USE CASE

Load Carrier Tracking in Logistics

AT A GLANCE
- overview of load carrier stock
- seamless monitoring of location and status changes

whether a load carrier has been loaded onto the correct transport vehicle, where it is currently located or whether it has already been delivered to its destination.

In addition, authorized geographical zones can be defined for the purpose of preventing theft or unwanted use. If a load carrier leaves such a defined area without permission, an alarm message is sent, e.g. via push message or email.

It is also possible to check at any time whether the vehicles are still on schedule so that countermeasures can be taken in good time if delays are expected.

Problem definition

Load carriers such as containers, pallets or boxes are of immense importance as transport and storage resources in production and logistics. However, the management of load carriers is not highly automated. Problems such as container shrinkage and missing or excess stocks create search times, downtimes and incremental cost for additional load carriers. Long circulation times, poor capacity utilization and a lack of knowledge about the condition of load carriers lead to inefficient processes.

Solution

A tracking system based on BLE and GPS technology enables seamless tracking of the load carriers and thus optimized control of logistical processes. Using a web-based application, identification data can be viewed and corresponding queries can be performed. Thus, information on driving, standing or loading times can be called up at any time. It can be seen

Technical implementation

infsoft Locator Nodes are installed at the loading areas of the transport vehicles. Bluetooth Low Energy (BLE) beacons attached to the load carriers send signals to the mobile Locator Nodes. Outdoors, the position of the trucks is determined via a GPS unit integrated in the Locator Node. If indoor tracking is also desired, localization is carried out via BLE beacons and infsoft Locator Nodes installed in the building.

The position data acquired with the help of the GPS/BLE components is transferred to the infsoft LocAware platform®. Here, the position is calculated and made available via web services. Using a web interface, employees can access the data and see the location of the load carriers / vehicles on a map. Using infsoft Tracking, further attributes such as inventory number and transported material can be assigned to the beacons, which can also be searched for.

infsoft's Beacon Management tool facilitates the maintenance and monitoring of the radio transmitters. Logistical partners can easily be integrated via an interface to the ERP systems of the parties involved in the process.