



SELF PROTECTION

Flexnet - Wireless mesh networked Unattended Ground Sensors (UGS) platform

/ CONTEXT

When just a few soldiers are out on a specific mission, they need to maximize their attention on its realization and spend a minimum of effort covering their back. Exensor's Flexnet scalable networked solution provides "extra ears and eyes", allowing early warning threat detection and thus early decision to take necessary actions.

/ SURVEILLANCE MATERIAL

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• 1 Ruggedized PDA for command & control
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• 1-4 UMRA MINI, seismic & acoustic sensors for threat detection and classification
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• 1-2 SCOUT cameras, Intelligent remote camera triggered by sensors. A variety of thermal & daylight camera lenses are available
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• 1-3 Passive Infrared Sensors (PIR) to detect the direction of travel

/ SOLUTION

Depending on the terrain, an adapted network of sensors can be deployed for early warning.

Exensor's intelligent sensors can ensure:

- Threat detection using the **UMRA Mini seismic & acoustics** capabilities. These sensors will detect and classify any threat such as a vehicle, a person or a group of persons.
- The **PIR sensors** will determine any movement and provide the direction of travel. This sensor can be configured with short, medium or long range depending on the terrain.
- The **scout camera** is automatically alerted by the other sensors to take pictures of the threat using intelligent motion detection.
- All data are collected through gateway or directly by the PDA to obtain a real time visualization of the scene.



/ KEY BENEFITS

- ✓ Protection covering NLOS* and dead ground, out of ears and eyes range
- ✓ Mobile system adapted for soldier protection
- ✓ Easy to deploy, use and recover

/ CONCLUSION

The Exensor's Flexnet platform allows for quick deployment of a portable and wireless mesh network of Unattended Ground Sensors to perform area surveillance and early threat detection. For two soldiers, the system acts as a backup team, allowing them to focus on their tasks. The Flexnet intelligent sensors perform advanced alarm classification and recognition to early obtain relevant information and take necessary actions. Moreover these lightweight and compact sensors can be carried directly on the soldiers' backpack.