

# REALTIME DATA INTEGRATION

Harmonize and process real-time data for travel information systems

**Travelers need information that is up to date. If timetables change at short notice, passengers have to be informed as soon as possible. The HAFAS.realtimehub provides the data base for this. The software enables real-time information from different systems to be integrated, harmonized and made available with virtually no delay.**

Not all transport companies use the same technical system, or the same data formats. Using HAFAS.realtimehub ensures that an uneven database within an association of transport companies does not become a problem. HAFAS.realtimehub consolidates the interfaces of different transport providers, converts available real-time data, and then combines the data in one common data pool. As a result, every transport company can use its preferred data format. Simultaneously, they profit from uniform real-time information from across all modes of transport. HAFAS.realtimehub can also be used for transnational data exchange. Since the system is structured modularly, it can easily be extended.

## INTUITIVE OPERATION

HAFAS.realtimehub offers a web-based, multitenant user interface. The application's functions and buttons are explained by short texts, tooltips or legends. Thus, they are easy to understand for the users. The user interface also allows direct access to the exchanged real-time data.

## HIGH COMPATIBILITY

The data model of the software is structured flexibly. Different data formats can be converted with no loss. Naturally, the target formats need to support the source formats. Common data formats include:

- » SIRI 2.0
- » VDV 453/454/736
- » GTFS RT

The internal data model also allows service conversions (e.g. SIRI ET → VDV 453 DFI).

## FAST PROCESSING SYSTEM

Real-time data information is only valuable if the data is processed quickly. The HAFAS.realtimehub is designed to perform rapidly and minimize processing time.

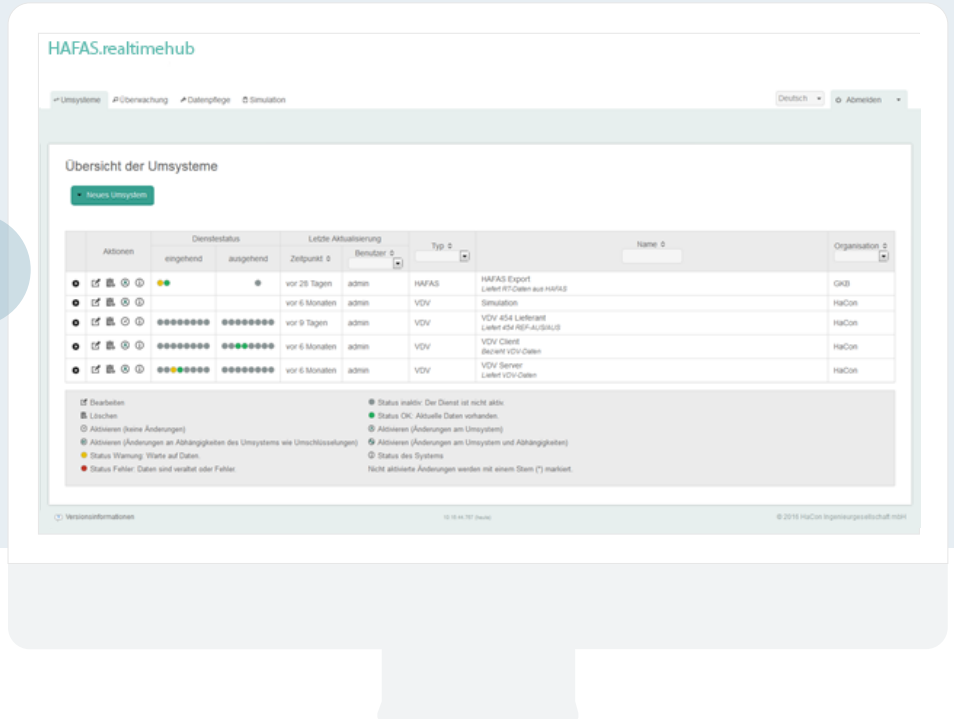


## SELECTED REFERENCES



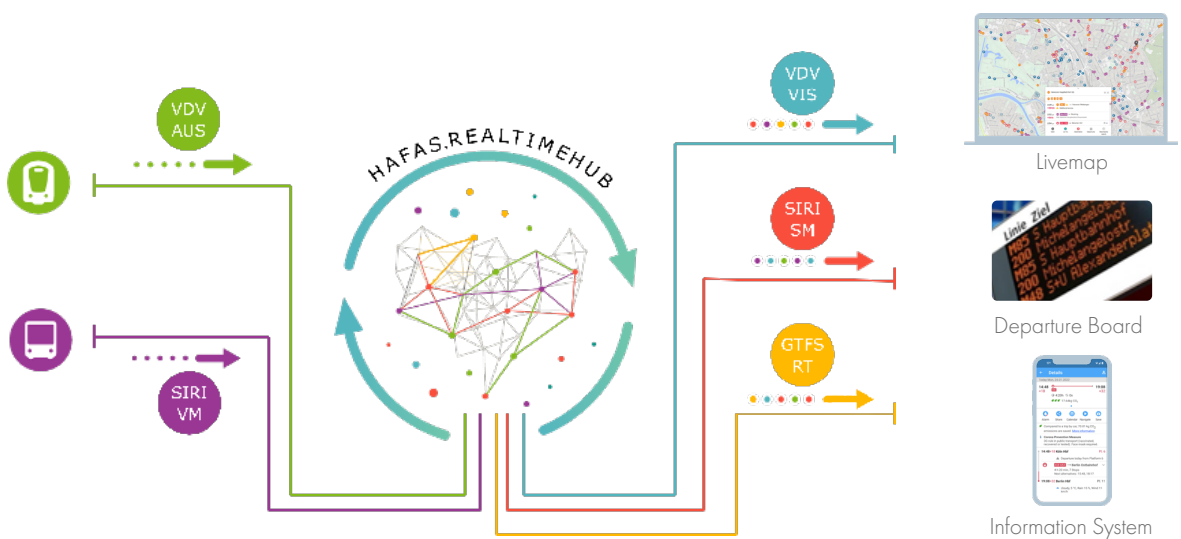
### HAFAS.realtimehub's USER INTERFACE

The navigation bar allows quick and easy access to the important features of the HAFAS.realtimehub. The traffic lights display provides information on the data's current processing state. The user's attention is automatically drawn to outdated or deficient data. The legend explains all the displayed information in a clear, coherent



### FUNCTIONALITY

HAFAS.realtimehub can process real-time information it receives regardless of the data format. Afterwards, the data can easily be read and redisplayed by the information system of each party involved. HAFAS.realtimehub thus acts as a central interface, and minimizes the complexity of data exchange as much as possible.



We make mobility as easy as it gets: For passengers and for transport providers. Our software solutions ensure that passengers get from A to B comfortably and seamlessly – from trip planning, reservations, passenger communication and mobile ticketing to comprehensive MaaS solutions and On-Demand-Services. We support transport providers with fleet, disruption and data management, timetabling and live dispatching tools. We are: Siemens Mobility, Hacon, Sqills, eos.uptrade, Bytemark and Padam Mobility.