SALUS

AN **ASTUTE** SOLUTION

WHAT SALUS CAN DO FOR YOU

- Ensure safety compliance

- Reduce management costs

- Increase operational efficiency

MEASURABLE EFFICIENCY

- Reports location, status & condition

- Location reporting of assets <2m

- Track Indoors & outdoors

No more lost, damaged or uncalibrated equipment

Introducing SALUS, a serviceable asset location and utilisation system.

Accurately track people, tools, and equipment, both indoors and outdoors on the same network.

Customisable for multiple sectors including:

- Medical

- Rail

- Aerospace & Defence

SALUS operates exclusively with **Semtech's LoRa 2.4GHz** Technology.
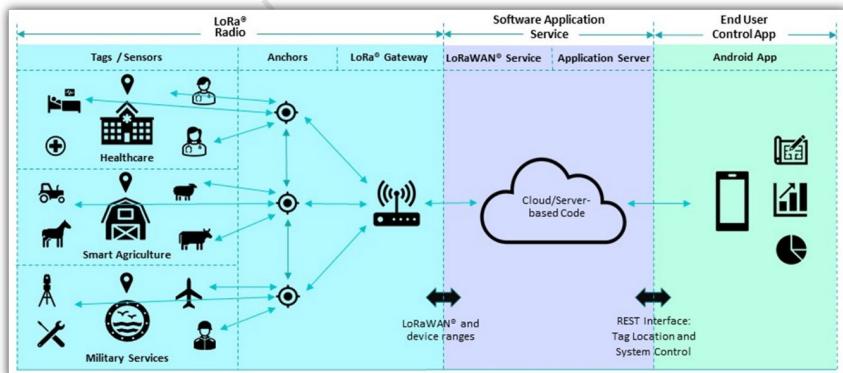
SEMTECH

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HOW DOES IT WORK?

The system monitors the position of tags in a radio network defined by fixed anchors. The radio network is bridged to wider cloud-based services for data storage and processing. A well-defined JSON API provides access to location-data via a mobile app.

There are 3 Functional hardware elements

1. Tag   2. Anchor   3. Gateway

THE TAGS   **1.**

The tags are the devices being tracked. Depending on the use case, being indoor, outdoor, nature of tracked item and the level of IoT functionality required, these form the customised element of any solution.

> Alternative tag designs can be built into a wearable form-factor to suit other applications. The electronics are powered by a small battery. There are designs using replaceable or rechargeable batteries with between 1- and 3-years operational life.

THE ANCHORS   **2.**

Anchors define the area in which tags can be located. They are housed in weatherproof boxes for outdoor use, or a discrete box suitable for wall mounting indoors. These can also be powered by solar energy, or suitably sized primary cell or rechargeable batteries, and can also facilitate power over ethernet charging.

> Removing the need for mains powering, means low-cost installation and no additional connections are required,

Anchors are placed strategically around the inside of the building and external areas to cover the full tracking area, and their position is clearly indicated in the supporting mobile app.

GATEWAYS   **3.**

A gateway bridges the radio network to wider network-based services via a wired or wireless network connection. Application services running in the cloud provide an interface to user-facing apps like this one running on a mobile device. Any solution can accommodate client requirements for network security and location of servers.

When each tag moves through the radio network, its distance to each anchor is measured. By triangulating measurements from 3 anchors, it is possible to determine the tag location in space.
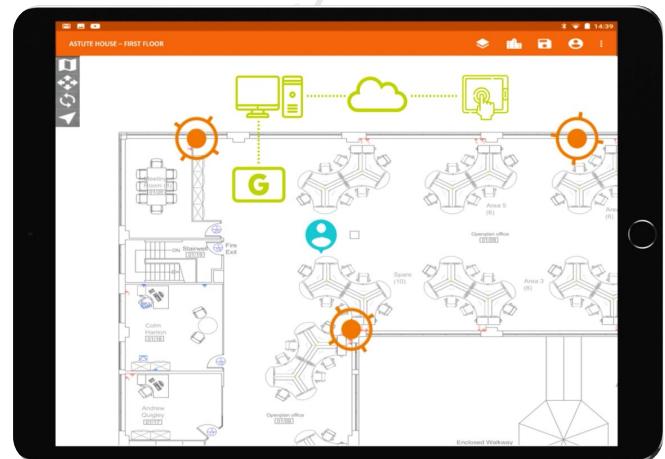
> The app takes the tag positions and plots them on-screen to make tracking individual items easy. Position is reported as longitude, latitude and altitude, so it is possible to plot tags on a global satellite view, or on a plan view of the area in question. Multiple sites can be called from a single app, and multiple buildings traced within a site, each across multiple floors.

The app displays current position, or a history of prior locations, each called up at the touch of a button.

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