

DIGITAL BUSINESS MEDIA DAY: Siemens Mobility

Railigent X

The open application suite that leverages IoT and AI for rail assets

Challenges

To name a few challenges: Digitized workflows, increased **reliability** and optimization of **lifecycle costs** through a **data driven approach**. We need to ensure operations are not disturbed by technical issues and we need to avoid penalties/customer escalations and improve passenger experience. Asset management processes need to be supported according to ISO 55.001.

Solution

Railigent X makes intelligent use of rail asset data to create added value. It empowers rail operators, maintainers, and asset owners to understand their railway data, **generate valuable information**, and acquire deeper insights about the performance of their assets. As an **open application** suite Railigent X set up a **strong ecosystem** for customers, partners, and developers with the goal of **integrating all rail assets**.

Benefits

Lifecycle costs can be reduced with extended service and maintenance intervals. Using **predictive maintenance** allows the detection of incipient failures and therefore decrease unplanned downtime. Also, a **reduction of unnecessary transfers to maintenance** is achieved as well as **lower energy consumption**. Operations and maintenance can be improved and optimized for a **system availability of up to 100%**.

Mobility as a Service

Plan. Book. Ride.

Challenges

Driving the shift from using private cars to **more sustainable** modes of **transport**, thus **changing the behavior of travelers**. People do not want to deal with complicated booking processes, multiple logins and switching between different apps when traveling. But transport operators and service providers often use different systems and data formats.

Solution

The key to address the challenges is a **modular, scalable, and open MaaS Platform** that allows deployment at different locations and integrates with existing local IT infrastructure. We need to establish a **network of partners** to facilitate MaaS platforms and to provide a framework for collaboration on MaaS projects.

Benefits

Mobility as a Service is contributing to a **sustainable** way of traveling and attracting more people with **mobility offers from door to door**. Operators stay in control of their data by building an own platform. It enables an accelerated process of finding collaboration partners.



S3 Passenger

Inventory, Reservation, and Ticketing Software for Mainline Rail and Bus Operators

Challenges

The industry lacked a configurable standard product, and operators were using outdated technology for mission-critical processes. **Legacy systems** were mostly unable to keep up with the increasing demands of both operators and passengers.

Solution

A fully **scalable and modular web-based platform** can handle millions of transactions per day. **S3 Passenger** is a standardized but **highly configurable** solution with many out-of-the-box functionalities. It offers continuous innovation with **constant updates** and **customer involvement**.

Benefits

Inventory Management with seat reservation for multi-segment journeys is leading to **increased seat utilization**. It enables **dynamic pricing** to optimize the revenue and capacity utilization. It **offers (automatic) re-accommodation**, self-service rebooking and refunding in the case of disruptions.



Train Planning System (TPS)

Unleash the Network's Full Potential

Challenges

How can existing tracks and trains be used optimally, even when **disruptions** occur, **construction work** is necessary and **maintenance work** is required?

Solution

From long-term timetable construction to train dispatching in real-time or planning track works: **TPS offers a wide range of flexible applications** that help optimize operational processes.

Benefits

TPS.plan combines the management of rail infrastructure, timetables, and train paths. It provides reliable timetables for strategic long-term planning as well as annual and daily timetables and leads to an optimized utilization. When existing timetables need to be changed on short notice, **TPS.live** is the optimal software to react to disruptions with no time loss while considering all network operations. With **TPS.trackworks**, constructional measures can be planned with as little impact on passengers as possible.



Demand Responsive Transport (DRT) & Fleet Management

Challenges

Whether it's **managing fleets** with fixed routes and schedules, or **digitally orchestrating on-demand services** to complement public transport, both tasks require intelligent systems that **meet the needs of passengers, drivers, and dispatchers alike**.

Solution

For DRT-services, Padam Mobility has developed a solution that generates **optimal routes based on passenger demands** while **keeping the costs to a minimum** for PTAs and operators. Various operating models, proven algorithms and real-time demand monitoring ensure that mobility can be expanded where needed. HAFAS.fleet is our solution for **fleet management with scheduled routes**. It consists of two components: The **driver app**, which gathers real-time data on current locations of vehicles and reports them to the second component – a **control center for dispatchers**.

Benefits

Expansion of regular services through **on-demand transport for the first and last mile**, in rural and suburban areas or at off-peak times. **Scalable vehicle management** solution that is **web-based**, platform-independent and can be set-up with a relatively **low invest**.

