GUARDIAN

Workforce Safety and Collaboration solution
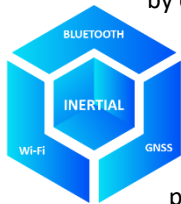*Powered by Hyper Location*

Guardian provides field operators in high-stress and hazardous environments with comprehensive tools to execute their work safely and efficiently. Guardian deploys on a wide range of mobile smart devices and integrates with its intelligence platform to transform data from the field into actionable information.

Real-time Hyper Location

We spend 80% of our time in GPS-denied environments. Guardian ensures seamless outdoor and indoor positioning through its Hyper Location engine. This engine is executed on the edge in smartphones or in the cloud.

Location Fusion- Guardian fuses positioning information from GNSS, Bluetooth, and Wi-Fi hotspots. Guardian calculates the best-fit position fix by combining these sources with previously known positions.

Inertial Positioning – Guardian's unique AI engine relies on the device's inertial sensors to position people in the most demanding environments, even when GNSS or other infrastructures are very limited. This capability reduces the need for beacons by a factor of 3 to 10, depending on the case.

Tracker Plugins – Customers can add 3rd party trackers to capture their location updates and alerts. Supported trackers include Teltonika, Minifinder and Twig (2022 Q3).

The survival rate of injured staff decreases by 10% for every 15-minute loss in response time

Guardian Safety

People's personal safety in the field is ensured through a broad range of features.

Automated Alerting

Alerting – Users can activate alerts by pressing either a hardware or software button on the mobile device. This results in a loud alarm and an alert message to the Supervisors sent over Edge, 2/3/4/5G or Wi-Fi.

Man down & Fall detection - **Guardian'**s advanced algorithms provide multi-layered protection in determining user status without interfering with the ongoing work. In addition, alerts can be paused for a set time.

4D Geofences – Guardian supports a multitude of 3D spatial and temporal geofences. These enable to set entry/exit alerts and maximum occupancy alerts.

Alerting Workflows - Guardian incorporates a range of advanced safety rules such as Missed ETA, Max. Time in a Zone, Proximity and Max. Distance, Out-of-date Position, Device Status Alerts. Operators can activate an Amber alert to notify the Supervisor when a check-in is missed, even when the device is out of range.
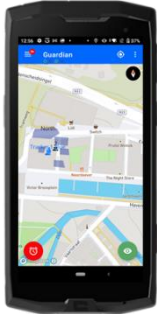
Alerting Response

Listen-in and voice – In case of an emergency, the Operator or the Supervisor can activate Silent Listening-in of the device. Devices can be called directly for bi-directional communications. Push-to-talk can be included through the OEM partners.

Alert notifications – When alerts occur, Supervisors are notified visually and by sound in the Web app. Supervisors can trigger sound alerts on a particular device to assist search efforts. Field Supervisors using the Guardian mobile app get notified by sound, which continues until the notification is acknowledged. Field Supervisors can directly call the alerting device and look at the mobile map where the alert took place.

Security Operations Center – Organisations that need 24/7 alert monitoring can rely on the Guardian solution being seamlessly connected to OEM partners offering SOCs.

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Guardian Connect

The Connected Worker relies on Guardian Connect for its safety features and access to the latest relevant information in the field no matter the environment.
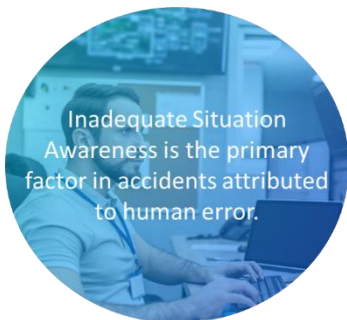
Personal Situational Awareness – Guardian offers field operators a fully integrated map depicting their positions and locations of team members. Overlays include geofences, maps, ongoing alerts, and building blueprints.

Secure Instant Messaging - Communicate in real-time via encrypted text message and share geo-referenced operational icons. In addition, attachments such as images, video, and documents can be added.

Real-time Geo-Whiteboarding – Team members use the Guardian device App and the Web App to collaborate and share annotations on the map. Dedicated icons can be configured per customer. In addition, the location of pictures taken in the field appears on the map to ensure a common understanding.

Sensor Connections – Sensor carried by the workers, e.g. gas sensors, can feed their data into Guardian to create a holistic operational and alerting picture.

Inadequate Situation Awareness is the primary factor in accidents attributed to human error.

Supervisor

The Guardian device app and the web app offer feature-rich capabilities to enable effective Collaborative Operations Management.
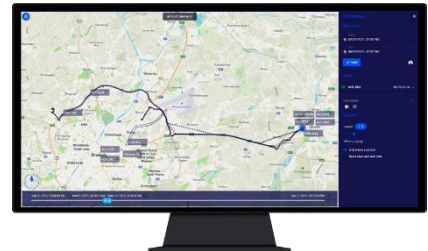
Visual Communication –Supervisors monitoring ongoing operations dispose of a range of intuitive tools and dashboards. They can participate in secure messaging and geo-white boarding from their desk. In addition, supervisors can define Operational projects that group all information and assets.

Situational Awareness Display – Time-sensitive 2D / 3D depiction of operational data, sensor feeds, maps, blueprint, imagery. The embedded time view shows the sequence of events, sensor measurements, alerts, etc.

Search – Users can look up staff and asset locations based on keywords, geospatial bound, and time. Guardian facilitates in-person searches, alerts have location accuracy ranges and shared Search and Rescue map grids can be created.

Playback dashboard – Supervisors can go back in time to replay previously collected & recorded data. This function facilitates search and rescue, lessons learned, and post-action reviews.

Site Manager

Operational Twins are built with the site management capability. It lets our customers configure the Guardian platform to match their operational environment and integrate diverse data sources.

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Rapid Building Modelling – Users can easily create multi-floor building models with a couple of clicks. The building wizard enables to integrate and fine-tune floor plan layouts. Supported formats include PNG and JPEG. This tool can also rapidly integrate any geo-referenced image such as outdoor event plans, evacuation plans, weather maps, hand-drawn plans, etc.

IoT Sensor Plugins – Additional sensor feeds can be plugged into the solution to increase the integration with a site's smart infrastructure.

Secured Fielding

ATEX – Guardian is fully compatible with off-the-shelf ATEX smart devices for safe deployments in High-Risk environments.

Access Control- Guardian guarantees the safety of customer data and precise control of privacy settings.

Kiosk – Guardian optionally configures to be the only APP accessible by users. In case of loss, the device can be remotely erased.

Real-time service and database

The Guardian platform can provide positions, alerts, and IoT data to 3rd party systems. Data includes information captured by the Guardian App.

Data streaming – Real-time location streams are available as MQTT messages. Customer-specific feeds can be plugged into the outbound stream (NMEA, XML, JSON)

API –Guardian publishes a REST API for ease of integration with 3rd party systems.

Guardian 5.0			
Features	**Profiles**		
	Safety	**Connect**	**Supervisor**
Hyper Location			
Best-Fit Positioning Fusion	✓	✓	
Inertial AI Positioning	✓	✓	
GNSS Positioning	✓	✓	
BLE Positioning	✓	✓	
WiFi Positioning	✓	✓	
GNSS Anti-Spoofing	✓	✓	
Edge Computing	✓	✓	
Automated Alerting			
Fall detection	✓	✓	
Idle detection	✓	✓	
Amber alert	✓	✓	
Alert Buttons	✓	✓	
Alert Pause Timer	✓	✓	
3D Geofences (entry/exit & max people count)	✓	✓	
Missed ETA Alert	✓	✓	
Max. Time in a Zone Alert	✓	✓	
Proximity and Max. Distance Alert	✓	✓	
Out-of-date Position Alert	✓	✓	
Device Sound and Vibration Alerts	✓	✓	
Device Status Alerts (connection & battery)	✓	✓	
Hands-free Automated Silent Listen-in	✓	✓	
Device Alert Remote Trigger (*)	✓	✓	✓
Collaborative Operations Management			
Lone Worker Protection	✓	✓	✓
Team Collaboration		✓	✓
Assets and Alerts Live Dashboard		✓	✓
Alert Notifications and Actions		✓	✓
Alert Location Accuracy Range	✓	✓	✓
Real-Time Map-centric Command Center		✓	✓
Operational Information Management		✓	✓
Photo Augmented Field Reports		✓	✓
Secure Instant Messaging and Media sharing		✓	✓
Collaborative Real-time Geo-Whiteboard		✓	✓
Domain-specific chat and map Icons		✓	✓
Shared Search and Rescue Map Grids		✓	✓
Historical Data Playback Dashboard		✓	✓
One year data storage included (**)		✓	✓
Devices Status Overview	✓	✓	✓
Device Silent Listen-in (*)	✓	✓	✓
Device Call-in	✓	✓	✓
Push-To-Talk (PTT) (***)	✓	✓	✓
Security Operations Center (SOC)(***)	✓	✓	✓
Advanced Privacy Control	✓	✓	✓
Information Security & Encryption	✓	✓	✓
Operational Twin			
Multi-layered Maps		✓	✓
3D Building floorplans		✓	✓
Rapid Building Modeling		✓	✓
Web Map and Weather Layers integration		✓	✓
IoT Integration		✓	✓
Fielding			
Smartphone	✓	✓	
ATEX Smartphone	✓	✓	
Epic Blue Lyte Tracker	✓		
Teltonika Tracker	✓		
Minifinder Tracker	✓		
Twig Tracker	✓		
Web browser			✓
Integration			
Live Streaming API	✓	✓	✓
REST API	✓	✓	✓
Localisation background APP	✓	✓	✓
Support			
Email Support	✓	✓	✓
How-To Guides with Videos	✓	✓	✓
Onboarding & Account Set Up	✓	✓	✓

(*) On Smartphone (**) Extensible to any number of years

(***) Through OEM partners

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