



**DigitalBRIDGE Plus+**  
Adding Ethernet to Leaky Feeder

**POWER | ETHERNET | RADIO**

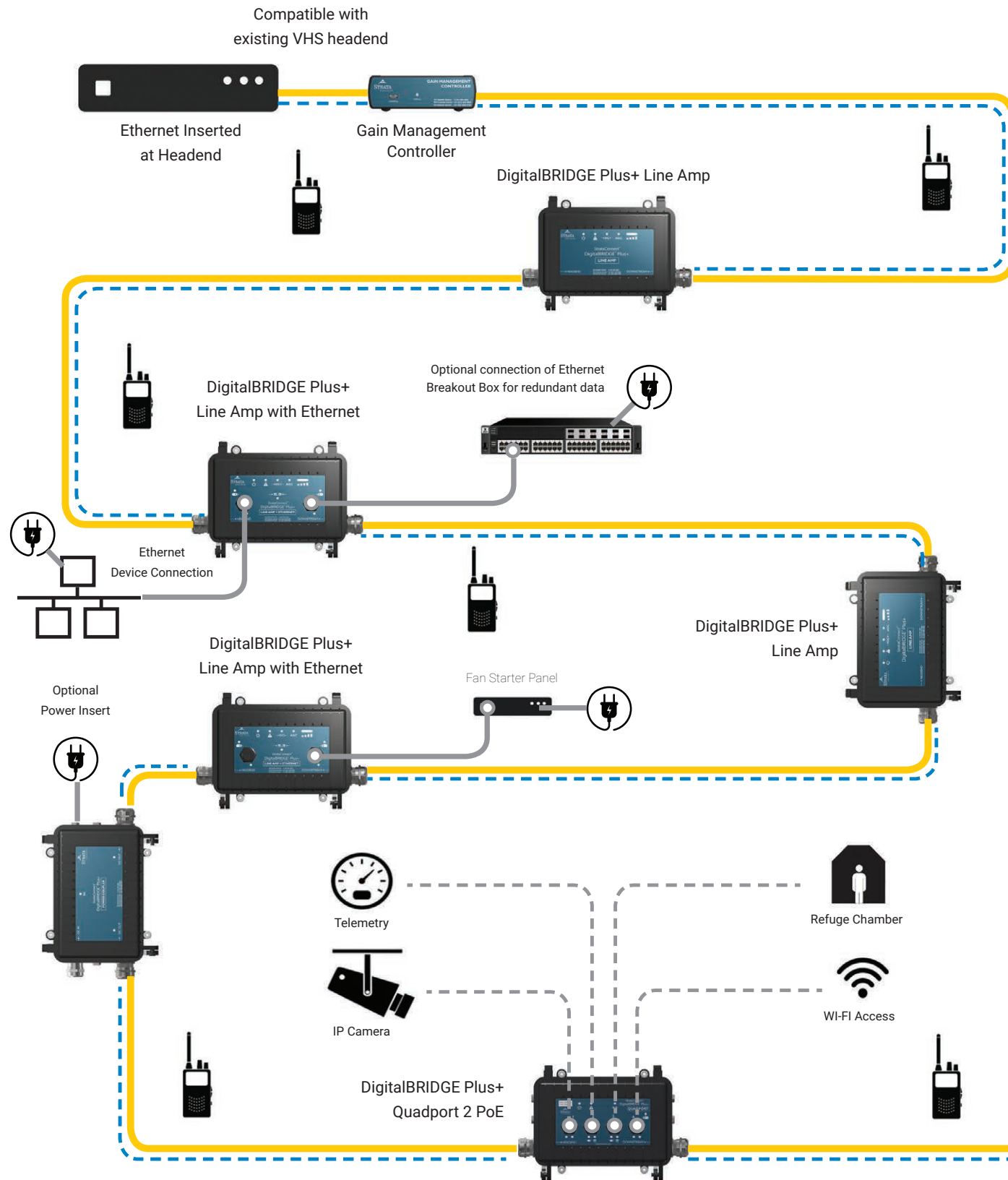
Leveraging the convenience and dependability of leaky feeder networks, DigitalBRIDGE Plus+™ enables the integration of high-speed Ethernet into the leaky feeder cable for connectivity and powering of choice Ethernet end-point devices. Radio communications are unaffected.

**Start where you are.**

Upgrade an existing VHF leaky feeder infrastructure with the simple inclusion of DigitalBRIDGE Plus+™ high-quality bi-directional line amplifiers or build from scratch the most advanced leaky feeder network on the market. Insert Ethernet at the headend, or at an Ethernet Breakout Box underground and connect leaky feeder to existing fiber networks via a DigitalBRIDGE Plus+ line amplifier with Ethernet. Ethernet end-point devices can be installed anywhere along the cable receiving power and data connection through the DigitalBRIDGE Plus+ Quadport 2.

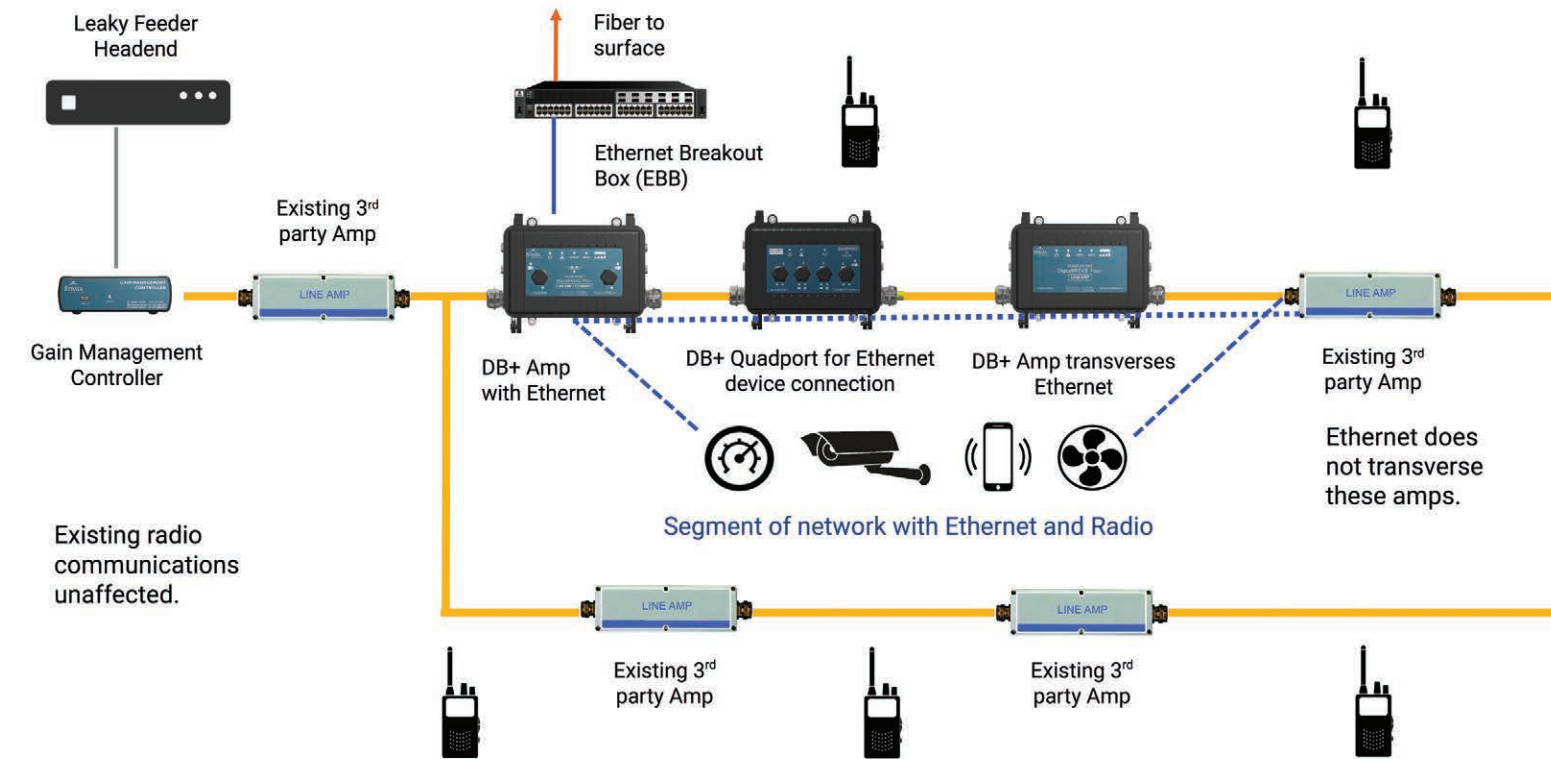


## STANDALONE NETWORK CONFIGURATION & COMPONENTS SOLUTIONS



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

## INTEGRATED NETWORK CONFIGURATION & COMPONENTS SOLUTIONS



| CAPABILITIES  | BENEFITS   |
|---|--|
| <ul style="list-style-type: none"> <li>• Analog and digital radio, high-speed Ethernet and power distribution on a single cable</li> <li>• Wi-Fi access – VoIP</li> <li>• Environmental monitoring and instrument 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>• Compatible with proprietary network management systems</li> </ul> | <ul style="list-style-type: none"> <li>• Single coaxial cable network – Power, Ethernet &amp; VHF</li> <li>• Fully interoperable with existing leaky feeder components for improved performance</li> <li>• Ethernet access on existing leaky feeder network</li> <li>• Power end-point devices without separate power source using the QuadPort 2</li> <li>• Flexible placement of end-point devices</li> <li>• Simple to reconfigure and change end-point device locations</li> <li>• Optional power injected at any point along cable - travels in both directions</li> <li>• Auto level control for consistent gain management, regardless of the number of channels operating simultaneously</li> <li>• Multi-point distribution</li> <li>• Bi-directional diagnostics and voltage detection - segment by - segment problem location</li> <li>• Fully manageable by on-site personnel</li> </ul> |

INDIVIDUAL NETWORK COMPONENTS



DigitalBRIDGE Plus + VHF Bi-Directional Amplifier

- Fully interoperable with 3rd party line amps
- Functions in all VHF band frequencies
- Unique Gain Control
- Passes Ethernet Signal
- Recommended placement every 1000 to 1600ft (350-500m)\*



DigitalBRIDGE Plus + VHF Bi-Directional Amplifier with Ethernet

- Two Ethernet ports providing an uplink to existing fiber networks and/or data connection to any Ethernet compatible equipment such as pumps, fans, environmental sensors, cameras, wireless networks, electrical switchgear, PLC's etc.
- Can provide backhaul to Cisco switch



Quadport 2 POE & DC

The DigitalBRIDGE Plus+ Quadport 2 for VHF leaky feeder systems breaks out standards-compliant Ethernet ports right where they are needed, supplying power and data backhaul for any industrial Ethernet device, while also passing VHF voice radio communications.

SPECIFICATIONS:

- Digital: Up to 1 Gbps physical layer speed: typical end-to-end TCP throughput = 400-700Mbps
- Analog max gain > 25dB
- 25 MHz bandwidth in leaky feeder up and down link frequencies
- RF power output = +9dBm
- Direct Current (DC): 24 – 48 volts

\*Distance dependent on PoE connections



Gain Management Controller

Automatically tunes all Line Amps along the network



Splitter

Evenly divides both the VHF radio signal and the high-speed broadband data signal to break into multiple directions.



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