Hughes Cellular On-Demand Solutions to Connect the Disconnected
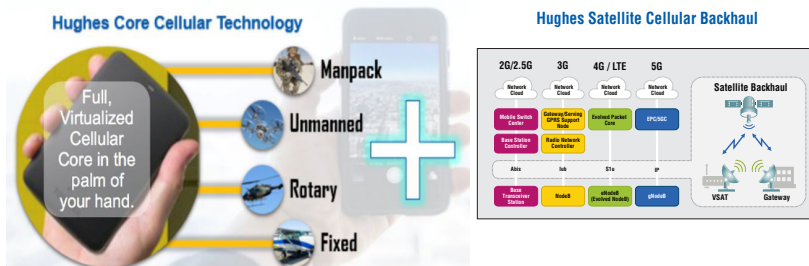

Hughes is delivering SatCell Connect, an ultra-small, completely virtualized cellular network, to support agile, tactical communications for manpacks, fixed sites, land mobile, and airborne applications around the world. This light, portable, and energy-efficient LTE network core creates a wide-radius, cellular, and Wi-Fi bubble in just minutes, keeping teams connected during time-sensitive military and disaster response missions in locations where operational infrastructure is unavailable or secure communications is required. The cellular bubble can also provide Beyond Line of Sight (BLoS) communications using high-throughput satellite communications to backhaul the mobile traffic to the network or to communications centers many miles from the operational cellular bubble. The high data rate BLoS connectivity is well-suited to enable man-to-man and manned-to-unmanned communications.

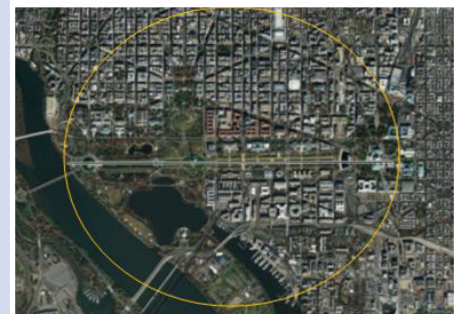## SatCell Connect Solution: flexibility for high data rate communications

The SatCell Fly-Away Kit backpack weighs under 15 lbs, or 20 lbs for the combined backpack and satellite terminal solution, and is roughly the size of a small, commercial carry-on case. This cellular solution provides seamless interoperability with most consumer cellular-enabled devices so you can bring your own device to the network. In addition, the SatCell kit can support 100 simultaneous streaming video calls, 400 simultaneous voice calls, or 800 simultaneous chat sessions with data rates up to 200 Mbps. Data Licenses and long-term logistical requirements are also supported.

Simple Turnkey Solution

Hughes Cellular Mission Applications:

- Remote Cellular Connectivity
- Commercial Operations
- Data Infil/Exfil
- UAV Cellular Operations
- Continuity of Operations
- Emergency Communications

Cellular On-Demand Solutions

Network in a Box with Compact Ku-Antenna Key Differentiators

Ultra-portable

- ■ Smallest, full featured, commercial-grade cellular network with integrated router, firewall, apps server
- ■ Satellite antenna with integrated modem included
- ■ Total kit weight less than 15 lbs

Interoperable

- ■ Seamlessly interoperable with most consumer cellular devices
- ■ Preloaded with DISA approved secure voice Sigma client
- ■ Out-of-the-box supports Android Team Awareness Kit, Apple Team Awareness Kit, Air Ground Information Systems services

Plug-and-Play

- ■ Based on open standards
- ■ Extends comms capabilities across the multi-domain landscape
- ■ Compatible with tactical mesh and line of sight radio nodes right out-of-the-box
- ■ Compatible with beyond line of sight (BLoS) airborne, maritime, and ground systems

Cutting Edge

- ■ Features and capabilities constantly enhanced
- ■ Supports Artificial Intelligence (AI)/Machine Learning (ML) applications
- ■ Upgradable as commercial cellular standards evolve (i.e., 5G)

Key Frequently Asked Questions (A complete FAQ list is available here)

- ■ **How many devices can use the SatCell Connect at the same time?**

  A single SatCell Connect unit can support up to 100 devices simultaneously. The SatCell Connect unit can store an unlimited number of pre-registered SIM cards so the network will be accessible as soon as a device is within coverage range.

- ■ **What is the range of the SatCell Connect system?**

  The SatCell Connect LTE bubble range can extend up to 1.25 miles in diameter using the two watts of output power supplied on a standard unit. Coverage area is created by two compact, external antennas attached to the standard core unit.

Technology Features

- ■ All IP-based-3GPP LTE Rel. 10, Roadmap to Rel. 12 and 13
- ■ 3GPP interfaces S1-MME, S1-u, S6a, S13, S11, S5, S10, S3/S4, and more
- ■ LTE EPC, HSS, PCRF, and IMS (VoLTE)
- ■ Full Network Management with every Core
- ■ Remote monitoring and management capability
- ■ Uses satellite or low bandwidth backhaul
- ■ Small form factor – credit card size to Intel NUC platform
- ■ Hardware independent and fully virtualized
- ■ Private dedicated network

- ■ Create your own SIM cards and encryption
- ■ Works with commercial 4G LTE phones
- ■ MME, S GW, PGW, HSS, PCRF, and fully integrated management EMS
- ■ Full suite of IMS integrated with optional virtual component
- ■ 10 to 10K users on single platform
- ■ Up to 300K on server platform
- ■ Supports Multiple eNBs
- ■ Battery powered remote system
- ■ Interoperates with major OEM eNBs-LTE radio base stations

Visit defense.hughes.com to learn more.

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