



## Indoor Navigation and LED Identification of Goods in Logistics



### **AT A GLANCE**

- real-time information on order status and productivity rates
- location overview of all goods including status information
- simple identification of orders by LED signals
- indoor navigation within the warehouse



exchanged in real-time with the superimposed material flow or warehouse management system.

## TECHNICAL IMPLEMENTATION

The boxes to be tracked are equipped with Bluetooth Low Energy Beacons with LED lamp. Based on proximity logic (picker and goods are within a defined catchment area), the Beacon LED flashes as soon as the employee approaches the goods and is thus easier and more reliable to identify.

insoft Locator Nodes are installed on the walls of the warehouse for indoor positioning. The Locator Nodes receive the bluetooth signals and transmit the data to the insoft LocAware platform®. Here the position is calculated and provided via web services. An app gives order pickers access to the data and the location of the goods on a map. Via an SAP interface, additional attributes such as type of goods, number of units and other characteristics are assigned to the beacons, which can be searched for within the application. The Beacon Management Platform monitors battery status to facilitate maintenance.

## PROBLEM DEFINITION

In a large warehouse there are several thousand goods that are transported by forklift trucks or route trains for further processing. Efficient processes are important to minimize delays, production stops and the associated additional costs.

## SOLUTION

Order pickers can locate the position of the goods they are looking for in an app. Areas that require high picking speed with a low error rate often rely on „pick-by-light“ solutions that can be linked to location information. Bluetooth Low Energy Beacons have LED lamps, so that when the picker approaches with a linked job, a light signal can be output for easy identification of the unit.

After removal, the order picker confirms the process by pressing a button in the app and the signal goes out. All required information is

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