



# Solutions OVERVIEW

Too often, in building communication is limited due to building materials which can cause poor penetration of Radio Frequency (RF). Thick concrete walls, low- emission glass windows, and steel reinforced floors can block out or weaken wireless signals.

It's critical that public safety personnel and first responders have reliable emergency responder radio coverage no matter the environment.

#### **ENABLING EMERGENCY COMMUNICATIONS INDOORS**

Being able to communicate with their public safety two-way radio systems in-buildings is crucial for the first responders to execute time-sensitive and mission-critical tasks to protect the public. Emergency Responder Radio Communications Systems (ERRCS) are often installed to provide these necessary means of communication.

The Avari® VitalLink™ Digital ERRCS Distributed Antenna System (DAS) is perfectly suited for large and complex mission-critical communication deployments. Leveraging the latest digital hardware technology and intelligent software, Avari® offers the industry's most advanced and resilient DAS architecture with self-healing capability for the world's most critical public safety communication infrastructure.

# EXPERTS IN MEDIUM-LARGE COMPLEX PUBLIC SAFETY RADIO COMMUNICATION DEPLOYMENTS

Key Challenges the Avari® VitalLink™ Series can Overcome

- 1. Physical Size, complexity, and distance
- 2. Fiber availability, and flexibility
- 3. Multiservice, and content aggregation
- 4. Reliability, and redundancy
- 5. Scalability



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#### **ENABLING EMERGENCY COMMUNICATIONS INDOORS**

#### WHAT SETS THE AVARI® VITALLINK™ SERIES SOLUTION APART?

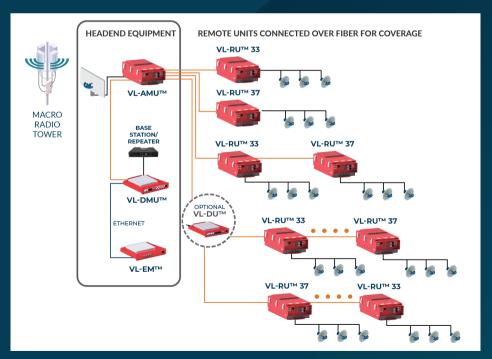
- Long reach with no loss of signal quality
- Channelized operation with advanced software-configurable digital filters (64 channels)
- Automatic digital gain control with squelch to ensure best audio quality
- Oscillation detection and suppression
- No off-air BDA required
- 1 Gbps Ethernet backhaul over fiber
- System redundancy with self-healing capability
- Flexible deployment topology with star and daisy-chain configurations
- Multi-band support with high power output per band

#### **AVARI® VITALLINK™ SERIES IN ACTION**

The Avari® VitalLink™ Direct Master Unit (VL-DMU™) receives radio frequency (RF) signals from donor base stations. The VitalLink™ Air Master Unit 33/37 (VL-AMU™) is an integrated off-air headend unit that is designed for off-air interfacing to public safety base stations.

Both hosts convert the RF signal into digital packets and then delivers the content to the medium-powered remote radio units.

The optional digital distribution unit (VL-DU™) enables an extra level of flexibility in topology and redundancy architectures.



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