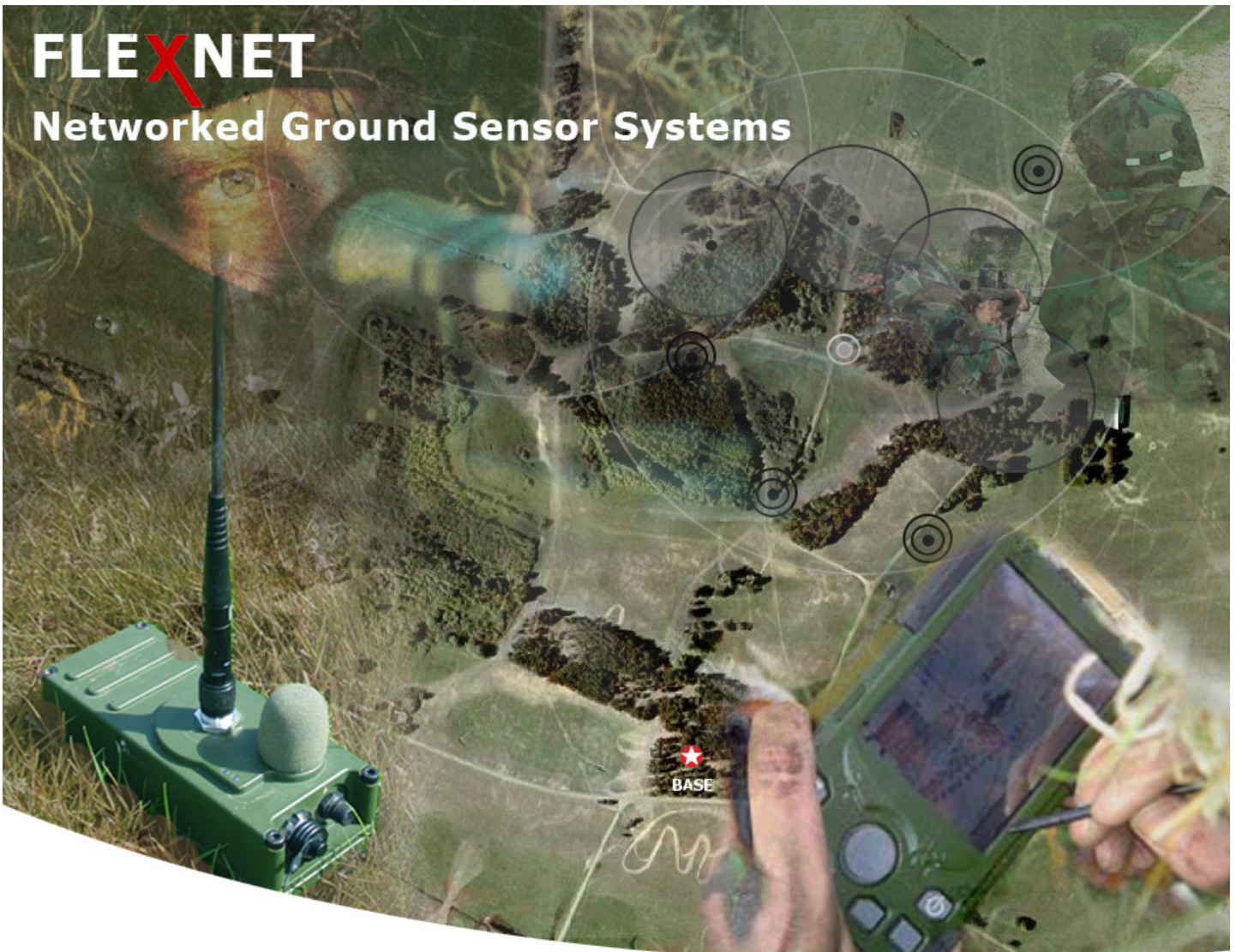


FLEXNET

Networked Ground Sensor Systems



NETWORKED GROUND SENSOR SYSTEM

FLEXNET OFFERS:

- Advanced warning of approach far greater than guard force limit of sight & sound
- Smaller guard force deployed – free up time for rest & other taskings
- Multiple Non Line Of Sight (NLOS) areas & ‘Dead ground’ monitoring
- Quick & easy 360° protection – sensors deployed during clearance patrol

The **FLEXNET** system is a Force protection and surveillance multiplier based upon a Miniaturized Networked Remote Ground Sensor Platform for Area Control developed by Exensor Technology.

By fusing seismic, acoustic, passive infrared and camera technologies, the system is capable of detecting, classifying and identifying personnel and vehicles with extremely high accuracy while filtering out unwanted alarms.

EXENSOR
Awareness Assured

FLEXNET - Networked Ground Sensor System

EASY TO USE AND DEPLOY






The system offers a light weight and a small footprint for easy transportation and concealment. As such, FLEXNET can be quickly deployed and maintained while taking performance and reliability to levels never achieved before. Small or large areas can be easily covered and protected from unwanted intrusion thanks to a network of up to 250 sensors.

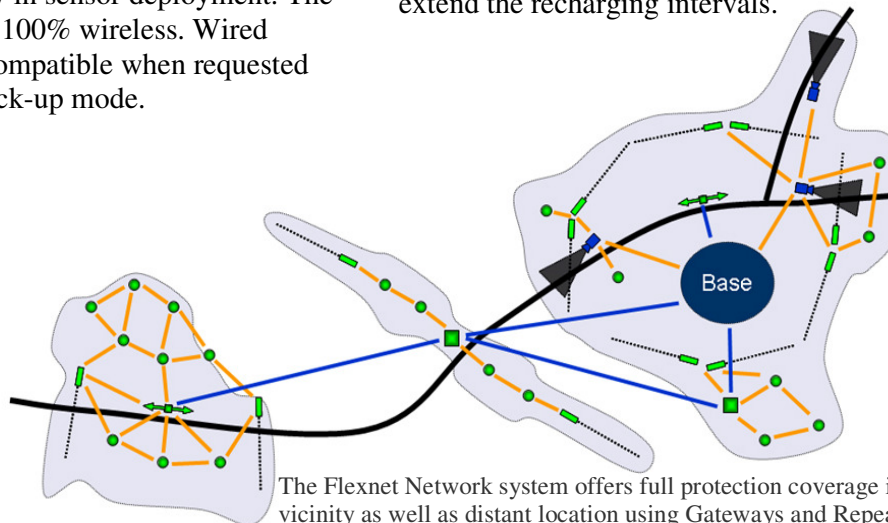
FLEXIBILITY

Due to its modular architecture, FLEXNET can be used as a standalone system with its own integrated C2 or become a subsystem of a larger capability. The platform offers a toolbox which allows the user to create seamless combinations of sensors types and quantities as well as C2 solutions. Even battery and radio components are flexible and modular to allow introduction of legacy or specific solutions when required.

MESH NETWORK TECHNOLOGY

FLEXNET is communicating through a low data rate self-healing mesh network integrating dedicated gateways and repeaters. Each individual item whether sensor, gateway or repeater is acting as a radio node and is communicating with all the other nodes using ad-hoc networking techniques to route intrusion data and still pictures all the way back to the C2 base. In addition to range extension, the self-healing capability provides improved communication reliability as well as increased flexibility in sensor deployment. The system is therefore 100% wireless. Wired solutions are still compatible when requested and to support a back-up mode.

-  - UMRA 1G
-  - UMRA Mini
-  - Camera
-  - PIR
-  - Gateway



The Flexnet Network system offers full protection coverage in close vicinity as well as distant location using Gateways and Repeaters.

SENSOR PORTFOLIO

The mature and proven sensor portfolio consist of the UMRA Mini seismic/acoustic sensor for 360 degree detection and classification of personnel and vehicles, PIR's for detection of moving threats and Scout Cameras for detection and identification of intrusions. Each sensor includes an integrated battery and radio solution to submit data through the network back to the C2. Each sensor can be fitted with an internal GPS to automatically find their individual position and report it back to the C2.

Due to the flexible design the system can be easily extended with further sensor types and capabilities such as the Exensor UMRA 1G identification sensor, radars, magnetic sensors and UAV's to create a full system of systems solution.



UMRA mini

Scout Camera

PIR Detectors

BATTERY SOLUTIONS

Each sensor node includes state of the art rechargeable Lithium-ion batteries that will last for up to 30days dependant upon usage and environment. Additional external batteries can be connected to each sensor to even further extend the recharging intervals.

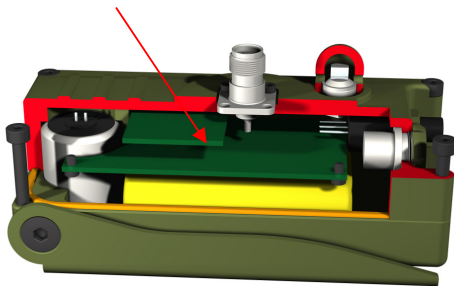
FLEXNET - Networked Ground Sensor System

RADIO AND COMMUNICATION RANGE

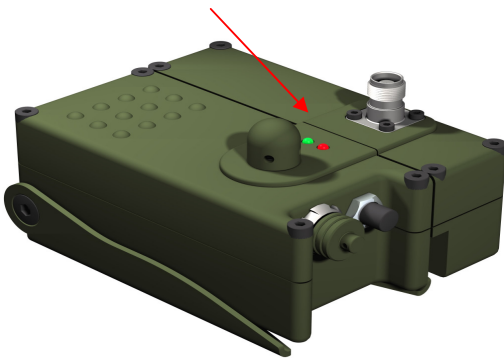
Individual sensor radio communication ranges are point to point (sensor to sensor) 1km LOS, operating over the 800Mhz frequency bandwidth. If greater communication ranges are desired a sensor communication gateway is available offering the operational capability of up to 15 km LOS (Line of Sight) radio transmission back to the C2. Several Gateways can be introduced to further increase the range.

The radio-sensor interface is also flexible to allow exchange with radio module operating at other frequencies if and when required.

Internal radio module in UMRA Mini



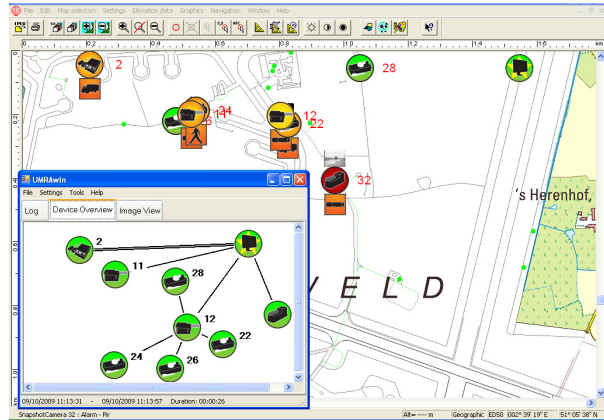
External radio module for UMRA Mini



MAP-BASED USER INTERFACE / C2

Exensor provides a C2 solution based upon UMRAwin C2 interface. The User is able to interact with a map based GUI, working from either a laptop or a small PDA device. Sensors fitted with an internal GPS determine their individual location while a visible indication of their position is automatically reported on the map based GUI.

This enables both rapid deployment & the ability to quickly & easily retrieve the sensors. Typically, alarms are displayed through graphical colour schemes and interactive symbols with overlaid text log when required. The graphical representation provides for a quick relevant operational picture of the intrusion environment.



Map Based GUI at C2 level consolidating all sensor data in one single view. A simple click on a given sensor gives access to additional information.



PDA solution used as C2

The API software module developed by Exensor allows our system to communicate with other C2 software. This module uses defined protocols to send and receive predefined messages to/from other C2 software. When FLEXNET is used with other systems and one common C2 is required the Exensor API module will be installed in the larger C2 software. The protocols and messages that can be sent or received will match a detailed interface protocol to ensure that full compatibility between Exensor system and external C2 is achieved.



Exensor Technology AB

S:t Lars Park, S:t Lars väg 41, 22270 Lund, Sweden
Tel: +46 46 540 80 10, Fax: +46 46 12 31 35,
Email: info@exensor.se, Web: www.exensor.se



Arkonia System Limited, An Exensor Group Company

Signal House, 35 Woolmer Way, Bordon, Hampshire
GU35 9QE, England
Tel: +44 (0) 1420 488 646, Fax: +44 (0) 1420 477 845,
Email: commercial@arkonia.co.uk