

Pankade Kaardikeskus achieves rapid, low-cost integration with IBM WebSphere MQ



Overview

■ The Challenge

As the payment service provider for Estonia's banks, Pankade Kaardikeskus (PKK) needs its IT systems to be able to communicate effectively with international credit card organisations. When Mastercard Europe decided to migrate from EPS-Net to the Banknet network, PKK's systems had to be ready.

■ The Solution

PKK worked with Aktors (www.aktors.ee), an IBM Business Partner, to create a gateway based on IBM WebSphere MQ. The gateway provides an interface between Banknet and the company's legacy transaction processing systems.

■ Key Benefits

- WebSphere MQ works seamlessly with PKK's existing IT landscape: there has been no need for expensive redevelopment of legacy systems.
- As a standards-based platform, WebSphere MQ can be easily customised to meet future requirements.
- Aktors completed the implementation within just five months, avoiding financial penalties for missing Mastercard's deadline.



“The Aktors consultants have vast experience of financial sector IT projects and know how to work according to the unique requirements of the industry. Their expertise was vital in the design and deployment of this solution.”

Paavo Sild
Head of IT Department
PKK

Key Components

- IBM WebSphere MQ

Pankade Kaardikeskus AS (PKK) was established in 1993 by the Estonian banking industry, to provide infrastructure and services around electronic payments and credit/debit cards. The company works with banks, retailers and other companies to develop Estonia's ATM and point-of-sale infrastructure, as well as processing national and international electronic payments. The company employs 30 people.

One of the company's most important responsibilities is to act as a mediator between the Estonian banks and major international credit card organisations such as American Express, VISA and Mastercard. All payments made in Estonia with foreign cards are routed through PKK's systems before being passed into the appropriate networks for processing.

“Each of the major credit card companies has its own network, and although they all follow ISO 8583 standards, each network has its own message specification,” explains Paavo Sild, Head of the IT Department at PKK. “Mastercard decided to migrate its European operations, which previously used a network called EPS-Net, to the Banknet network that it uses elsewhere. To enable banks in Estonia to communicate with Banknet, we had to make some changes.”

Minimising disruption

PKK uses a complex set of specialised applications for transaction processing – some have been developed in-house, while others are outsourced to third parties. Several of its legacy systems date back to 1994, and developing them to meet new requirements can be a lengthy and expensive process. When PKK started planning how to make its systems compatible with Banknet, the key challenge was to find a solution that could be deployed quickly and cost-effectively, keeping the need for legacy development to a minimum.

“We asked for advice from Aktors, an IT consulting company that had often helped us with important projects in the past,” says Paavo Sild. “The Aktors consultants have vast experience of financial sector IT projects and know how to work according to the requirements of the industry. Their expertise was vital in the design and deployment of this solution.”

Aktors advised implementing a messaging gateway that would translate between the standards used by Banknet and PKK's existing systems. As the underlying technology platform for this gateway, Aktors recommended IBM WebSphere MQ.

Rapid, low-cost deployment

“The major benefit of building a gateway on WebSphere MQ is that it gives us a standards-based platform that is easy to develop and extend,” explains Paavo Sild. “Instead of retrofitting our legacy applications to make them compatible with Banknet, which would have been expensive and time-consuming, we have been able to deploy a new solution from scratch within just five months, without the need for significant development work.”

Delivering the solution quickly was vitally important: Mastercard had set a strict deadline for moving to Banknet, with penalties for non-compliance. Thanks to the ease of deploying the WebSphere MQ solution and the dedication of the Aktors and PKK teams, the project was completed well in advance of the deadline.

Ongoing payback

Going forward, the versatility of the WebSphere solution should give PKK greater agility in terms of meeting transaction processing requirements. For example, if PKK's infrastructure should change in future, the company should be able to adapt its WebSphere MQ environment, rather than requiring major modifications to back-end systems. This should help to reduce IT maintenance and development costs in the future.

"Of course, as well as the Mastercard gateway, we also have gateways to the networks of several other credit card organisations," comments Paavo Sild. "With the WebSphere MQ solution from Aktors, we have created a messaging module that could potentially be adapted and reused in other gateway projects in the future – again, saving time and costs."

Simple, flexible gateway

The next step for PKK is to migrate the WebSphere solution from a clustered server installation onto a more cost-effective distributed infrastructure.

"Performance isn't a real issue for the current solution: only about 10 percent of overall traffic goes via gateways, and WebSphere MQ is more than capable of handling this," says Paavo Sild. "The change in hardware is partly motivated by cost-efficiency, and partly by a desire to maximise availability through improving the reliability and fault-tolerance."

He concludes: "By providing a simple, flexible gateway for communication with Mastercard's payment processing network, IBM WebSphere MQ is helping us deliver a service that makes international payments easy and convenient for companies and individuals across Estonia. Aktors has proven its ability to offer solutions that deliver genuine business value for companies in the financial sector."

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*Paavo Sild
Head of IT Department
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