



European railway operator

Boosting rail ticket sales to better compete against low-cost travel providers

Overview

The need

To compete against cut-price airlines and low-cost coach operators, this European rail operator looked to create an engaging sales experience combined with flexible travel and ticketing options.

The solution

The operator enhanced its web and mobile experience by streamlining processing of customer queries, enabling real-time service updates for travelers, and creating flexible journey-planner solutions.

The benefit

Sleek, modern customer interfaces that offer a wider range of travel options have boosted ticket sales by a double-digit percentage, winning revenue back from competitors and strengthening profitability.

This European railway operator manages a very large railway system, which includes several high-speed routes.

Gaining an edge on low-cost carriers

The growth of low-cost, no-frills airlines has created a significant challenge for rail providers. With budget-conscious travelers being lured by slick promotions and cheap deals from these cut-price carriers, how could this European rail operator stand out and convince customers to opt for rail travel?

The operator recognized that the key to regaining ground from its rivals lay in offering customers more attractive prices and promotions, as well as an easier way to book and plan journeys. By developing service offerings that truly stand out and giving travelers greater flexibility, the company hoped to boost ticket sales and steal a march on its competitors.

A spokesperson at the company explains, “We realized that our existing service offerings were out-of-touch with the way that our customers wanted to travel. More and more travellers are turning to the web and mobile channels to book tickets, find information and plan journeys.

The rail operator is now well-positioned to keep its services ahead of the curve, even as traveler choices and expectations evolve. “As budget airlines continue to grow, we wanted to prove to customers that we, as a leading train operator, can offer better, cheaper and more appealing solutions at the touch of a button. IBM helped us achieve this goal,” says a spokesperson.



Solution components

Hardware

- IBM® zEnterprise® EC12

Software

- IBM DB2® for z/OS®
 - IBM DB2 Administration Tool for z/OS
 - IBM DB2 Automation Tool for z/OS
 - IBM DB2 Cloning Tool for z/OS
 - IBM DB2 High Performance Unload
 - IBM DB2 Utilities Suite for z/OS
 - IBM InfoSphere® Change Data Capture for z/OS
 - IBM WebSphere® Application Server for z/OS
 - IBM WebSphere Application Server for Linux on System z®
 - IBM WebSphere DataPower® XC10 Appliance
 - IBM WebSphere Enterprise Service Bus for z/OS
 - IBM WebSphere MQ for z/OS
 - IBM z/OS
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“We saw an opportunity to boost sales and enhance the customer experience by improving the range of services we offered online. Today, customers expect us to provide much more than just tickets—they want information on prices, routes, timetables and destinations at their fingertips, and they also demand a greater variety of travel options and deals that offer better value for money.”

To stand out from the competition and remain the top choice for travel, the rail operator sought to provide customers with the best experience possible, regardless of channel. The company wanted to better engage with its customers by launching more desirable travel options at attractive prices, and to ensure that its offerings are always up-to-date.

Meeting increased demand

The operator relies on a custom-developed application, which handles ticket sales, price updates, promotions and journey planner solutions. Looking to expand its online and mobile offerings, the company wanted to ensure that this business-critical platform could withstand the increased demand and stay available even when tens of thousands of users were connected at once.

The spokesperson states, “To support online and mobile offerings - which we know from experience can generate huge transaction volumes - we needed to ensure the highest possible levels of system availability, performance and security. We chose to implement an entirely IBM-based solution, to take advantage of the most advanced features in terms of data management and security.”

The company has built a robust IT landscape to support top performance and round-the-clock availability for its ticketing application, which runs on IBM® WebSphere® Application Server for z/OS® on an IBM zEnterprise® EC12 mainframe server. At the core of the solution, the company stores its business-critical information, including ticket sales data, on IBM DB2® databases on the same zEC12 server.

All transactions for ticket sales – from online and mobile to sales points at stations and travel agencies – are managed on the EC12 mainframe using IBM WebSphere Application Server for z/OS. Once the tickets have been booked and created within the z/OS environment, payment transactions are pushed to WebSphere Application Server on Linux for System z®, still on the same physical EC12 mainframe, which handles all the necessary security checks and brokers the transactions with external payment processor companies.

“Real-time price, offer and journey updates from the mainframe are key to beating rivals.”

— Spokesperson, European railway operator

When payments are finalized, the tickets are then generated by IBM WebSphere Application Server on z/OS, and sent out to the original purchaser (whether online, or via a ticket office in a train station).

The operator is also leveraging IBM WebSphere Enterprise Service Bus for z/OS and IBM WebSphere MQ for z/OS, which enable it to make reservations, sell and buy tickets from other railway companies in Europe.

To manage this precious data and keep DB2 performing optimally, the company uses the IBM DB2 Utilities Suite for z/OS. The suite provides comprehensive services designed to minimize downtime associated with routine data maintenance, helping to boost availability for the ticketing application.

When the need arises to clone the core database for testing or development processes, the operator uses the powerful IBM DB2 Cloning Tool for z/OS to enable new DB2 instances within minutes – without interrupting the production systems. This ensures that critical business applications can be kept up and running around the clock, giving customers continuous access to services.

For routine database maintenance tasks that cannot be avoided, the company uses IBM DB2 Automation Tool for z/OS to create recurring utility jobs that remove the need for manual intervention. By streamlining utility maintenance, the company can increase availability through shorter, more efficient batch windows that save both staff and system resources, helping boost productivity.

Fast response to customer queries

As use of online and mobile ticketing grows, the transaction volumes on the company’s back-office systems are growing too, with massive numbers of queries, travel packages and promotions flowing through its ticketing application.

Delivering lightning-fast response times and a smooth customer experience is crucial if the operator is to capture and retain customers.

With the size and number of its DB2 databases continuing to grow, the company found it increasingly challenging to effectively manage the growing data volumes. As the company extended its ticketing application, it became more difficult to find time to move data across systems when necessary.

“Once again, IBM proved to be the ideal partner during a tricky phase in our business journey. The market is pushing us to keep pace with constant changes and we simply can’t afford to be held back by a lack of performance or flexibility. With help from IBM, we have succeeded in sharpening our competitive edge.”

— Spokesperson, European railway operator

To guarantee rapid access to crucial data held on its DB2 database, the operator uses IBM DB2 High Performance Unload, which enables it to quickly unload and extract data for movement across enterprise systems. This capability ensures that the company can effectively manage its DB2 data, even as data volumes continue to grow, allowing it to maintain high levels of information availability for the smooth running of the ticketing application.

For fast business intelligence, the operator leverages the IBM DB2 Analytics Accelerator for z/OS appliance, enabling high-speed queries on relational data without the need to move it from the mainframe environment or to manually prepare cubes or data marts.

To provide customers with rapid answers to queries and to boost transaction speeds, the company leverages IBM InfoSphere® Change Data Capture. Using the solution, the company is able to replicate the data from IBM DB2 on z/OS to another instance of IBM DB2 hosted on a distributed environment, in order to perform online queries.

“We can perform queries on data in real-time. This means that even when lots of people are connected to the system and launch a huge amount of queries, our systems are able to display all the different travel options that have been generated according to the user’s preferences, with no delays or errors,” says the spokesperson.

IBM WebSphere DataPower® XC10 Appliance software allows the operator to perform caching of transactions on distributed systems and appliances. “This means that we can deploy the data available in the local cache without having to go back to the main host – a huge saving of time and effort,” comments the spokesperson.

Speeding towards impressive results

The company’s new strategy revolves around creating enticing travel solutions with real-time pricing and promotions, and round-the-clock availability for mobile apps and online access. The project has already helped to boost ticket sales by a double-digit percentage, and the company expects this figure to keep on growing.

The ability to process an ever-increasing number of transactions is achieved through WebSphere front-end servers and IBM WebSphere Application Server for z/OS, which are key in enabling the operator to scale up to meet increased demand.

The spokesperson concludes, “Real-time pricing, offers and journey updates from the mainframe are key to beating rivals offering constant price changes and journey deals. Once again, IBM proved to be the ideal partner during a tricky phase in our business journey. The market is pushing us to keep pace with constant changes and we simply can’t afford to be held back by a lack of performance or flexibility. With help from IBM, we have succeeded in sharpening our competitive edge.”

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IBM Corporation
Software Group
Route 100 Somers, NY 10589

Produced in the United States of America
August 2014

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