

CommNet

PRIVATE NETWORK FOR FIRST RESPONDERS

KEY USER BENEFITS

- ✔ Highly reliable independent network communications
- ✔ Secure and low-latency video, voice and data
- ✔ Flexible and easy deployment and operations
- ✔ High QoS for large number of end users
- ✔ Optimal size, weight and power for body-worn apps
- ✔ Cost-effective solution



REAL-TIME NEED

First responders spearhead the response to threats, catastrophes and natural disasters. That's why they require a reliable, real-time, and independent mobile communications network for data sharing and situational awareness. That's why CommNet is their solution of choice.



MULTIPLE USE CASES



Emergency Response



Large Event Security



Disaster Management



Mobile Medical Care



Mission Robotics



Command & Control Centers

COMMNET SOLUTION

CommNet is a family of cutting-edge multi-platform broadband communication and situational awareness solutions designed for real-time missions. Incorporating high-performance ruggedized software-defined radios (SDRs), **CommNet** provides reliable and low-latency video, voice and data (VVD) connectivity. **CommNet** ensures consistently high quality of service (QoS) for large numbers of users including first responder teams and multi-domain rugged platforms.

CommNet is an agile and flexible solution that easily adjusts to varying customer needs. Leveraging proprietary wireless technologies, **CommNet** employs point-to-point (PTP), point-to-multipoint (PTMP) and mesh topologies. The solution supports a wide range of radio frequencies and channel sizes while delivering high throughput over a secure private network.



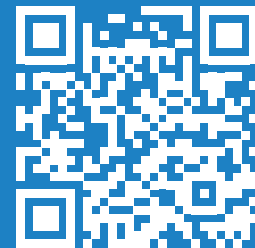
ABOUT COMMTACT

Commtact is a leading provider of mission-critical wireless communication solutions for demanding defense and homeland security applications. Since 2004, Commtact has developed and delivered innovative wireless systems for aerial, ground and naval platforms. Our expert team of hardware and software engineers tailor our systems' performance to meet the exact needs of prominent systems integrators and platform manufacturers worldwide. Commtact's field-proven systems, seasoned professionals and outstanding services enable military and first responder users to achieve maximum mission performance in any demanding environment.

COMMNET HIGHLIGHTS

- ◆ **Multi-platform**
broadband solution
- ◆ **High-performance**
software-defined radio (SDR)
- ◆ **Rugged**
body-worn components
- ◆ **Best-in-class**
proprietary wireless technology
- ◆ **Wide-ranging**
frequencies and terrains
- ◆ **Encrypted**
information transfer

FOR MORE INFORMATION
ABOUT COMMTACT & COMMNET
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COMMNET HIGH-LEVEL TECHNICAL SPECIFICATIONS

Software-Defined Radio		
	CommNet 400	CommNet 600
Radio Frequency	700 MHz, 900 MHz, 2.0-2.3 GHz, 2.3-2.7 GHz, 3.3-3.8 GHz 4.8-6.0 GHz, 5.6-6.4 GHz, 6.0-7.0 GHz, 7.0-7.8 GHz, 10.0-10.7 GHz	
Net Throughput	Up to 350 Mbps, dynamic asymmetric	Up to 1 Gbps, dynamic asymmetric
Diversity	MIMO 2x2	
Channel Size	Automatic or configurable 3.5 MHz to 50 MHz	Up to 80 MHz
Waveform	OFDM modulations BPSK, QPSK, 16QAM, 64QAM	OFDMA modulations BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Power Output	Up to 30 dBm, configurable in 1dB steps	
Access Technology	Time division duplex (TDD), time division multiple access (TDMA)	
Data Latency	1 msec typical	
Interference Handling	<ul style="list-style-type: none"> • AIS (automatic interference sensibility) • Hitless ACM (adaptive coding & modulation) • ACS (automatic channel selection) • FEC (forward error correction), k = 1/2, 2/3, 3/4, 5/6 • ARQ (automatic repeat request) 	
Encryption & Security	128-bit AES & MAC level authentication	256-bit AES & MAC level authentication
Networking & Management		
Topology	Point-to-point (PTP), point-to-multipoint (PTMP)	Mesh based on proprietary technology
Networking Features	IP-based communications LAN, VLAN, QinQ, IPv4, multicasting, 802.1p QoS, DHCP, NAT	
Traffic Shaping	Bandwidth control for uplink and downlink independently	
Management	NMS app, cloud NMS, web, built-in RF analyzer and path profiling tools	
Applications		
Scenarios	Mobile LOS and NLOS communications	
Team	Voice (PTT), real-time video and data streaming	
Mission Robotics	Real-time video and data streaming	
Environmental & Mechanical		
Ingress Protection	IP67 rated	
Operating Temperature	-32°C to +60°C (-26°F to 140°F)	
Size, Weight & Power (SWaP)	Optimized for body-worn applications	