

UNIFIED HETEROGENEOUS NETWORK TRANSPORT CAPABILITY (HETNET)

POINT-TO-POINT (PTP)

- High-capacity (400Mbps per channel)
- Interoperable with legacy HCLOS radios part of WIN-T TRC-190 and USMC MRC-142
- Long range (>100 km)
- Frequency agility: simultaneous Band 3, 3+ and Band 4
- Robustness
 - First tactical MIMO system
 - Non-line-of-sight for urban environments
- Dual Band parabolic or panel antenna

OPERATIONAL BENEFITS

- Resilient backhaul for Mission Command, 4G-LTE, full motion video
- Long range dispersed operations, JNN-TCN connectivity and interoperability
- Dual PTP or Relay modes reduce SWaP and number of masts
- Simultaneous operation of PTP on channel 1 and PMP/Mesh on channel 2, provides long range high-capacity reach back to multiple terminals at the edge

POINT-TO-MULTIPOINT (PMP)

- Up to 150Mbps wide area network
- High mobility mode
- Frequency agility: simultaneous Band 3, 3+ and Band 4
- Robustness
 - First military MIMO system
 - Non-line-of-sight for urban environments
- 12 to 30 remotes depending on mode
- Uses sector/omnidirectional antenna at base station, parabolic/panel antenna at remote station

OPERATIONAL BENEFITS

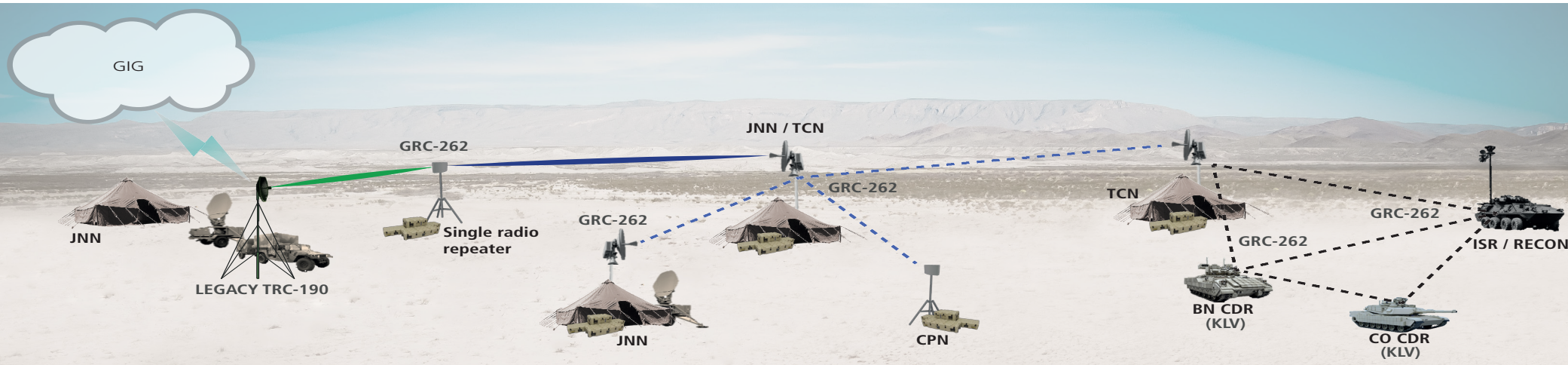
- High capacity distribution layer supports full motion ISR video and data
- Symmetrical links provide better network efficiency and support sensor aggregation
- Better SWaP: multiple shots to remote units with a single mast
- Enhanced situational awareness
- Simultaneous PMP with PTP trunk converges all remote traffic to HQ

UNIVERSAL NETWORKING WAVEFORM (UNW)

- Up to 80Mbps wide area network
- Self-organizing without configuration
 - Mobile and aerial relay node
- Frequency agility: simultaneous Band 3, 3+ and Band 4
- Robustness
 - Self-healing, no single point of failure
 - Non-line-of-sight for urban environments
- Scalable beyond 50 nodes, discovery under two seconds

OPERATIONAL BENEFITS

- Highest capacity OTM tactical mesh
- Seamless and self-organizing
- Small SWaP system suited to early entry and to key leader vehicles
- Simultaneous UNW, PTP and/or PMP off-loads mesh, enhances network robustness, scalability and survivability



CAPABILITIES

FLAT

- Allows for efficient convergence of legacy LOS Systems to One Network Architecture
- TRILOS Unified HETNET meets all ATH and OTM LOS Requirements
- Interoperable with Air Defense, Navy & USMC LOS

FAST

- Quick deployment capabilities (Transit Case or Mounted on Mobile Platforms)
- UNW Mesh Network is self-forming and self-healing (Discovery < 2 Seconds)
- 1Gbps total system throughput

MOBILE

- X-510 with UNW Mesh supports mobility of KLV, Heavy Platforms and remote sensors
- Three-channel system capable of integrating COTS waveforms (Wi-Fi, LTE, TSM-X)

PROTECTED

- ECCM features provide frequency hopping in PTP and PMP
- Multi-layered diversity mitigates EW threats (Frequency, Channel, Waveform & Route)
- Operates in satellite denied environments

SPECIFICATIONS

- Band 3, Band 3+ (1.35-2.31GHz), and Band 4 (4.40-4.94GHz)
- 2 Software defined channels with simultaneous operations (up to 400Mbps/ch.)
- ECCM for network resilience
- Industry leading system gain, range and receive sensitivity with low latency
- Embedded AES-256 crypto for TRANSEC
- Flexible array of antennas supporting multiple configurations

One Radio In One Network

TRILOS KIT



Ultra Electronics
TCS
5990 Chemin Côte-de-Liesse
Montréal, Québec
H4T 1V7
Canada
Tel: +1 514 855 6363
Tel: +1 844 889 6363 (USA toll-free)
www.ultra-tcs.com

making a difference



LEADERS GUIDE TO TRILOS EXPEDITIONARY COMMS



TCS

