



Mercury Scale

High Capacity Mobile GSM Communication

Mercury Scale is a compact and unique communication system designed for rugged military sites where transportation and deployment of fully fledged GSM network may not be possible. The self sustainable Mercury Scale caters to the needs of an emergency and critical situations providing capacity distribution for flexible point of presence. The highly secure system has ability to provide rapid communication in the affected zone within a short span of time. As a communication tool, the Mercury Scale is highly adaptable, scalable, robust and light weight, supporting 1000+ users in its small configuration offering the flexible capacity and coverage to fulfil the network demand.

Despite of small size the Mercury Scale communication system is a standalone network tool that supports voice, data and message connectivity within 10 kilometers radius of combat zone. Due to its compactness and ease of deployment, the Mercury Scale can also be used as a method of providing temporary wireless communication services.



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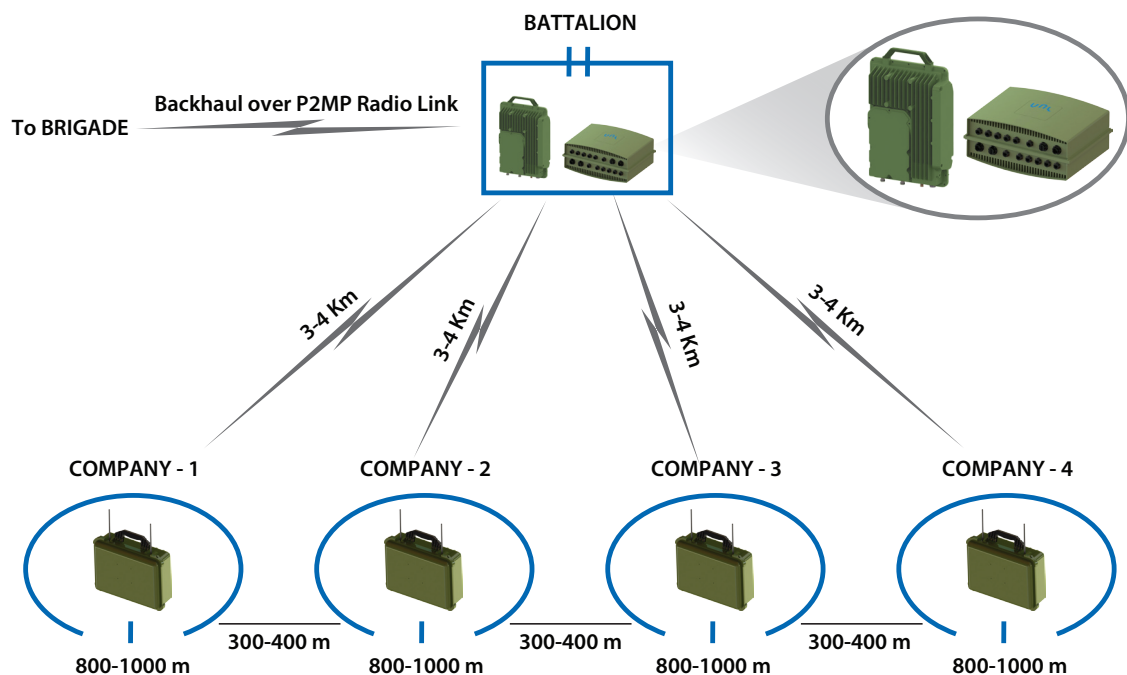
Compact GSM network

BENEFITS

- Provides voice, SMS and data communication simultaneously in isolated military locations
- Skillful to provide high application smart services in the battlefield while still being a node on the military zone
- Extremely secure technology applicable for combat zone even in emergency conditions where rapid and secure GSM communication is must
- Leverages GSM communication technology for Flexible Coverage and Capacity on demand
- A complete network solution that avails standalone system with easy transport and rapid deployment
- Scales readily to provide flexible capacity in terms of bandwidth and seamless coverage even during macro network unavailability
- Provisioned for 1000+ users
- Interception and Monitoring of Voice and Data possible

PRODUCT DIFFERENTIATOR

- Commercial GSM technology, re-designed into ruggedized, self-contained package, operates effectively in harsh weather conditions
- Wall or pole mount design supports operation in a stormcase, can also be used for in-vehicle operation with a tactical radio interface mount
- Custom SIM cards for smart devices ensure the highest level of information assurance through mutual authentication
- Special Military band operation with compatible handsets, available on demand
- Flexible IP network connects with a variety of tactical backhaul options
- PSTN connectivity over ISUP
- Integrated GSM Switch with IP Radio/VSAT backhaul option
- 6-TRX BTS configuration possible
- Up to 10 Km range possible



SPECIFICATIONS

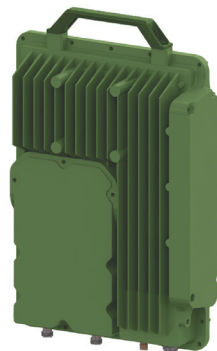
ACCESS FEATURES	
Air Interface	GSM 3GPP Release 5
Frequency Band	GSM 850/900/1800/1900 MHz Customised Band: 600/1400 MHz
Output Power	45 dBm Channel (min)
Carrier	Up to Six Carrier
Power	Power Supply: 24 V, Power Consumption: < 100 W
Connectivity	Ethernet (10/100 Mbps)
Services	Voice, SMS, Data, CSD, GPRS, EGPRS
Capacity	90 Simultaneous Voice Calls
GSM Switch	MSC/BSC/HLR/AuC/EiR/SMSC/SGSN Functionality

BACKHAUL FEATURES	
Frequency Range	ISM Band: 2.4 GHz/5.8 GHz Defense Band: 1.3 – 1.7 GHz/4.4 – 5.0 GHz
Data Rate	25/50/100 Mbps (Full-Duplex)
Encryption	AES - 128/256
RF Output (dBm)	23 dbm (Configurable)

PHYSICAL CHARACTERISTICS	
RF	Two N-type for TX and RX ; GPS-TNC
USB	One USB 2.0
Ethernet/E1	Five RJ45/One E1
Battery Types	BA-5590/U, BA-5390/U, BB-590/U, BB-390/U, BB-2590/U
Size MC BTS/GSM Switch (H x W x D in mm) Approx	120 x 325 x 450/170 x 400 x 300
Weight MC BTS/GSM Switch (Kg) Approx	12.5/15
Water & Dust Protection	IP65
Operating Temperature	-30° to 55° C (-22° to 131° F)



Ruggedized handset



Mercury Scale: 6 TRX MC BTS and GSM Switch

ABOUT VNL

VNL makes the award-winning WorldGSM™ system, the sustainable turnkey GSM and Broadband solution specifically made for remote locations. It also makes a range of Privately Owned and Managed GSM & Broadband Network solutions for specialized applications such as secure communications platform for tactical operations such as defense and homeland security, communications for remote industrial centers and rapidly deployable networks for disaster and emergency situations.

VNL's pioneering work has been widely praised: during Mobile World Congress 2010 in Barcelona, VNL was the recipient of GSMA's 2010 "Green Mobile - Best Green Programme Product or Initiative" Award. VNL was also named as a Technology Pioneer 2010 by The World Economic Forum. In addition, VNL was named the third most innovative company - and the most innovative telecoms company - in the world in the Wall Street Journal's annual Technology Innovation Awards in 2009.



CORPORATE HEADQUARTERS

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