

# Unified Communications



A fully customizable private network that bridges the newest technologies with legacy equipment to create one secure network at the tactical edge.



## The Solution for Communications in a Contested Environment

Military operations without communications are impossible. IMPRES solutions are purpose-built for C5ISR challenges and can access a functioning tactical communications environment anywhere and at any time. Our seamless data and voice systems are based on commercially available IT components. This makes them easy to implement and use – even with modern devices such as smartphones. With our Guardian Communications system powered by Tactical Core, we guarantee a secure communication point by the administrator on site.

## Portable Integration Delivering C5ISR to the Edge

IMPRES Guardian Communications integrates a portable solution powered by Tactical Core. This software suite is an end-to-end encrypted private network allowing for seamless integration of state-of-the-art 4G (LTE)/5G Ready Networks and Over-The-Horizon transport and data sharing capabilities. Simultaneously it enables the integration of legacy and MANET radio transmissions on the same network. This solution will provide the user with one mesh point to control their array of communications and sensor data from unmanned vehicles, drones, and cameras. This software can be installed, on any form factor, from rapidly deployable tactical backpacks to large-scale regional private infrastructure. It realizes an abstraction layer and provides cross-sectional, essential functionalities in information security, network awareness, sensor integration, and adaptive information distribution.

## IMPRES Guardian Communications delivers:

- Fully Secured 4G (LTE)/5G Ready Network with a VoIP PBX Telephony
- Real Time Common Operational Picture (COP) Display and Tracking in Map View
- Rapid deployability in tactical environments in minutes by forward operators
- Secure MeshFlow/SDN for Self-forming, Mobile Ad-Hoc Networks (MANET)
- Fully Integrated Push to Talk (PTT) and Push to Video (PTV)
- Secure platform, high bandwidth demands (Bodycams, FMV, sensor feeds, databases)
- Reduced size, weight, and signature of operator by routing all radio traffic through EUD App

## Soldier Systems

**The Personal Body Hub (PBH)** is a palm-sized device that is worn directly on the body and consolidates all interfaces for power supply, sensors, IT, and communications equipment as well as other peripheral devices. The smart device is equipped with a hardened operating system.



**The Personal Radio Adapter (PRA)** should also be highlighted as a component of the Soldier System. It realizes the ability to continuously use legacy radios in an otherwise state-of-the-art digitized system network.





## Lightweight ManPack

<b>How many users:</b>	Recommend up to 32 users per
<b>Integrated Core Router</b>	2x2 MIMO
<b>1 W Cell</b>	up 20MHz LTE
<b>Core Rugged Power</b>	Supplies LiPO4 battery power solution
<b>Operational temperature</b>	- 20 C to +49 C (-4 F to 120.2 F)
<b>Backpack Weight</b>	4.2 kg (9.26 lbs.)
<b>Dimensions</b>	33.2 x 24.0 x 9.9 cm (13.07" x 9.45" x 3.90")
<b>Estimated Run time</b>	6-8 hours
<b>Drone Weight TacCell</b>	2 kg (4.41 lbs.)
<b>Drone Dimensions</b>	22.0 x 18.0 x 8.5 cm (8.66" x 7.08" x 3.35")
<b>Drone Estimated Run time</b>	30 Minutes
<b>Power</b>	24 vdc / 110/240 vac (Aerial platform power or dedicated batteries)
<b>Optional</b>	2nd Back Haul Modem LAN, Integrated Modem
<b>Price</b>	Based on configuration. Please contact us.



## Backpack Integration Kit

<b>How many users:</b>	Recommend 200-400 users per
<b>Integrated Core Router</b>	2x2 MIMO
<b>Integrated WiFi</b>	2.4 Ghz / 5 Ghz Modem
<b>5 W CELL</b>	up to 40MHz LTE/5G
<b>Core Rugged Power</b>	Supplies LiPO4 battery power solution
<b>Operational temperature</b>	- 20 C to +49 C (-4 F to 120.2 F)
<b>Backpack Weight</b>	25-30kg (55 lbs. - 66 lbs.)
<b>Dimensions</b>	73cm x 43 cm x 30 cm (28.74" x 16.93" x 11.81")
<b>Power</b>	24 vdc / 110/240 vac
<b>Estimated Run time</b>	6-8 hours
<b>Optional</b>	4G (LTE) / 5G modem Small cell based eNodeB with integrated Micro Core
<b>Price:</b>	Based on configuration. Please contact us.

Let's start a conversation 800-652-9686 GuardianCommunications@imprestechology.com