SOLUTION - INDOOR AND OUTDOOR RTLS

RFiD DISCOVERY

Real-time indoor and outdoor inventory and asset tracking

Keeping track of products, parts, assets and raw materials in indoor warehouses and outdoor storage areas is a challenge for many logistics, manufacturing, and other businesses. Failing to locate the right part or product quickly can cause production or shipping delays.

Traditional tracking solutions often require a dense reader infrastructure to provide accurate location data and therefore carry a high cost and effort involved in the implementation.

Key Benefits

- Real-time inventory and asset management
- No fixed infrastructure cost for quick ROI
- Fast and easy to deploy
- Improves productivity by automating processes and reducing time spent locating items
- Accurate inventories without the need for manual stock checks

The solution

RFID Discovery's new real-time indoor and outdoor tracking system provides the perfect solution. By accurately tracking the location of inventory and assets, it enhances productivity, increases stock accuracy, and improves flow management.

With readers mounted directly onto materials handling equipment (MHE), this solution enables continuous indoor and outdoor traceability for assets and inventory without the need for fixed infrastructure.

The solution was developed in close co-operation with industry and enables the 3D tracking of items. This means the system not only records the rack location or outdoor location, but also the height of the item on the shelf or stacking position in a pile.

> This system is the best technology for industry 4.0, enabling real time asset tracking, accurate location and workflow digitalisation.

Nicolas Auger
SEM Digital Manufacturing, Michelin

How does it work?

Each item to be tracked is fitted with a passive UHF RFID tag. MHE such as forklifts, cranes or automated guided vehicles (AGV) which move these items, are fitted with a specially designed reader. The reader includes multiple UHF RFID antennas as well as GPS and Lidar for outdoor applications.

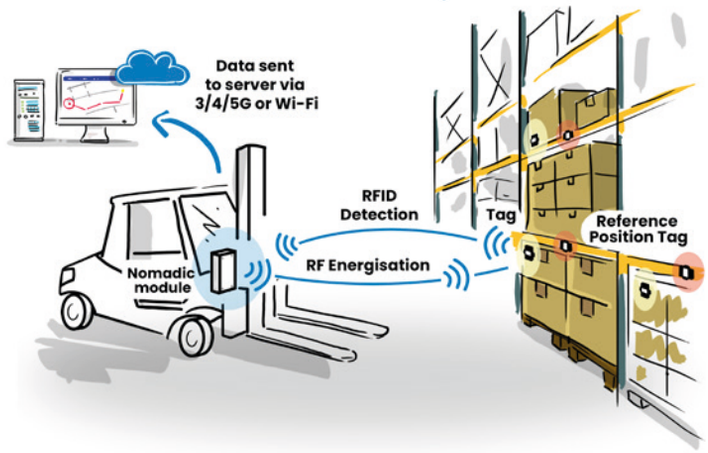
By detecting reference position tags mounted on each shelf location, the MHE-mounted reader determines the position of where an item is dropped. At the same time, the item tag is read and associated with the shelf location at the time of the drop.

For outdoor applications, the forklift location can be tracked via GPS or alternatively, landmark RFID tags can be placed on the floor at each storage position to confirm the location of the product or pallet drop.

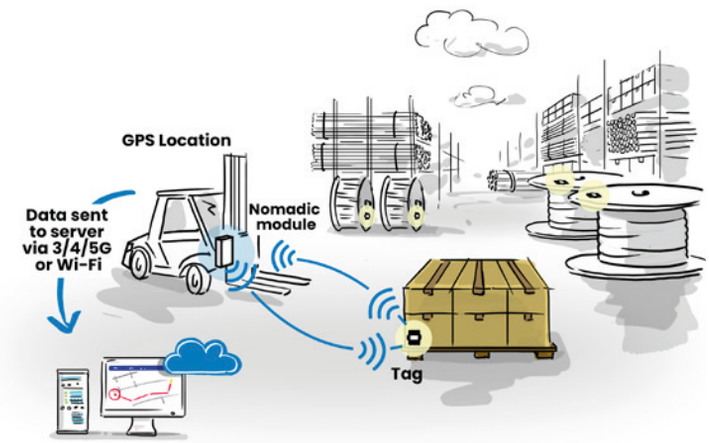
Location data is then sent to the central RFiD Discovery database via Wi-Fi or 3, 4 or 5G network. Where no network is available, data is stored until a network connection is made.

The RFiD Discovery platform provides a choice of mapping and list views to show the location of tagged products and assets. Data can be displayed by product position, product type or production order. Historic data is stored so that product and equipment movements can be analysed to improve processes and streamline operations.

Indoor tracking



Outdoor tracking



Potential savings

- Productivity gains through automation
- Reduces time spent looking for stock or assets
- Eliminates the need for manual stock checks
- Helps avoid costly production delays and shipping errors
- Provides valuable data for optimisation of processes, storage area layout and vehicle fleet

Forklift trucks fitted with RFiD Discovery readers

Why choose RFiD Discovery?

RFiD Discovery is part of Paragon ID, a global leader in identification solutions.

RFiD Discovery is a leading provider of integrated location and identfication solutions which help organisations across different sectors to increase efficiency, save time, improve safety and cut costs. Our solutions have been used in the UK and worldwide for over 15 years. Our wide choice of tracking technologies include RFID, Bluetooth Low Energy (BLE), Ultra-Wideband (UWB), Wi-Fi, GPS and many others to suit your accuracy and budget requirements.

Our parent company, Paragon ID, is the largest manufacturer of passive RFID labels in Europe and accredited to ISO 9001, ISO 14,001, ISO 27,001 and ISO 50,001.

GS1 UK Industry Partner

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