IBM

Cashferium helps retailers and banks cut costs by keeping cash flow local.

Overview

Business Challenge

■ *With banks and retailers spending some €50 billion each year on the handling of cash, the incentive for reducing the amount of cash in transit – one of the main sources of this cost – is powerful. However, with banks and retailers separated by a mountain of disparate processes and systems, the goal of a shorter cash cycle has yet to be realized.*

Solution

■ *Startup Cashferium created a whole new process framework for the exchange of cash between retailers, banks and their ATMs. Cashferium then engaged IBM to help define and optimize these processes, and to create a secure, flexible platform for delivering – and continually adapting – its service.*

Key Benefits

• *Up to 50 percent reduction in the cost of cash processing for retailers and banks*

• *Estimated total savings of €250,000 per site deployed*

• *Improved security for mall-based retailers*

Based in the Netherlands, Cashferium addresses the efficiency and safety of cash handling in today's flow of cash between retailers, banks and consumers. The core of its business model is the "recycling" of surplus banknotes of retailers into a local ATM, thereby minimizing cash transport from local bank branches and restocking of ATMs.

One of the biggest changes in the world's retail economy has been the vast expansion in the role of alternative payment mechanisms. For reasons ranging from convenience to habit to need, more consumers are opting for plastic than ever before. But even in the face of this sweeping trend, traditional cash payment is – and is expected to remain – the lifeblood of the world's retail activity.

" When you have a big idea, you need to find a partner who can also think big, and – just as important – deliver big. IBM understood our goals better than anyone and helped us to articulate a solution for making it a reality."

–Ton van Schie, CEO, Cashferium

Transforming cash handling with breakthrough process improvements

Business Benefits

- Up to 50 percent reduction in the cost of cash processing for retailers and banks

- Estimated total savings of €250,000 per site deployed

- Ability for retailers and banks to shift their resource focus from cost centers to value-added operations

- Improved security for mall-based retailers

"The process as a whole is now far more efficient because banks and retailers can focus on the parts of their business that drive profitability."

– Ton van Schie

For that reason, the handling and processing of cash will remain an important operational priority for the retailers that receive it, and the banks that keep it circulating. Few consumers think of what happens to money when it leaves their hands, or where it has been before it comes out of an ATM. For retailers and banks, however, it's an issue that has a major impact on their costs and profitability, and is thus the focus of continual efforts to improve efficiency. The fact that cash is a physical medium of exchange – one that needs to be picked up, counted, checked, protected and transported from each place of business – is the main reason that inefficient practices have persisted for as long as they have.

On another level, the inefficiency of retail cash handling processes can be viewed as a natural outcome of the fact that they follow centralized approaches in an increasingly decentralized world. One of the basic requirements for each retailer within a mall is to securely transport cash on the premises to a distant bank or cash center for deposit. The high costs associated with this process are but one dimension of the problem. The other is the risk of physical harm and economic loss, since store employees are sometimes forced to transport large amounts of cash. The irony is that this same cash may make a reverse trip from the bank to an ATM near the retailer, as part of the bank's equally costly requirement to replenish them from a central location. The fact is that recirculating cash follows a needlessly roundabout path that imposes cost on retailers, banks and the financial system as a whole by increasing the amount of cash-in-transit, or CIT.

Circulatory troubles

The most direct way of shortening and simplifying the flow of cash between retailers, banks and ATMs would be to recirculate it locally. While elegant in theory, a combination of institutional and technological factors has kept the idea from becoming reality. One major barrier is the inherent complexity of the processes that govern the flow, which has made it hard for retailers and banks to find a common ground for process improvements. Another barrier has been a lack of standardized technology to support the transformation of the cash flow process.

In Europe, however, that tide has begun to turn. With much of Europe standardizing on the euro, the incentive for localization has grown even stronger. But the real force for change has come from a combination of breakthrough ideas and enabling technology. In the Netherlands, a small team steeped in retail and banking experience translated their knowledge into a revolutionary process that has made the vision of local cash recycling a concrete reality. The company that group became, Cashferium (www.cashferium.com), saw from the beginning that success in the complicated payment space would require the right mix of

its own core expertise and partners who shared its vision. On the banking side, it partnered with global giant ABN AMRO, which saw the opportunity to reduce the cost of cash handling. On the technology side, Cashferium needed a provider that could not only meet demanding technical and security challenges, but also provide a commitment to success backed up by whatever resources were required. The company it selected was IBM.

The physical core of Cashferium's service is secured locations in malls, known as Cash Kiosks,® where retailers deposit their stores' cash receipts at the end of the day. With security absolutely essential to the success of the Cashferium solution, IBM designed a robust security and communications infrastructure that provided customers with Web-based access to the system and enabled Cashferium to monitor and manage its Cash Kiosks remotely. To make a drop-off at the Cash Kiosk, retail customers can use a secure portal to schedule a reservation, with the information automatically registered and stored at Cashferium's operations control center. When customers arrive at the Cash Kiosk to make a scheduled deposit, the first level of security requires them to scan a badge with encoded identification information that is automatically checked against stored reservation data, including the scheduled time of the appointment. If the customer is granted access, the Cash Kiosk then applies a second level of authentication that uses a biometric interface to validate the initial check. Upon final approval, the customer deposits funds at the Cash Kiosk. The recycling process comes full circle when this cash is made available to the ATM situated on the outside of the Cash Kiosk and to local ATMs within the mall. Additional services include rolled coin distribution and a Security Host.

Focus on flexibility
In designing the architecture of the Cashferium solution, IBM Software Group's central aim was to maximize its security and manageability, while at the same time facilitating the long-term expansion of the solution by making it as flexible and architecturally efficient as possible. The team's approach was to use IBM WebSphere® Business Modeler to model critical business processes in the Cashferium solution and then design a modular architecture that employed Web services, using IBM WebSphere Process Server to integrate and automate them. By designing a service oriented architecture (SOA) solution, IBM ensured Cashferium the flexibility it would need to evolve its service rapidly by giving it the means to adapt its processes on-the-fly. Running on the IBM System p™ platform, the solution stores all customer and transaction data within a secure, centralized IBM DB2® database. Other key elements of the solution include IBM WebSphere Portal, which was used to create the customer interface, as well as a range of IBM Rational® software products to develop and deploy the solution.

Key Components

Software

- IBM WebSphere Application Server
- IBM WebSphere Process Server
- IBM WebSphere Integration Developer
- IBM WebSphere Portal
- IBM WebSphere Business Modeler
- IBM Rational Software Architect
- IBM Rational Team Unifying platform
- IBM Rational Portfolio Manager
- IBM DB2

Hardware

- IBM System p

Services

- IBM Software Group Services

Business Partner

- e-office (www.e-office.com)
- b+p solutions (www.bpsolutions.nl)
- infosupport (www.infosupport.nl)

Time frame

- Solution design: 6 months
- Rollout: In progress

Why it matters

Drawing on its cash-handling expertise, Cashferium pioneered a disruptive process that establishes a new path for cash to flow between retailers and banks based on the local recycling of surplus cash from retailers to ATMs. By drastically reducing the amount of cash in transit, the solution provides lower costs and greater security for banks and retailers.

With five sites deployed in Holland and 22 more in the works, the Cashferium solution has more than lived up to its promise of being a "win-win" solution, notes CEO Ton van Schie. "The Cashferium solution saves banks the cost of handling money, while retailers get better security at a lower price," explains van Schie. "The process as a whole is now far more efficient because banks and retailers can focus on the parts of their business that drive profitability." Based on what customers have experienced so far, van Schie expects transaction costs to fall by as much as 50 percent for the companies using the local cash recycling solution, representing an average savings of €250,000 for each Cash Kiosk deployed. While it's hard to put a monetary figure on improved security, the security enabled by the Cashferium solution represents a significant improvement over traditional cash delivery and pickup practices.

Making big ideas work

Cashferium sees its decision to rely on a group of strong and trustworthy partners as a major reason for its success. While the solution's process improvement is what really makes it stand out as "disruptive" in the way banks and retailers handle cash, van Schie sees the technology underpinning this business model as absolutely essential to its successful execution. "When you have a big idea, you need to find a partner who can also think big, and – just as important – deliver big," says van Schie. "IBM understood our goals better than anyone and helped us to articulate a solution for making it a reality. Throughout the whole process, we felt confident that IBM would do everything in its power to help us succeed."

For more information

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