(Image: RMV/Jan Haas)

MULTI-OPERATOR FLEET MANAGEMENT FOR THE RHINE-MAIN REGION

INITIAL SITUATION

Rhein-Main-Verkehrsverbund GmbH (RMV) transports around 805 million passengers every year. As one of the biggest transport associations in Germany, RMV coordinates and organises around 160 bus and railway service operators – both small and large – over an area covering around 14,000 km². A number of local public transport authorities operate in this region, too. Rhein-Main-Verkehrsverbund Servicegesellschaft GmbH (rms), a wholly owned subsidiary of RMV, supports the further development of digital sales, data supply for passenger information systems and development of software solutions.

OVERVIEW

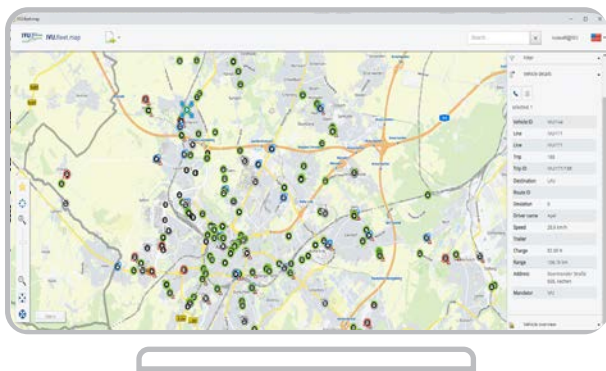|	
Vehicles (RMV)	Currently approximately 250 buses connected to the system with around 15 operators (as at: December 2020)
Transport capacity (RMV)	805 million passengers/year (estimate from 2019) over an approximately 14,000 km² operating area
Operations	Public transport, software
Objectives	Harmonise the IT landscape in RMV Implement a multi-operator system Coordinate the individual transport operators
Special features	Many different transport operators within RMV Individual regional requirements rms as operator of the system delivered by IVU
IVU products	IVU.fleet, IVU.cockpit, IVU.box, IVU.fare, IVU.ticket, IVU.realtime, IVU.control, IVU.system.monitoring

OBJECTIVES

To relieve the individual transport operators of the administrative tasks involved in the use of complex IT systems for operational purposes, rms decided to offer RMV members an multi-operator operation control system. The system is entirely voluntary for transport operators and local public transport authorities.

SOLUTION

IVU.suite offers stable and high data quality and continuous expansion of the functional scope to reflect the growing requirements of public transport. IVU makes the system available and installs on-board computers in vehicles operated by the individual association members.

The multi-operator system allows not only operational processes to be defined in a standardised and transparent manner and across multiple companies, but also technical operations to be centralised. Each operator employs the same automated processes. IVU.fleet continuously records vehicle data, which is then transferred via special interfaces to RMV's central data hub. This allows RMV to manage connections and provide detailed passenger information throughout the association and across different companies.

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The driver-operated IVU.ticket.box on-board computer continuously records the vehicle position and transfers this via a mobile radio system to the control centre, while the IVU.cockpit on-board computer software supports drivers with information about journeys and any delays – even when the feeder vehicle is operated by an external company.

As an all-in-one ticketing solution containing all the data needed for processing ticket sales, IVU.fare facilitates fare management within the association. Equipped with an interface to IVU.fare, IVU.ticket calculates the appropriate prices and supports cash, cashless and e-ticketing purchases. To ensure that passengers always have the latest and correct information, IVU.realtime sends the consolidated real-time data for all operators to the external data hubs.

At the same time, the local public transport authorities can see what's happening at any given time. IVU.fleet.view, for example, provides a quick and simple analysis of all journeys made and so supports complaints management. In its capacity as system operator, rms uses IVU.system.monitoring to help it to respond instantly to technical problems.

While IVU supplies and sets up devices, interfaces and operators via IVU.xpress quickly and with no hassle for the members of the association, rms ensures problem-free operation and first-level support.

OUTCOME

Thanks to IVU.suite, rms offers transport operators in RMV a reliable and high-performance cloud platform for managing their operational tasks (subject to a usage fee). The association and its members benefit above all from consistently high data quality and standardized processes across multiple companies. And don't just take our word for it: since the solution was launched, the number of connected operators and public transport authorities has increased continuously.

"Association-wide IT harmonisation is a challenging task. IVU, with whom we have been working for a long time, was our first implementation partner. Thanks to the integrated IVU solution, we now receive significantly better data from the individual RMV operators – both in terms of quality and quantity."

Jörg Puzicha
Managing Director | rms