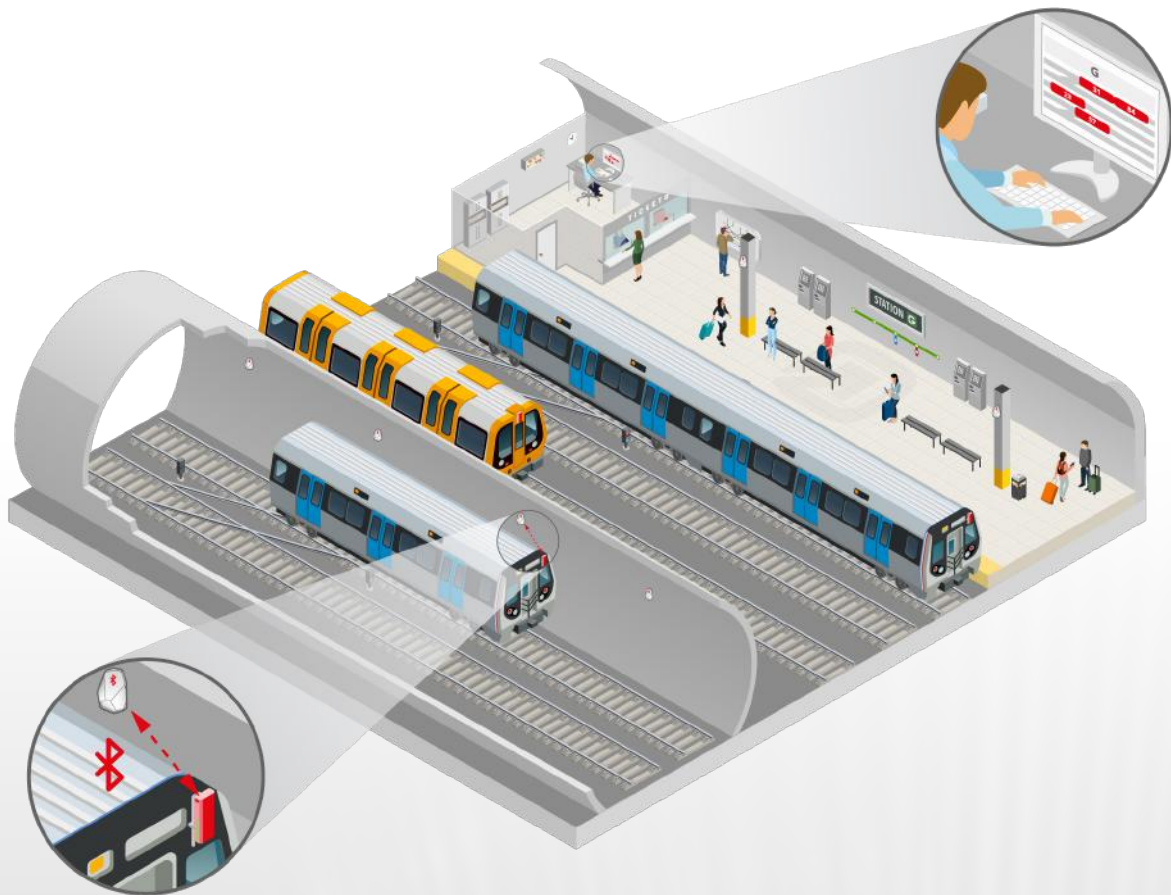# Railway Train Tracking System

AT A GLANCE
- real-time localization of railcars
- location overview of all operating trains including status information and movement history

Problem Definition

In railway traffic, it is difficult to meet the high demands of efficiency, safety and good infrastructure utilization without accurate train information. Especially on track sections in between stations, insufficient information on where exactly the trains are located can lead to poor or ineffective capture and coordination of processes and operations.

Solution

A tracking system allows knowing the positions of all operating trains at any time and viewing them on a map. It helps to quickly find and deploy certain trains using real-time location information. Additionally, these can be combined with status attributes such as delays and planned service work.

Technical Implementation

Throughout the tunnels and stations, Bluetooth Low Energy (BLE) beacons are installed. An infsoft Locator Node is attached to each train wagon. The Locator Node enables tracking down the location of the train by receiving the beacons' signals and transferring it to the infsoft LocAware platform®. Here, the data is processed and the positions of the trains are provided via web services. An app or browser application gives operators access to the data and displays the trains' locations on a map. It is possible to assign additional status information, which can also be searched for. Via infsoft's Analytics engine, historical data on the trains can be retrieved.