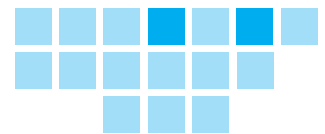


IVU.suite at ASEAG



OPERATIONAL CONTROL AND PASSENGER INFORMATION WITH REAL-TIME DATA



INITIAL SITUATION

ASEAG (established as “Aachener und Burtscheider Pferde-Eisenbahn-Gesellschaft” – Aachen and Burtscheid Horse Railway Company) operates 69 routes covering 2,000 bus stops in Aachen and the surrounding area. As in all major cities, it is not uncommon for services to suffer delays due to heavy traffic or even something as simple as a car parked incorrectly. One challenge facing dispatchers was that the ASEAG buses did not have transmitters reporting the locations of the vehicles and reliably passing their current positions in the city on to the control centre. Furthermore, communication between drivers and the control centre was possible only by means of the interference-prone analogue VDV (Association of German Transport Companies) data and voice radio. Even trees at the side of the road were enough to break the connection.

OVERVIEW

Employees	611, including 383 in transport service
Vehicles	215 company-owned buses, 141 buses belonging to contractors
Transport Services	64.5 million passengers per year
Operations	Scheduled urban bus transport
Objectives	Reliable bus positioning Improved communication with control centre Provision and use of real-time information Increase passenger satisfaction
Specific Details	Mixed radio: GPRS data radio and analogue voice radio Passenger app
IVU products	IVU.fleet, IVU.realtime

OBJECTIVE

The primary objective of ASEAG was to replace the outdated radios and install a system that would provide reliable support for communication between drivers and the control centre and transmit position data at frequent intervals. In the course of the conversion to state-of-the-art positioning technology, it was also intended to connect a high-performance passenger information system using displays and a passenger app to keep waiting travellers up to date on departure times and thereby to increase passenger satisfaction in the long term.

SOLUTION

ASEAG decided to implement additional components of the standard IVU.suite software already in use.

In collaboration with IVU, the outdated VDV data radio was replaced by a GPRS data radio on all 356 buses within just three months. The vehicles report their position to the control centre every twenty seconds. This enables extremely precise positioning, which means that the timetable situation can be calculated accurately. The driver and dispatcher can also contact each other via the company's own analogue voice radio. This means that ASEAG is not reliant on public data radio providers and is not affected if they suffer disruptions. This type of mixed radio enables the benefits of GPRS data radio and analogue voice radio to be combined. At the ASEAG control centre, data is collected in the IVU.fleet software component, where it forms the basis for operational control of the vehicle fleet.

The IVU.realtime passenger information system, which is dynamically linked with IVU.fleet, transmits the departure times of the buses in real-time to 65 dynamic passenger information display boards in the area. IVU has also developed the "ASEAG mobil" passenger app, which likewise accesses real-time data on bus departures. The free app informs passengers not only about when the bus will arrive, but also about where and when passengers need to get off or change to a different bus in order to reach their destinations. For added convenience, the app automatically adapts navigation to the actual traffic situation, issuing visual and audible warnings if a connection cannot be made. It also suggests an alternative route upon request.



ASEAG customers are always well-informed about all bus arrivals through the "ASEAG mobil" app and numerous dynamic passenger information display boards in the area served.

RESULT

Thanks to the modernisation of the radio system, communication and data-sharing between drivers, vehicles and the control centre have become faster and more effective. The dispatchers at the control centre can view the vehicle positions at any time and ensure that connections can be made even in the event of delays. Thanks to the real-time information passengers receive up-to-date departure times directly via the displays at the bus stops and the app on their smartphones. This service is proving a hit in the Aachen city region, and the digital journey companion has been awarded four out of five stars in the app stores. The comments of a user sum the service up nicely: "A very practical app. Finally, I know where the bus is."

"The new displays and our ASEAG mobil app are further elements in a comprehensive passenger information network. Thanks to the transmission of real-time data, our passengers can plan their journeys more precisely and in a manner suited to their own needs."

Michael Carmincke
CEO ASEAG