



Pilot project with good prospects

Together with Wincor Nixdorf, Shell Deutschland Oil GmbH is testing ways of rationalizing cash handling at gas stations while at the same time minimizing the risk of loss. Pilot projects so far have shown highly promising results.

Cash can be tempting. Almost every day, one of the approximately 2,200 Shell gas stations in Germany is robbed. Far less spectacular but causing far greater damage in absolute terms is the loss of cash through internal pilfering at gas stations by the company's own employees. The exact level is not known but of the average 5 percent inventory discrepancies at German gas stations, one quarter of these are attributable to dishonest personnel, according to estimates.

Cash handling is expensive, largely because it consumes time. Time-consuming tasks include the cash procedure itself, the correct handover of the till when changing shifts, counting and sorting notes and coins, and packing and booking cash in the back-office. On top of these tasks come the transport of cash to the bank and replenishing ATMs. Costs are another issue: many banks now require fees for cash deposits. And if, to crown it all, the ATM or bank clerk discovers and rejects counterfeit notes, this can add significantly to operating costs.

For all these reasons, Shell has been studying ways to optimize cash handling and cash security at gas stations. To this end, the oil company has joined two other companies to participate in a pilot project: security service provider Heros Group and Wincor Nixdorf as technology partner (see box). After making initial contact in 2003, the companies signed a letter of intent at the end of 2004 in which they agreed to details including the timeframe for the pilot trial. Says Marcel Maderyc, Finance Manager at Deutsche Shell and head of the "Cash Automation" project: "There are plenty of normal payout devices

around. What we wanted was a closed recycling system with terminals that could satisfy our specific requirements in terms of size, speed, capacity and security and that could be easily integrated into the POS and materials management systems used at the Shell stations."

These requirements posed a particular challenge for Wincor Nixdorf. Within six months, however, the German IT company was able to deliver a system that satisfied each requirement. The system was highly compact, allowing it to be easily integrated into the typically cramped POS positions in gas stations. It was robust and able to handle up to 1,000 payment transactions per day at each POS position. Moreover, the system was easy to operate for the customer and easy to manage for the cashier and security firm. And, lastly, it could be adapted to the different IT components of gas station operators thanks to its open system architecture.

Testing at three gas stations

Since November 2005, three Shell gas station operators in Berlin, Hamburg and Kassel have been testing the cash recycling system. Two ATMs are used in each station. The iCash 15 coin module is placed on the front of the cashier counter facing customers who can throw any number of uncounted coins into an input container; these are registered by the device. The module also acts as a change dispenser.

The iCash 50 note module is placed at the back of the counter inaccessible to customers. If customers want to pay with notes, they must be handed directly to the cashier who

then feeds them into the note module. This procedure was deliberately chosen by the project team. "Many customers find it very difficult to enter banknotes in an ATM, and we wanted to avoid this," explains Dirk Schroers, Shell manager and fellow member of the "Cash Automation" project team.

The entire cash flow is processed by two ATMs. The cash cycle is closed and the system effectively manages itself. The till is empty except if a small cash amount is kept in it for conducting specific transactions (for example, changing money for customers). The transactions are posted automatically via interfaces to the merchandise management system. Wincor Nixdorf uses the "Retail Cash Management" (RCM) software specially developed for this task. The ATMs can only be opened by Heros, which collects the cash from the machines each day and transports it to the bank. ▶



The iCash 50 module for depositing banknotes.

Practical check

Does the newly developed technology pass the practical test? How do employees and customers react? What rationalization effects can be generated for the gas station operator? Does the system offer an acceptable return on investment? Even if the partners are still unable to answer all these questions as part of the "Proof of Concept" process, they can comment on how the technology has performed so far on the basis of five test criteria.

Technology. "There were some minor problems with the banknote input system to begin with," says Rüdiger Otto, one of the pilot partners who operates three Shell gas stations in Berlin. Three or four times a day, the ATM refused to accept perfectly good banknotes. The problem was quickly resolved, and since then the error quota has been close to zero. Fine adjustments were also made to the system interfaces to the merchandise management. Overall, the cash recycling system has functioned "largely fault-free and thus highly sat-

isfactorily," says Shell manager Marcel Maderyc

Security. According to internal Shell figures, average POS terminal discrepancies per station per year amount to about €2,000. Automation can put an end to this problem: misappropriation of cash and fraudulent tricks by employees are impossible due to the closed cash cycle, as well as careless mistakes such as handing back the wrong change. The system also offers total security in cash handling. Cash no longer needs to be transported from the POS terminal to the back office, stored, counted and put into bundles, and then taken to the bank, with all the risks that these processes entail.

The devices also have an integrated checking system, which prevents acceptance of counterfeit money. Maderyc expects the risk of hold-ups will decrease drastically if, as he points out, it is "actively communicated and becomes known in the relevant circles that cash is not stored in the back-office and that

the cashier at the gas station does not have any or only small amounts of cash in the till."

Employees. The handling of the ATMs creates no difficulties whatsoever for employees. Fears of some employees that the technology might lead to jobs being cut due to rationalization were quickly allayed. On the contrary, the pilot tests have shown that the additional time available can be used actively by employees to chat with customers. Says Hamburg Shell partner Ahmet Geyik: "Cashiers will have to become friendly and competent salespeople." Berlin station operator Rüdiger Otto also wants his employees to devote more time to sales and customer service (see interview).

Customers. All three Shell pilot partners reported that most customers had no problems using the automatic coin machines. A representative customer survey commissioned by Shell is expected to endorse this first impression and clarify whether the solution is seen



Cash handling is fast and secure: an employee of the security transport company opens the door of the safe, removes the filled cash cassette and replaces it with an empty one. The till drawer remains empty, offering no opportunities for thieves or robbers.



as an improvement to customer service, or whether customers have any reservations about it and, if so, how these can be eliminated.

Rationalization. The focus of rationalization is on reducing working time. Handing over the till, according to Shell partner Rüdiger Otto, previously required an average 10 minutes, but now takes only 10 seconds. And in a three-shift operation, this means a saving of 30 minutes a day per POS terminal. What's more, the daily till balancing process is a thing of the past, as are arguments with customers about receiving the wrong change. The time required for counting, sorting, bundling and booking the cash in the back office is saved completely, as well as the time for transporting the cash to the bank. The savings are substantial, particularly for operators who lease more than one station and have to devote their attention to more important tasks.

The new technology offers other concrete savings as well. These include the cash ►

Partners and technology

Three leading companies in their fields have got together for the "Cash Automation" pilot project at gas stations.

- Royal Dutch Shell PLC is one of the world's largest oil companies. Shell in Germany is an energy and chemicals company with divisions for oil refining and distribution, natural gas/oil production, natural gas distribution and electricity trading as well as renewable forms of energy. With a nationwide network of about 2,200 filling stations, Shell has a nationwide presence in Germany. Heating oil and other mineral oil products are sold all over the country through a network of branches and proprietary dealers, including the subsidiary Shell Direct GmbH.
- The Heros Group is one of the leading logistics companies in Europe in the field of security transport. The company has over 3,000 employees and more than 44 branches in Germany and in nine other countries in Europe. It offers a wide portfolio of services covering every aspect of security.
- The "Cash Automation" pilot project was implemented at the gas stations operated by Shell partners Rüdiger Otto (Berlin), Ahmet Geyik (Hamburg) and Sebastian Szoldra (Kassel).



The project team: Christiane Kommer, Manager of Controlling and Loss Prevention at Shell; Peter Schwanz, Managing Director at Heros; Marcel Maderyc, Finance Manager and Project Director at Shell; Michael Schulz, Logistics Manager at Heros; Michael Verstege and René Olschewski, Security Transportation employees at Heros; Gerhard Schulz, Account Manager Shell at Wincor Nixdorf; Manfred Kraienhorst, Director of Sales Center at Wincor Nixdorf; Thomas Kamloth, Retail IT Manager at Shell; and Dirk Schroers, Finance Manager at Shell.

deposit fees amounting to over €10 per deposit at many banks. Insurance premiums for robbery, burglary and theft policies can also be renegotiated and, according to manager Schroers, the collateral that Shell requires from its partners (since ultimately they sell on behalf of Shell) “can be reduced by up to 50 percent.”

Early ROI – a real possibility

With no POS discrepancies and no cash pilfering by employees, and with tangible and quantifiable cost benefits, manager Dirk Schroers estimates annual savings of between €3,000 and €4,000 per station. Other savings include the time saved by employees and station operators due to the complete elimination of cash handling.

These savings, of course, are countered by the cost of leasing the ATMs. The goal,

says Schroers, is “to work totally cost neutrally.” In other words, the gas station operator should be able to pay the leasing rates out of the concrete cost savings in the very first year.

“Soft benefits” are not taken into account because there is no way of calculating them. These include objective security and the subjective feeling of safety of the partners and their employees, a modern, progressive image, more intensive customer contact and improved customer service, active additional selling and hence ultimately increased revenues. Although these soft benefits can’t be included in a return on investment analysis, in practice, says manager Marcel Maderyc, they offer Shell partners a huge opportunity “to implement a convenience concept that can provide comprehensive service in a fast, friendly and competent way.” ■



The coin module iCash 15 takes unsorted change in all amounts, counts it and enters the data into the sales transaction. Return change is provided in the center compartment.

More time to devote to selling

Rüdiger Otto, Shell partner with three gas stations in Berlin, shares his initial experiences with the cash automation pilot project.

Does the technology function perfectly?

There were some isolated problems with the note input system to begin with. That problem was soon fixed and the error rate is now more or less zero.

How do customers react?

Almost entirely positively. It’s noticeable that the coin deposit machine, in particular, seems to arouse the gaming instinct in customers. Many use the input terminal to get rid of their loose change. In individual cases, we’ve had to explain to staff that automation was intended to improve customer service and not cause any job cuts.

Do employees see it the same way?

From the very beginning, I stressed that the time saved should be used actively for communication with customers. We only have trained retail salespeople working on the till. I don’t view them just as cashiers. Their job in the future will be to communicate more with customers, actively sell products, draw attention to special offers and promote our customer loyalty program.

Are you pleased with the system, on balance?

Although I can’t put a precise figure on it at the moment, the time savings, especially in the back-office and for cash transport, are enormous. I was personally skeptical at the beginning but quickly became a major advocate of the system. Although it’s still a pilot project, I would be glad to keep the machines. Of course, once the prices are set and the advantages are more or less quantified, I’ll have to figure out whether it pays off for me.