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Railway Improves Passenger Experience and Generates Passenger Data Using Onboard Infotainment

The Passengera* platform, hosted on Advantech* onboard servers powered by Intel® technologies, delivers uninterrupted Wi-Fi* infotainment and enables new marketing opportunities

At a Glance:

- Improve passenger experience and satisfaction
- Generate valuable customer data
- Designed especially for the transportation vertical

RhB Rhätische Bahn

"Before deploying Passengera, we knew little about our passengers. With Passengera on board, we now know their interests and demographic data, which we can use to better target new promotions."

—Michael Kistler
Head of Marketing
Communications & E-Business, RhB

NEW REVENUE OPPORTUNITIES WITH CONTENT STREAMING

The Passengera* solution provides passengers with an enhanced experience, while generating customer data that enables train operating companies to create new marketing and revenue opportunities.

Industry Overview

Train operating companies have long sought a solution that could stream video and other forms of entertainment to passengers' mobile devices; communicate with passengers on board the train while generating customer data; and create new marketing opportunities using passenger information. The Passengera* platform, built using a railway-compliant Advantech* ITA 5730 server with Intel® technology, enables train operators to realize these goals.

Challenge

The Bernina Express, run by the Rhaetian Railway* (RhB*), serves Alpine tourist destinations. Limited mobile connectivity along the route currently prevents passengers from accessing the Internet on their devices. RhB desired a solution that allowed passengers to use their smart phones and tablets to view specially produced video and audio content—describing scenery and points of interest— presented in sync with the train's location, as determined by a Global Positioning System (GPS). Such a solution would greatly enhance the passenger experience, with the added benefit of generating passenger demographic data.

Solution

The Passengera software is hosted on railway-compliant Advantech onboard servers powered by Intel technology. This solution enables passengers to log in through a web-based app on their personal devices to access GPS-synchronized content over an onboard Wi-Fi* network, which is integrated into Advantech servers.

Passengers receive pop-up information on their mobile devices, notifying them when GPS-synchronized content matches their current location. In addition to entertainment and an interactive travel guide, the Passengera solution provides up-to-the-minute route information including arrival times.

The Passengera solution also enables RhB to remotely manage and update GPS-synchronized content, as well as communicate with passengers and generate opt-in personal information. Furthermore, the solution provides RhB with revenue-producing opportunities through in-app marketing of souvenirs and other items to passengers. Future opportunities include enabling passengers to order meals and beverages served directly to customers in their seats.

Results

Launched in December 2016, the Passengera solution on the Bernina Express has demonstrated value in its first months of service by providing passenger demographic data for developing targeted promotions; demonstrating that high-quality content yields increased viewership, leading to higher opt-in rates and deeper passenger engagement; and increasing customer satisfaction. As the summer season gets underway, more results will become available.

"Intel technology in the Advantech ITA 5730 provides stability, scalability, and a proven platform, enabling Passengera to deliver a highly reliable, stable, and scalable platform."

—Jan Kolář
CEO, Passengera

Enhance Passenger Experience and Gain Customer Insight

Designated a UNESCO World Heritage Site, the views seen from the Bernina Express have changed little since the tracks were first laid in 1908. The highest railway to cross the Alps, the train climbs glaciers before descending past vineyards in Italy. With so many points of interest, passengers often have difficulty establishing what they are seeing and where they are.

Traditional web-based video and audio programming is not GPS-synchronized. Therefore, it cannot help passengers identify their location, nor is it practical due to limited Internet access along the route. RhB required a solution that did not rely on an Internet connection and which would stream GPS-synchronized video and audio, providing passengers with instantaneous information describing their view, their current location, and how long before they reach the next station.

The solution also required a branded web-based app that passengers could use without installing anything; easy operation for passengers and RhB employees; plenty of storage for video and audio files; the ability for passengers to select language; the option for passengers to replay audio and video sections; the capability to communicate with passengers and generate data; and an all-in-one, railway-compliant server with an integrated Wi-Fi access point.

The Right Solution for RhB

Passengera met RhB's requirements. The hardware, software, and an RhB-branded web-based app offer an elegant solution to what had been difficult for the train operator to provide. Passengers, no longer frustrated by not knowing what mountain they are seeing or which of the 196 bridges and 55 tunnels they are passing over or through, derive more enjoyment and satisfaction from their journey.

Streamed over an onboard Wi-Fi connection, RhB's GPS-synchronized video and audio content is available in English, German, Italian, and French, with four more languages planned

Suitable for Train, Metro, and Bus Operators

The Passengera* solution can be used to stream travel and route information, and any type of video, audio, eBook, and other multimedia content. Passengers can opt-in to share their customer data and watch movies, television programs, and sporting events, as well as listen to audio books, play games, or read eBooks on their mobile device. Built using Intel® Core™ i5 processors, the Advantech ITA onboard server platform on which the Passengera solution is hosted meets the practical requirements for transportation applications including trains, buses, cruise ships, and airplanes. The Intel® processors also offer VT-X virtualization support, which enables hosting third-party applications on the Passengera platform.

for the future. In addition to describing the views, passengers receive weather, route, and schedule information, including arrival times and any possible delays.

As passengers opt-in to use the service on their mobile devices, their acceptance enables RhB to communicate with passengers and generate customer usage data. This helps RhB improve customer service as well as introduce new products and services that increase revenue.

RhB Plans to Extend Passengera Solution

The Bernina Express is the first of RhB's trains to provide the Passengera solution, and the first mountain train service worldwide to run such an infotainment platform. Encouraged by favorable passenger response in only its few months of service, along with the business benefits RhB has received, the train operator plans to stream GPS-synchronized video and audio on more of its trains and routes as well as on its Bernina Express Bus.

The passenger preferences and information generated by the Passengera solution equips RhB with data to enhance the passenger experience and to market new products and services. The convergence of improved passenger service, real-time generation of personal data, and the introduction of revenue-generating opportunities makes the Passengera solution a critical component of RhB's marketing efforts.

With web-based apps ubiquitous in other sectors, from banking to entertainment, passengers also expect train operators to offer web-based services to enhance their experience. The Passengera solution, which does not require passengers to install anything on their personal devices, meets the needs of passengers and train operating companies.

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Spotlight on Passengera*

With its innovative approach, Passengera helps train operating companies and other transportation providers build and improve relationships with passengers and open new revenue streams by developing and maintaining infotainment and connected vehicle solutions. Based in Prague, Czech Republic, the company serves the global public transport market by working with transport operators, vehicle manufacturers, and content providers to improve the passenger experience. **passengera.com**