOUR MINE



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 customisable.

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:

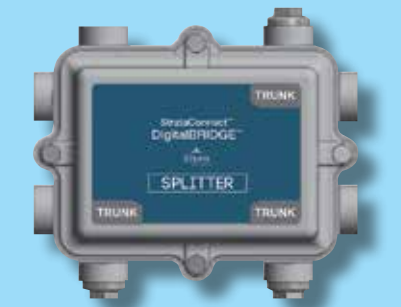
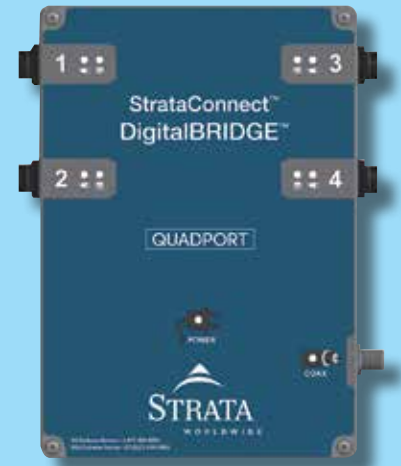
- Low Smoke Zero Halogen (LSZH) sheathing designed for underground applications
- Flooded cable for reliable long term operation in wet or in humid environments
- Ultra-low resistance cable (ULR)
- Transient protection

Connectivity 10/100/1000 Ethernet

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

Power

- PoE & PoE+



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 fibre and can be used for Voice-over-IP (VoIP) communications, high-speed Wi-Fi data 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 specialised technicians. Utilising 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 fibre, with the option to travel in multiple directions. It can also be used as a stand-alone system.

CAPABILITIES

- Wi-Fi access
- Voice communication
- Environmental monitoring and remote control (pumps, fans, sensors)
- Gas detection
- Video surveillance
- Backhaul from ore drive to surface
- Tele-remote operation
- Fleet management
- Refuge station connectivity
- Cisco Discovery Protocol (CDP) Support
- Damaged fibre replacement

BENEFITS

- Power and data in single cable*
- Dedicated medium
- Flexible and changeable cable lengths – no premium for short runs
- Up to 2000m without a repeater or dedicated power source
- Power injected at any point and travels in both directions
- Flexible placement of end-point devices along the cable
- Simple to reconfigure layout and change end-point device locations
- Not proprietary to specific brands of end-point devices
- No need for specialised technicians – fully manageable by on-site personnel
- Save time in basic planning, easy installation and low maintenance
- Remotely managed
- Fully recoverable

* Direct Current (DC): 24 to 60 volts DC

Up to 1 Gbps physical layer speed; typical end-to-end TCP throughput = 400-700 Mbps

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