inFSOFT
smart connected locations

USE CASE

Localization of Vehicles in Crash Test Facilities

AT A GLANCE

- determination of presence and position of vehicles and vehicle parts
- management of assets in a mobile app

PROBLEM DEFINITION

In crash test facilities, vehicles that have already been tested and individual parts removed from these vehicles are stored temporarily, as they are often further inspected in-house or by external parties later. Since the area on which the vehicles and vehicle parts are located is usually very large, the search for a specific vehicle or individual part at a later time can be time-intensive.

SOLUTION

Tracking vehicles and individual parts on the area of a crash test facility reduces search times considerably.

A tracking solution enables the localization of assets across indoor and outdoor areas. Since in most cases it is sufficient to determine whether a car is located in a certain hall or not, it can be enough to detect the presence of a vehicle in a particular area. If the hall is very large, or a higher positioning accuracy is required for some other reason, positioning with an accuracy of a few meters can be realized alternatively. The position data can be viewed in a mobile app at any time.

In addition, the assets that are tracked can be managed in the app. When attaching BLE tags to assets, relevant information can be assigned to the tags directly via the app. This includes the name and serial number of the vehicle or part, the date of the crash test and much more. An additional function is the merging of previously individually tracked parts. If, for example, several individual parts are stored together in a pallet cage and are no longer to be tracked individually but as an entity, then this assignment can easily be carried out in the app.

TECHNICAL IMPLEMENTATION

infsoft Locator Nodes with connected infsoft 360° Antennas are installed throughout the site. The Locator Nodes are connected to a network. If a connection via Wi-Fi or Ethernet is not possible, the Locator Nodes can be equipped with a UMTS card. Vehicles and relevant individual parts are equipped with resistant Bluetooth Low Energy (BLE) beacons with a high IP protection class.

The infsoft 360° Antennas detect incoming signals of the beacons and send the scan data via USB interface to an infsoft Locator Node. From there, the data is transmitted to the infsoft LocAware platform® where the position of the beacon is calculated. Employees can access the position data using an app.

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