



SMART PERSONNEL & ASSET TRACKER



Smart Personnel and Asset Tracker

The Smart Personnel and Asset Tracker (PAT) is a real-time location tracking system that locates via GPS and Wi-Fi/Bluetooth Low Energy (BLE) beacons. PAT uses BLE mesh networking to connect every tracker to a central command.

Mesh networking enables peer-to-peer connectivity and communication with any number of mesh-capable tracker devices. By way of relaying, a mesh network's range can grow and extend beyond that of single device's if every device in the network is within broadcast range of at least one other device. This form of connectivity makes the system independent of cellular network availability and is free from the costs related to it.

PAT tracker comes in two form factors: tag and wrist-worn smartwatch. It is equipped with Emergency Assistant to relay call for help through an SOS button (conscious activation) and man-down detection (unconscious activation); where cellular or Wi-Fi signals are within range 2-way voice calls can be made.



Key Features

- Location by GPS (outdoor) and Wi-Fi/BLE (beacons)
- Communicate and connect by 3G/4G, Wi-Fi, BLE mesh
- Ruggedised (shock, dust, water resistant)
- High power endurance with smart power management
- Emergency Assistant: SOS button, man-down detection, 2-way VoIP comms
- Out-of-range activated buzzer
- External extended battery
- Temperature -20 °C to 50 °C (-4 °F to 122 °F)
- Instant Message for smartwatch model
- Optional anti-tamper features for smartwatch model



Operational Uses

Target Users	Scenarios
Police / military personnel	Real-time overview of personnel deployed locations from mobile command post and allow dynamic deployment of officers who are closest to an incident, or deploy rescue or additional support when threat to officers are detected through Emergency Assistant feature: SOS button (conscious activation) or lying down position detected (unconscious activation).
People on outdoor excursion	Helping guides keep track and account for people in outdoor excursions. Using mesh network every tracker is connected to and tracked by the guide in environments that do not have access to cellular signal. When a tracker leaves the pre-set circumference, an alert with the ID of the tracker is raised to the guide and an audible alarm is automatically triggered on the strayed tracker to assist the guide to locate it.
Workers in hazardous environment / prison wardens	Real-time account of all personnel and their locations are tracked using pre-installed meshenabled beacons. In case of an incident Emergency Assistant feature and 2-way voice-over-IP (VoIP) help to deploy and guide rescue to incident location.
Construction / production workers / visitors to a plant	Real-time account of all personnel and their locations are tracked using pre-installed meshenabled beacons to ensure movement outside defined authorized areas are detected.