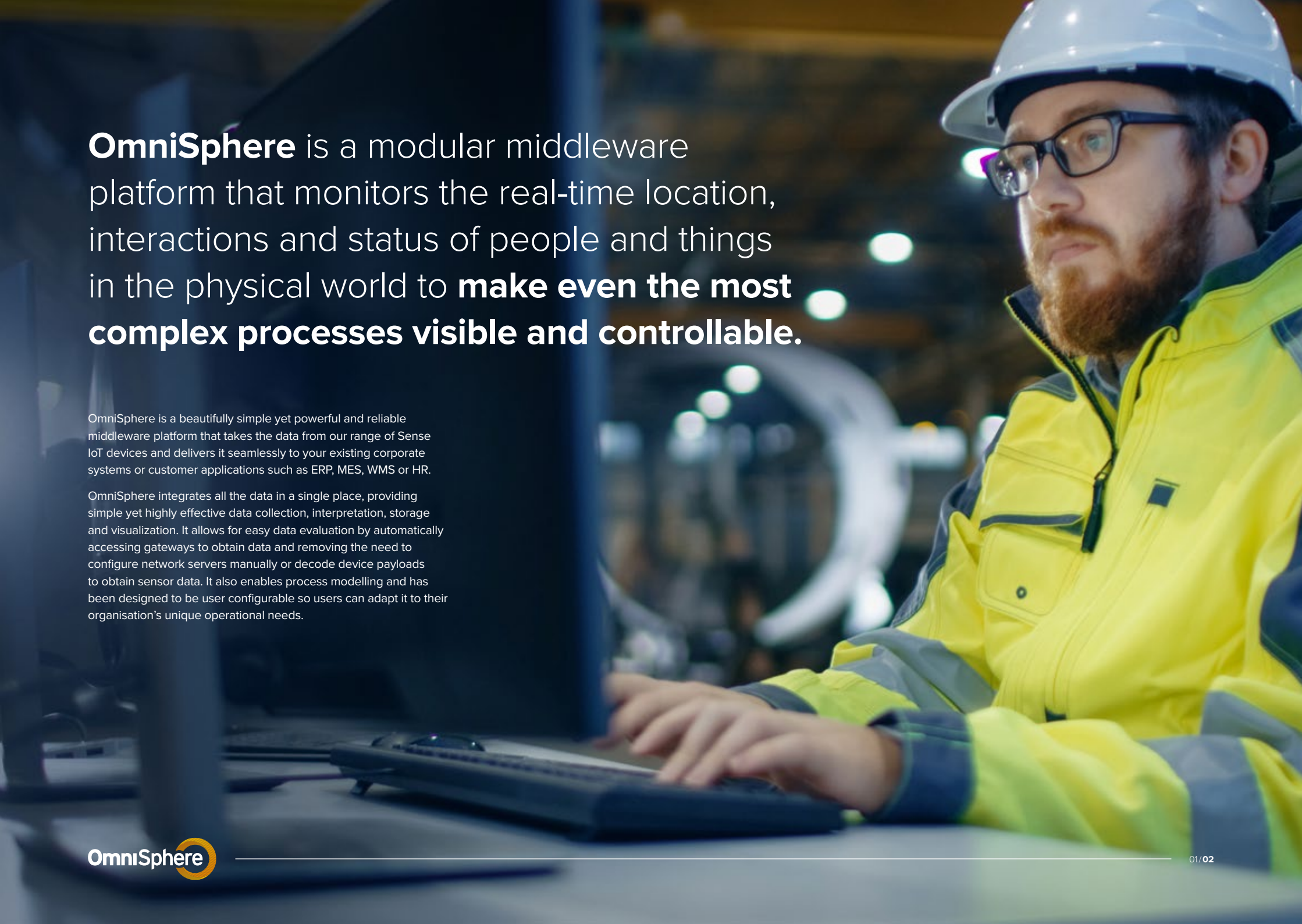


A product of:

Omni-ID[®]

Comprehensive middleware
that allows you to easily locate,
track and monitor assets
or personnel.

OmniSphere
IoT Middleware from Omni-ID[®]



OmniSphere is a modular middleware platform that monitors the real-time location, interactions and status of people and things in the physical world to **make even the most complex processes visible and controllable.**

OmniSphere is a beautifully simple yet powerful and reliable middleware platform that takes the data from our range of Sense IoT devices and delivers it seamlessly to your existing corporate systems or customer applications such as ERP, MES, WMS or HR.

OmniSphere integrates all the data in a single place, providing simple yet highly effective data collection, interpretation, storage and visualization. It allows for easy data evaluation by automatically accessing gateways to obtain data and removing the need to configure network servers manually or decode device payloads to obtain sensor data. It also enables process modelling and has been designed to be user configurable so users can adapt it to their organisation's unique operational needs.



The benefits of using OmniSphere at a glance

Proof of Concept and feasibility studies are quick and easy

Customers and channel partners can vastly reduce the time taken from solution validation to full production.

Device Management at the right scale to suit the customer's operations

OmniSphere can be fully configured through a web based user interface to cost-effectively monitor and manage a fleet of devices of a specific size.

Syncronisation with other corporate systems

OmniSphere's backend API directly connects to your ERP, WMS, MES, GIS or other business & operations systems to update them in real-time about what is actually happening in your process.

Unified point of contact for customers and channel partners

OmniSphere directly connects users with Omni-ID, for ticket management, license billing, documentation and integrated technical support.

Fast & easy solution implementation from a ready-made application

The built-in user application informs you in real-time if processes are off-plan or assets are misplaced. This reduces errors and eliminates wasted search time.

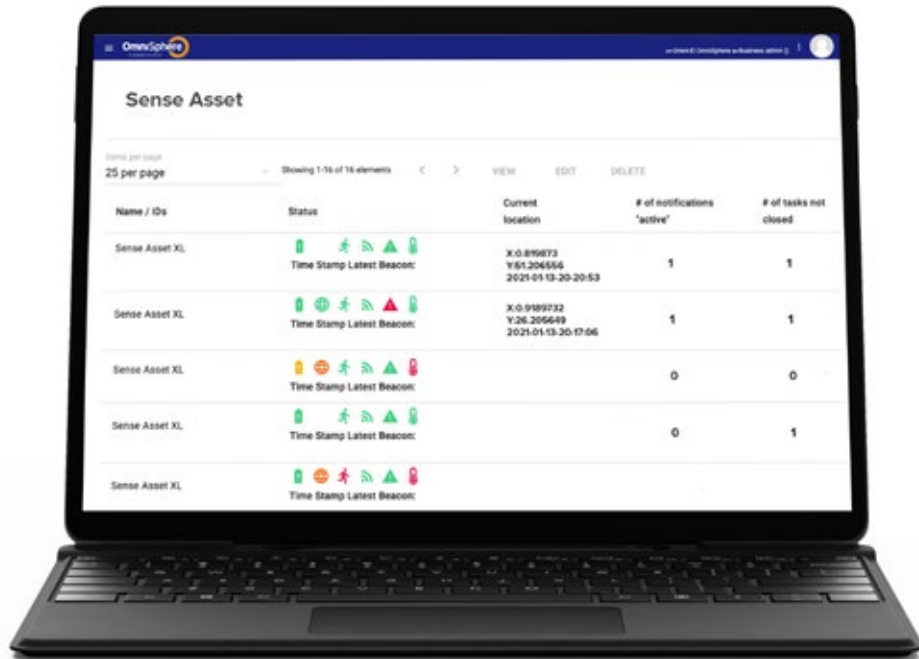


Figure 1 – Sense Asset XL device status dashboard showing simple view displaying device battery voltage, GNSS Fix, time stamp, latest beacon, motion alarm and temperature alarm data.

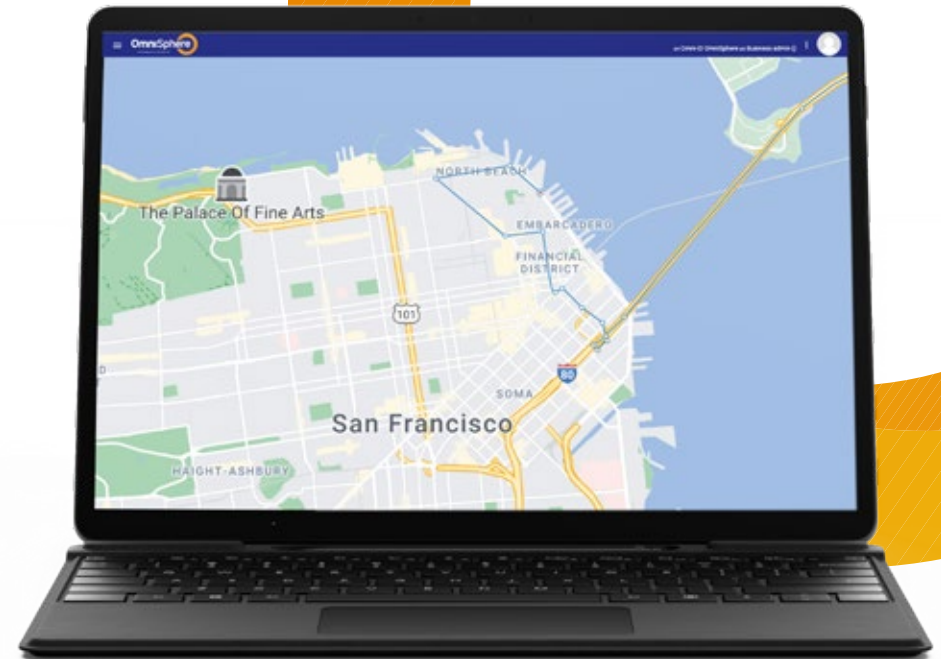


Figure 2 – shows Sense Asset XL, breadcrumb map showing current and historic location of the device.

Omnisphere has been designed as a device management platform with a range of easy-to-use dashboards providing the information required for quick and robust ‘proof of concept’ investigations and rigorous technology evaluations.

The dashboards make it easy to see and interpret sensor data from the devices, for example motion alarm, temperature, range measurement or push button alerts.

Omnisphere’s rule engine includes basic features such as generating alerts based on sensor data, for example alerting via email when a device enters or leaves a geofence or notifying that a device is reporting the measured temperature is out of a pre-configured threshold.

Sense devices can be easily configured using the Sense Config app. Data visualisation showing sensor settings and previous position of devices is easy to access and view via the Omnisphere web interface using a desktop or handheld browser.

OmniSphere provides the perfect middle 'service' layer between Omni-ID Sense IoT devices and your corporate applications

User's Existing Software Platforms

Corporate Applications
MES, WMS, ERP, HR, etc
SAP **ORACLE**

Customised Dashboards

Front-end UI through API or DB Access

OmniSphere Middleware



OmniSphere Service Layer
+ Event based tracker server
+ Workflow server
Enables multiple vertical applications
+ API access

Asset and People Tracking
Workflow and KPI reports
web based applications

3rd Party Cloud Services
+ Providing services such as RTLS
- Quuppa Positioning Engine (QPE)
- WIREPAS Positioning Engine (WPE)
- BLE based location tool
+ Location Event based services

UHF RFID Readers
OmniSphere agent runs inside 3rd party readers

LoRaWAN Network Server and Gateway

BLE gateway

Quuppa Locators

Sense WIREPAS

SenseConfig
SenseConfig App

Omni-ID Sense Family of IoT Devices

Omni-ID Passive RFID Devices

Sense Condition

Sense Asset XL

Sense Asset

Sense Shield

Sense Lite



The 4 Highlights of OmniSphere

OmniSphere integrates the major tracking and positioning technologies utilised by Sense devices - LoRa, BLE, Quuppa, GPS and RFID.



Easy integration



Powerful API with ERP and business applications

- Partners or customers can integrate OmniSphere data into their own business tools like ERP, WMS, MES
- Available options:
 - Intermediate exchange tables for back-end systems (XML and JSON)
 - REST/JSON and websockets for web-based applications
 - MQTT

Easy setup and deployment



Easy-to-deploy middleware integrated with Omni-ID devices

- Plug-and-play: Connect the gateway to the internet and you are good to go
- OmniSphere automatically pulls device data through the gateway and collects, digests and presents it in a user-friendly, configurable interface
- Ready for PoC and production

Self-managed



Customer can self-configure and provision

- Basic process-oriented functionality
- Tasks, KPIs and reports
- Multi-tenant application
- Full access control (organisations, users, profiles)

Track & Trace



Comprehensive tracking

- Traceability events - what, where, when, how
- Logging and processing data about the movements/status of 'things' and moving people
- Events, KPI, Reports
- Server-based algorithms, ML, AI



Omni-ID's suite of IoT devices come in a variety of technology types and with a range of sensor options.

Combine this with the flexibility and power of the OmniSphere platform and there are a huge number of use cases ready to be tracked and monitored, including:

- Tool Tracking
- Worker Safety and Productivity
- Warehousing and Yard Management
- Workflow Monitoring
- Industrial Assets
- Inventory Management
- Personnel Tracking and Monitoring
- Operations Management

OmniSphere is a key element in the Sense Technology Evaluation Kits. These kits are available in a BLE version and a LoRaWAN version and come with two-months' access to OmniSphere Lite* and pre-configured for the devices supplied with the demo kit. All that is required is to plug in the gateway to a network switch to provide an internet connection.

The gateway will then automatically push the device data it receives to OmniSphere where data is interpreted, stored and displayed on a user-friendly graphical user interface. Speak to your Omni-ID sales representative to discuss the benefits of OmniSphere and to order one of the evaluation kits.



*OmniSphere Lite is the Demo version of OmniSphere that allows for testing and POC's



Omni-ID is the leading supplier of passive, low-profile UHF RFID solutions. Through our patented technology, Omni-ID “cracked the code” to overcome the problems traditionally associated with RFID, enabling a broad range of new applications that improve accuracy and efficiency in asset tracking, supply chain management and work-in-process.

Our family of versatile RFID tags works reliably in the harshest environments, including on, off, and near metal and liquids and excels in solving tracking and identification challenges with unprecedented accuracy.

With offices in the USA, UK, Asia and India backed up by a purpose-built manufacturing facility in China, our mission is to drive the widespread adoption of RFID and wider IoT technologies as the optimal tracking and identification devices.

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