



ASFINAG

Asset Management Solution
Case Study



THE COMPANY

ASFINAG, the Austrian motor-way company, manages the entire Austrian motorway and expressway network. ASFINAG is responsible for the planning, financing, building, maintenance and operation of almost 2,100 km of roads. They have over 80 locations (6,000 rooms) with about 50,000 assets which need to be accounted for inventory.



CASE BACKGROUND

Today, company inventories are often made by checking paper lists extracted from Enterprise Systems, such as an ERP system. This method is prone to errors and other disruptions, as it involves manually transferring data between an IT system and the employees conducting the inventory. Visually checking the presence of an asset against a list also exposes the process to error and manipulation, therefore affecting the integrity of the inventory.

With manual checking of assets against a paper or electronic list, it is difficult to confirm if an asset really exists. Using RFID the employee needs to read out the transponder, therefore the asset must be available.

THE BENEFITS

Using the readily available data, the customer can automate processes, such as Asset Drop Outs and Asset Location Changes, as well as identify areas of optimization, such as the Purchase Process. The implemented solution can be expanded to applications such as:

- Access Control for Vehicles
- Real-Time Tracking within defined Area
- High Value Goods Tracking, and even more.

THE SOLUTION

- Process Analysis and Optimization
- Asset Analysis and Transponder Selection
- Design of offline, mobile Asset Management Solution
- Integration with existing ERP System (SAP) for Data Exchange
- EPCglobal compliant UHF technology ensuring high reading range, even without direct line of sight

THE CHALLENGE

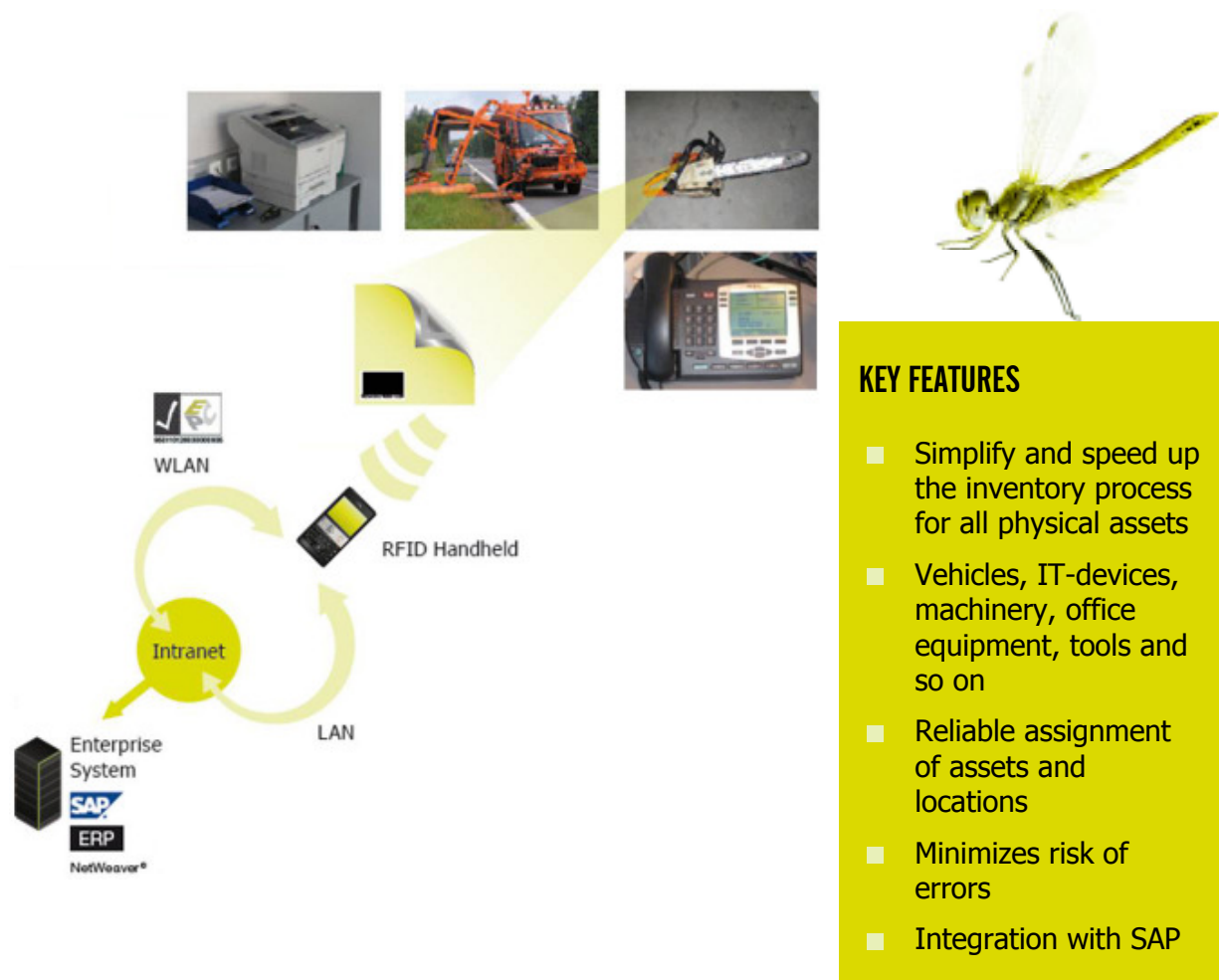
- A wide range of assets necessitates an optimal selection of RFID transponders;
- Harsh environments, such as salt and other chemicals, wind, rain and sunlight, including ultra-violet light and heat;
- RFID transponders will be attached to a wide range of materials;
- Mobile application must cover the equipment of assets with RFID transponders as well as inventory processes;
- Solution must be compliant with international standards and regulations for RFID systems;
- Authentication, Authorization and Synchronization capabilities require direct connection from handheld RFID devices to enterprise systems.

THE PROJECT

The designed solution contains two main process phases. The first phase includes the installation of all assets with RFID transponders. The associated data linkage is made between the SAP data and the specific read EPC of the RFID transponder. Once all assets have been accounted for, the basic inventory process can be carried out in the second phase.

The process is as part of a mobile application running on the RFID handheld device. This connects to the Enterprise System through either an intranet and/or the Internet. Once the data from a selected customer site is synchronized, the application can be used in an offline operation mode. As well as physical assets, locations such as rooms and other points of reference can be fitted with RFID transponders. The data flows from the RFID transponder through the RFID reader to the Enterprise System. As no human input is required, other than operating the RFID reader, the presence of assets cannot be manipulated because RFID transponders have to be read.

If an asset or the related transponder is missing, the asset can be assigned a specific status, such as transponder missing, asset missing, or transponder defect. This status is then entered in to the inventory. With fully automated data acquisition, many sources of error and disruption are eliminated, thereby assuring the accuracy and integrity of the inventory.





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