MOBILE BROADBAND EDGE NETWORK

Modernizing tactical communications is an uppermost national defense priority.

Even with actionable SA, forces face obstacles to issuing, receiving and executing mission instructions. Warfighters are weighted down with multiple non-inter-operating radios and equipment. Despite costing tens of $1000s, incompatible waveforms require manually switching between devices; to say nothing of any kind of automatic failover. In a heated situation, this exposes forces to unacceptable risk. By the time acquisition processes specify, compete, award, produce, test, and field noble solutions to the interoperability problem, equipment can be years out of date already. The goal has been elusive because acquisition strategies continue to disregard robust, mature commercially available technologies.

PRIVATE LTE NETWORK

The exact same connectivity and services as a public cellular network. There are no annual license fees when you own the infrastructure.

INTEROPERABLE WITH ANY IP-BASED NETWORK, SENSOR OR DEVICE

Connect any LTE or backward-compatible 5G sensor or device. Interoperate with legacy radios, networks, hardware.

ONBOARD COMPUTER

An embedded computer hosts onboard EPC and a native TAK server, bringing processing power for applications and storage to the tactical edge.

MESHED MANET FOR BACKHAUL

Fully decentralized, massively scalable, self-healing, self-forming backhaul network. Compatible with existing military MANET networks.

BANSHEE MOBILE RADIO
POWER AND INTEGRATION AT THE TACTICAL EDGE

- Private, carrier grade 3GPP LTE coverage with meshed backhaul network.

- Secure, compatible with CSfC for classified, and in-line encryptors for higher classification requirements.

- Band agile for frequency deconfliction and EW resistance/resilience.

- Fully operational network completely standalone or interoperable with any IP-based reachback network.

- Simplify CONOPS with one network, Bring Your Own Device (BYOD).

- Easy to train, setup, and operate.

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CREATIVE INTELLIGENCE. APPLIED.

BANSHEE MOBILE RADIO (BMR)
SPECIFICATIONS

CAPABILITIES
- Up to 800 end point connections per node
- Up to 7 km radius LTE coverage area per node
- Up to 300 Mbps download / 100 Mbps upload
- Onboard TAK processor

FREQUENCIES AVAILABLE
- LTE: 700 MHz–6 GHz, FDD Bands: 2/66, 1/3, 3/7, 1/7, 7/7, 7/66, 48 CBRS
- MANET Backhaul: L, S, High C, Low C
- Band agile for frequency deconfliction and to evade EW

POWER
- 90-264 VAC, DC compatible option
- Max 360W, Typical 280W

ENCRYPTION
- Standard: 128 AES
- Optional: Double-wrapped 256 AES, compatible with NSA Type 1 encryptors, CSfC solutions

PHYSICAL
- Dimensions: 15.16W x 8.86H x 7.28D in (385W x 225H x 185D mm)
- Weight: Approx. 24.25 lbs (11 kg) depending on option selections

ENVIRONMENTAL
- Operating: -40°F to +131°F (-40°C to +55°C)
- Storage: -40°F to +158°F (-40°C to +70°C)
- IP65 water and sand/dust resistant

COMPLEMENTARY EQUIPMENT
BANSHEE TACTICAL RADIO (BTR) VARIANT
- Up to 256 end point connections per node
- Up to 1 km radius LTE coverage area per node
- Up to 300 Mbps download / 100 Mbps upload
- Onboard TAK processor
- 20-40 VDC (dual rechargeable BA-2590)
- 17 lbs (7.71 kg) including batteries
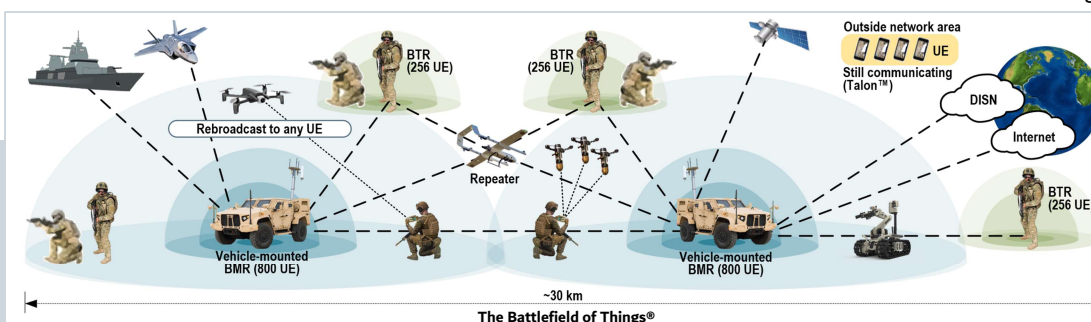- Man-portable form factor

Talon™ AND CELLBLOCK
- Total UE security, EW resistant/resilient
- Self-powered, attaches to Samsung handset
- Breadcrumb reachback to the network from UE outside the coverage area
- Device-to-device voice, text, data, video while outside the network coverage area

VEHICLE MOUNTABLE

Banshee enhances deployability and improves survivability by replacing a fixed location CP with a vehicle-based CP. Banshee sustains the network while the vehicle is in motion to enable a **decentralized, mobile, never offline Command Post**.

The backbone extends vehicle-to-vehicle connectivity up to 7 km radius per node. At the halt, Banshee can connect to additional antennas mounted to an external mast to extend the range of the network up to 30 km (LOS-dependent, tested).

INFINITELY SCALABLE NETWORK

There is no theoretical limit to the number of nodes that form the Banshee network. The network self-creates a massively meshed hub-and-spoke architecture. Traffic routing and device connection handoff is handled automatically and dynamically, maintaining connectivity among nodes and UE while in motion.

ALWAYS ON

When the power is on, the network is on. Banshee nodes are rated for continuous operation. The network can be operated, administered, and maintained with no downtime.

COMPUTING AT THE EDGE

The Banshee battlefield edge network combines communication, computing, and video encoding in a single device. Banshee has an onboard Linux-based processor and storage. Banshee has an integrated, native TAK server and can be configured to host additional VMs for other applications and storage needs. Banshee brings compute resources straight to the tactical edge to support combat applications.

The Battlefield of Things®

FOR MORE INFORMATION
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