PAC
Innovation Register

Case Study

Schmitz Cargobull Telematics GmbH

Telematics Internet Service Portal 2.0
Schmitz Cargobull Telematics, which is headquartered in Münster, Germany, has been a market leader in Europe for more than a decade and has installed many thousands of telematics systems for vehicle trailers. The company regards itself as a systems integrator for trailer telematics and a solutions provider for logistics applications.

As an independent subsidiary of Schmitz Cargobull AG, the company understands the needs of trailer customers and continuously feeds its knowledge of customer requirements into the “TrailerConnect” telematics portal. The company received the “Best of” award in the “Telematics for Trailers” category at the German Telematics Prize 2016.

The product range from Schmitz Cargobull Telematics comprises a whole host of services within the “TrailerConnect” M2M telematics portal, the provision of interfaces for customer systems, and also support and user training. The product range seeks to provide transparency, cost optimization, and enhanced efficiency across the whole logistics chain for the customer’s organizations.

With an annual production of over 45,000 vehicles, just under 5,000 employees, and sales of €1.6 billion (2014/2015), Schmitz Cargobull AG is Europe’s leading manufacturer of semi-trailers, trailers, and bodywork for temperature-controlled freight, general cargo, and bulk material.

### THE CLIENT: SCHMITZ CARGOBULL TELEMATICS GMBH

Schmitz Cargobull Telematics deploys telematics solutions to optimize transport processes in freight transport on the road and makes them as transparent as possible. The telematics portal 2.0, which was developed in partnership with T-Systems Multimedia Solutions, T-Systems, and Telekom Deutschland, provides an optimum preparation of real-time data.

The platform, which is based on M2M technologies, expands the traditional notion of a portal by deploying innovative approaches from the Internet of Things: with data on location and route, speed and cooling temperature as well as the technical condition of the vehicle to facilitate preventive maintenance.

Also, the on-board unit (OBU) of the trailer can be managed from the portal, for instance to close doors or regulate cooling temperatures. A further component of the project is a rules engine and a push interface, which enable defined workflows to be initiated automatically using analyzed trailer data. For instance, if a trailer is approaching the logistics center, the driver is sent an automatic message telling him which gate is reserved for loading/unloading.

### THE OUTCOMES

- Trailer monitoring of status information such as position, cooling temperature, technical state, or coupling status
- Data selection based on a defined role concept
- Uncluttered views and intuitive operation with few clicks
- API link for customer solutions
- State-of-the-art interface for mobile end devices
- Platform for new services

### THE REQUIREMENTS

- A central telematics portal for freight carriers and logistics service providers
- A state-of-the-art and very user-friendly user interface
- State-of-the-art architecture and support for mobile end devices
- High performance in processing large quantities of data
- Modular structure for simple expansion of functions
- Scalability of services
- Implementation of regulatory requirements for different markets

### THE PROJECT: PLATFORM FOR NEW BUSINESS MODELS

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“The aim of our telematics system is to promptly identify and avert any disruptions in our customers’ transport processes, regardless of their vehicle structure and the cargo they transport.”

Karl-Heinz Neu, Managing Director
Schmitz Cargobull Telematics GmbH
Source: IT Management 03/2016

TECHNICAL PROJECT DESCRIPTION

The platform was developed using open-source technologies such as Angular JS, Java, ECMAScript 2015, HTML5, Bootstrap, Sass, REST, Spring, and JBoss. The portal’s new front-end offers a contemporary look & feel with a user interface that is intuitive to operate.

Thanks to its responsive design and a new operating concept, users such as fleet managers, dispatchers, and consignors can use tablets to keep a constant eye on all trailer data, even when they are on the move. A detailed role concept enables specific user interfaces to be provided by user profile. Its state-of-the-art architecture opens up capabilities for further growth.

THE BENEFIT TO THE CUSTOMER: EFFICIENCY AND TRANSPARENCY

The telematics service portal generates added value for its users by providing its users with data on location and route, condition and temperature of the transported goods, and also data on the technical condition of the vehicle, such as brake wear. This real-time data can be used to improve management of transport processes and prevent unladen journeys, detours, and disruptions.

A further advantage is the system’s legal compliance: the portal enables cooling chains to be better complied with and the expiry of the TÜV vehicle certificate.

The portal also provides Schmitz Cargobull Telematics with a basis for new customer services, so the provider can offer its customers increased efficiency in planning and utilizing the vehicle fleet. This enables sales per head to be increased and fuel costs and investment risks to be reduced.

Schmitz Cargobull Telematics hopes that the new platform and its varied, innovative functions will be a unique selling point that will enable the trailer manufacturer to further expand its market-leading position and set itself apart from the competition.
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Schmitz Cargobull Telematics

CATEGORIZATION
Sector
Manufacturing/logistics
Subject
Telematics, smart logistics
Project status
Go-live in the fourth quarter of 2016
Project duration
Approx. 18 months
Technologies used
GPS, mobility, IoT, responsive design, tracking, tracing, portal technology
Region
Germany
Partner
T-Systems Multimedia Solutions GmbH

PAC’S ASSESSMENT
Relevance
★★★★
Maturity
★★★★

PAC’s comments
The tracking/tracing project by Schmitz Cargobull Telematics is a good practical example of how a trailer manufacturer can deploy digital technology to offer its customers state-of-the-art solutions for monitoring and managing vehicle fleets. The project underlines the importance of a user-oriented portal solution for freight carriers and logistics service providers. PAC considers the project to be a use case with very high relevance for the logistics sector. The fact that the platform provides a suitable basis for trailer-sharing services was assessed as a positive factor in the evaluation. This opens up a range of new business models for Schmitz Cargobull.

The API for third-party providers guarantees that not only trailer data, but also external information sources such as the traffic situation, weather data, and above all freight data can be included in the graphical user portal. The Telematics Internet Service Portal 2.0 thus lays the foundation for integration with the transport management systems (TMS) and business intelligence applications of logistics companies. The integrated rules engine is the foundation that enables an analysis of the data to trigger automated workflows. These enhanced functions of the Telematics Internet Service Portal 2.0 create a sound basis for new business models for the participating companies.

Explanation:
Relevance
★ = Concept is good with room for development
★★ = Interesting for a special, limited target group
★★★ = Excellent example for a specific region or sector
★★★★ = Globally applicable best-practice example

Maturity
★★ = Data – generate
★★★ = Data – process
★★★★ = Analytics – dashboard
★★★★★ = Analytics – action
★★★★★★ = Business case – improvement
★★★★★★★ = Business case – disruptive

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ABOUT THE INNOVATION REGISTER FROM PAC – A CXP GROUP COMPANY

Industry 4.0 and the Internet of Things are generating a good deal of interest. Numerous companies appreciate the relevance of these topics and want to know more. As well as trend studies and academic research papers that discuss the potential of these technologies, companies want real-life case studies that are related to their specific situation and business challenges. Positive case studies can provide value by serving as best practice in order to avoid pitfalls.

The Innovation Register provides companies with business case studies and provider data on Industry 4.0 or the Internet of Things. Users can access case studies related to their specific industry and situation, which can be used as best practice. Further, users are given detailed information on the capabilities of potential IT or engineering partners in their respective industry. Every capability shown in the database can be found in the offerings of a selected group of companies, based on PAC’s research or on the self-assessments provided.

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