

Intermodal Routing and Mapping

HaCon Ingenieurgesellschaft mbH

The Travel and Mobility Portal of the Deutsche Bahn at www.bahn.de offers both timetable and routing information which takes all other means of transportation into account. HaCon's intermodal and multi-modal routing is based on PTV's xServers and offers very fast and user-friendly travel information services.

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The challenge

Arrived safely - but how do I continue?
The extended connection search at www.bahn.de is by no means limited to train connections: since 2000 the Deutsche Bahn has implemented intermodal and multimodal routing, which was developed by HaCon.

This routing method has been changed to map and route applications of the new PTV xServers. HaCon and PTV have been long-time partners and their systems have been used by many other transportation companies, such as Rhein-Main-Verkehrsverbund (www.rmv.de), Stockholm Lokaltrafik, (www.sl.se),

Austrian Railways (www.öbb.at),
Swiss Railways (www.sbb.ch),
Belgium Railways (www.sncb.be),
Polish State Railroad (www.pkp.pl)
and the Southeastern Pennsylvania Transportation Authority (www.septa.com).

The intermodal information system SEPTA developed by the German companies is unique in the United States. Stockholm's Lokaltrafik deploys its own map data (by the company Metria) that is only used for mapping and pedestrian routing. The Deutsche Bahn and the National Belgian Rail SNCB use NAVTEQ data, whereas other providers prefer data by Teleatlas.

The solution

The solution was implemented as a distributed application via XML-interfaces enabling an optimal use of both systems by means of a separate data management. This is how the timetable information system HAFAS and the PTV xServers provide an optimal extension of the travel information of the Deutsche Bahn.



The HaCon Ingenieurgesellschaft has a competent team of over 120 experienced employees who work in the fields of computer science, traffic planning and logistics. They develop solutions to current and future traffic and transportation issues. From the start, HaCon has focussed on traffic planning and has become one of the leading companies in the field of planning, deployment and information systems.

The result

Intermodal routing enables users to choose from different means of transport during route planning. They can choose from train to car or footpath. In addition to train stations they can enter addresses or historic sites as starting point and destination. Furthermore, multimodal routing makes it possible to compare private transport and public transport in terms of duration, costs or environmental friendliness - with often surprising results. For users who opt for PTC technology, this means an acceleration of routing services and the provision of new features for the display of maps. Routes are now displayed on interactive scaleable maps.

More than 80 customers in 18 countries use the timetable information system HAFAS by HaCon. The Windows and Linux compliant PTVxServers can be easily integrated into existing applications and provide reliable services even at a high workload - as for www.bahn.de.

The map request is very fast and needs no plug-ins.

Special feature: Some of the above mentioned providers have combined Internet and mobile technology for some time now. The Deutsche Bahn does so with its Railnavigator, the ÖBB has come up with SCOTTY mobil and the SBB has developed NaviGO. They allow you to access door-to-door travel information via your mobile, including the maps of relevant areas and detailed descriptions of your starting point and destination.

