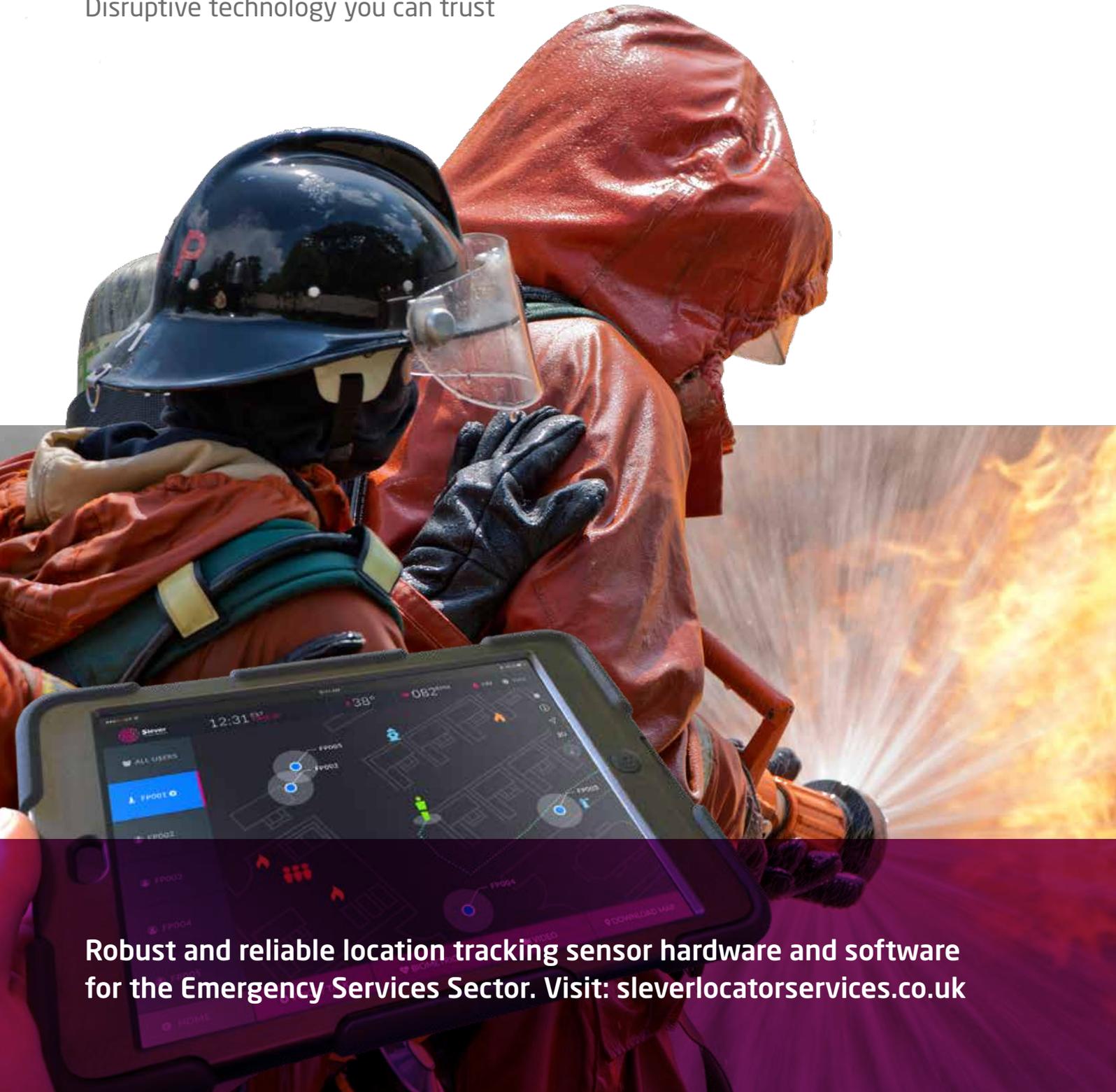


Emergency Services Locate (ESL)

Disruptive technology you can trust



Robust and reliable location tracking sensor hardware and software for the Emergency Services Sector. Visit: sleeverlocatorservices.co.uk

Emergency Services Locate (ESL)

Disruptive technology you can trust



Technology that
you and your
team can rely on.

When your team
go in, we have
their back.

When others rely on you and your team to be safe first, ESL sensor hardware and software knows your location, displayed in a feature rich intuitive software application.

The majority of internal tracking vendors use and rely on a combination of sensors and wireless technology fusion. Our product and technology for indoor location tracking, as an individual or a team, relies on field tested wearable sensors without having to rely on any external infrastructure or signals. This benefits scenarios where radio signals from GPS, Wi-Fi, iBeacons or other sources are not pervasive. Founded in 2017, our world-class R&D team and marketing experts have worked tirelessly to bring Emergency Services Locate (ESL) to the forefront of the Emergency Services Sector.

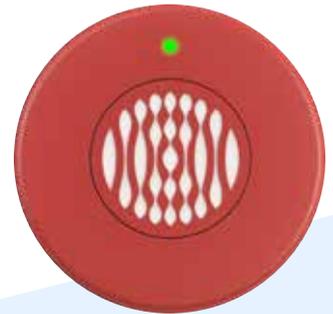
Our ambition for the ESL product has been and continues to be robust, reliable and accurate location tracking in an indoor environment.



A wearable sensor



Software application



Network nodes



The product consists of:

- 1) A **wearable sensor**
- 2) A feature rich, intuitive **software application**
- 3) Low cost disposal **network nodes** that are dispersed by hand to create an autonomous wireless mesh benefiting the transit of location data to commanders on the ground.

ESL is particularly useful in a complex building environment, where it is beneficiary for firefighters and other emergency services to know exactly where they are. Because GPS will not work indoors and other radio based means such as triangulation or proximity radio are either unreliable or lack accuracy, having a means that is captive to the individual, will work in any environment and does not rely on external signals is extremely useful. ESL addresses this need, importantly because of the nature of sensors and algorithms used it is extremely accurate and reliable in determining location.

A facet of the [ESL solution](#) is the ability to transmit voice, video and biometrics data over the low-cost mesh network deployed. This provides an additional benefit to location tracking to offer extreme reliability for real time voice and video services between firefighters or with commanders on the ground.

In a typical scenario, emergency services are called to a complex, large building fire. Each Firefighter is equipped with an ESL wearable sensor. Before entry to the building the feature rich and intuitive ESL software application downloads a building plan. Immediately the ESL sensors can start tracking location and will accurately display this on the ESL software application.

Due to low light, smoke and other visibility issues the firefighter becomes disorientated in the building. Using the ESL software application front line personnel can quickly ascertain their own location and either continue to effectively fight the fire or egress the building.

Usefully the ESL sensor and software application can be meshed with other firefighters to provide an everyone seeing everyone location tracking mode giving confidence to firefighters that they know their colleague's location or can plan a least cost route to aid them. Importantly this mode also allows the supervisor external to the building to know the location of each of his firefighters and record the data for future evaluation, training or legal purposes.

ESL records data, in the context of actual emergency services events, analyses movement, habits, motives, and what training led to those decisions. We then internalise and synthesise all of this information to continuously improve upon our own product and your training needs.

We have, and will continue to work relentlessly to become the technological indoor location tracking standard, providing accuracy, reliability and big picture data insights which emergency service leaders and staff on the ground not only approve of, but depend on as well.

Technology

ESL consists of three main components



A WEARABLE SENSOR

A personal indoor location sensor providing highly accurate, robust and reliable tracking data. This can be built into clothing or carried in ancillary equipment.



MESH NETWORK

This transfers tracking and other data between personnel and commanders on the ground external to the building. It is small form factor, highly resilient, reliable, autonomous and very low cost making it disposable if required



SOFTWARE APPLICATION

Typically the commander on the ground will use the feature rich and intuitive software provided to display not only tracking data but also high quality, voice, video and biometrics

ALL COMPONENTS ARE BUILT TO THE HIGHEST LEVEL OF RELIABILITY AND ROBUSTNESS, COMMENSURATE WITH THE EXTREME EMERGENCY SERVICES ENVIRONMENTS THEY MAY BE OPERATING WITHIN.

ESL wearable sensor

The proprietary ESL sensor is small form factor hardware that can either be built into clothing or worn on ancillary equipment.

It will provide an unobtrusive, robust long life means to provide extremely accurate tracking data that can be consumed either by colleagues or a commander external to building by using the ESL software application.

- Highly accurate in-building tracking.
- Dedicated proprietary hardware.
- Small form factor.
- Long battery life.
- 3 axis gyroscope, magnetometer and accelerometer MEM's.
- On board processing for normalisation of data.
- A future proof architecture allowing easy integration of biometric, voice and video data.
- Built into clothing or easily attached to ancillary equipment.



A personal indoor location sensor providing highly accurate, robust and reliable tracking data.

This can be built into clothing or carried in ancillary equipment.

ESL mesh network

When personnel enter a complex building environment they will be issued with a number of small hand sized, disc shaped network nodes.

These can be randomly dropped as progress is made through the building. Without intervention, the nodes will automatically connect with each other and the commander external to the building. This creates a reliable and autonomous network where sensor tracking and other data can be shared in an any-any fashion with the ESL software application.

The low cost of nodes means they can be if required a completely disposable solution and do not have to be recovered.

- Low cost, disposable network.
- Automatic any-any mesh.
- Small form factor nodes.
- Long range to 250 m.
- Low power, long life.
- Highly resilient.



ESL software application

The ESL software application presents a feature rich and intuitive interface that consumes data from the ESL wearable sensors via the ESL mesh network.

Typically, the commander external to the building will utilise the application so as to monitor personnel, though it can be used by all personnel if required. Location and tracking data is overlaid on a building floorplan than can be either downloaded or manually input.

The software can run on any device or operating system but it is envisaged to normally function on a ruggedised tablet. An added benefit of the architecture is that it is not limited to tracking data but can be evolved to support biometrics, voice and video comms as well as other sensor data.

- Building floorplan downloads from a Building Management System or manual input.

- Location and historical tracking data for single or multiple personnel.
- Data recording for future analytics, training, legal and regulatory purposes.
- Patent pending algorithms to improve accuracy of received sensor data.
- A future proof architecture allowing easy integration of biometric, voice and video data.
- Situation awareness drag and drop features for fires, hydrants and other relevant points of interest.
- Configurable alarms for firefighter biometrics and other relevant triggers.

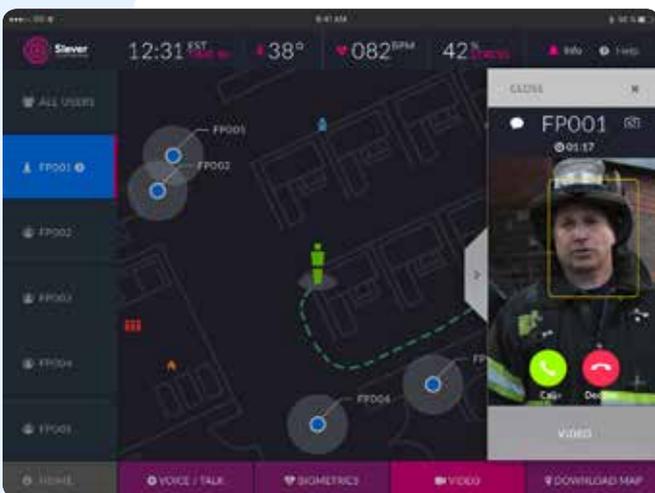
Tracking



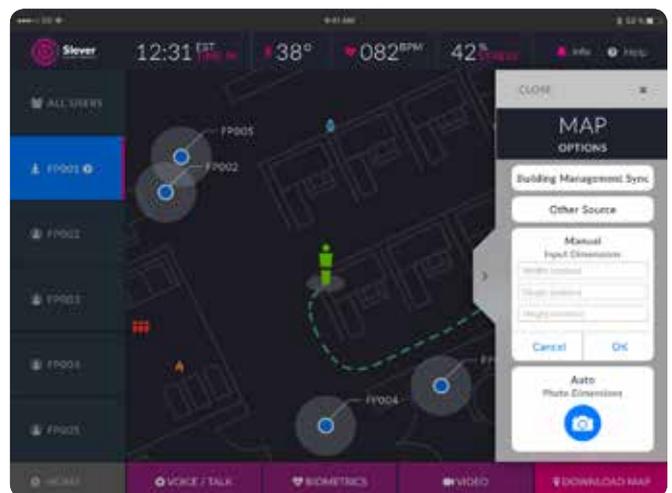
Biometrics



Video



Download Map



Expression of interest

Currently Slever is in discussion with customers for orders specific to the Emergency Services Locate product.



Robust and reliable location tracking sensor hardware and software for the Emergency Services Sector.

We are also receptive to tailored requests from other sectors in terms of our sensor locators, mesh networks and software applications that may be compatible with other user requirements.

If you would like to make a formal expression of interest for ESL in context of the Emergency Services or other applicable sectors please do not hesitate to contact us.

Email: info@sleverlocatorservices.co.uk or visit: www.sleverlocatorservices.co.uk

