
INTRODUCTION

to Cash Flow Automation

1 Introduction to Cash Flow Automation

In this chapter we will discuss cash flow automation and its various aspects. We will also define its main concepts. Our perspective is that of the most important party in the process: the company or other organisation producing and handling the cash flow.

What do we mean when we talk about cash flow automation?

"It's about corporations managing their cash in the most effective way."

"Cash flow automation is an efficient process for managing invoices and payments."

"It's simply the automation of handling incoming and outgoing payments as well as liquidity forecasting."

"For me, cash flow automation is about integration, internally and externally. This is typically referred to as STP (straight-through-processing) in terms of treasury and cash management."

"It's less about automation and more about managing liquidity: how can I gather information, analyse it, make the best decisions based on it, and have the information at the right time to make the right investments?"

"Cash flow automation is the process of understanding, defining and automating all steps from order to cash and from purchase to payment in a time line of events in view of efficiently managing the cash flow and the related information."

What do we mean when we talk about cash flow automation? It depends on who you ask. If you ask a group's IT department, the reply will be a description of data-communication links, system interfaces, standards, or lack of them, encryption protocols and access rights. If you ask someone who works in a bank, they will probably provide you with a description of the cash management services provided by the bank. And if you ask your own company's financial department, they will probably tell you about purchase and sales ledgers. It is not likely that many of these people will use the term *cash flow automation*; they will most likely talk about cash management and some of its specific components instead.

However, we will mainly discuss cash *flow* and its automation in this chapter. But why? It is because the word *flow* describes and emphasizes the movement of cash and,

in particular, the related information in an organisation. Just like a stream, it flows along in its channel, only slowing down occasionally – or in the case of cash flow, when an invoice is swiftly circulated for checking and approval – and then continues through the bank to become part of the cash flow of another organisation.

In this book, our understanding of cash flow automation is as follows: cash flow automation is the seamless integration of an organisation's countless systems – including invoice management, liquidity management and treasury management systems – with the systems of banks. Put simply, it is the automation of handling incoming and outgoing payments as well as liquidity forecasting.

Why do we need cash flow automation?

Why do we need cash flow automation? For the very same reasons that we need automation in the manufacturing of products: to handle things more efficiently.

For decades companies have automated their various processes – just look at enterprise resource planning and various production systems. If you take the average dairy company there are countless machines and systems that are responsible for moving thousands of packs of butter up the production line and only the faulty ones are touched by human hand. From the production line they travel onwards to intermediate storage – once again, automatically – where they are packed and shelved by robots. Naturally, the orders are in electronic format and based on those orders, the products required are then automatically picked and delivered to the customers.

All in all, the idea is always the *automatic handling* of time- and resource-consuming *masses* and human intervention is an exception. The more automated that the handling of masses can be made, the fewer phases of manual work and less human involvement is needed in the process.

The problem with finance is that the financial processes are not visible in the same way as manufacturing processes as there are no truck-loads of products travelling around – apart from paper invoices and other paper documents being carried from desk to desk. It is only human to start dealing with the easier matters first, i.e. the concrete and visible areas in the organisation. It's no wonder that one of the first steps in modernising cash flow processes is often the automating of the purchase invoices.

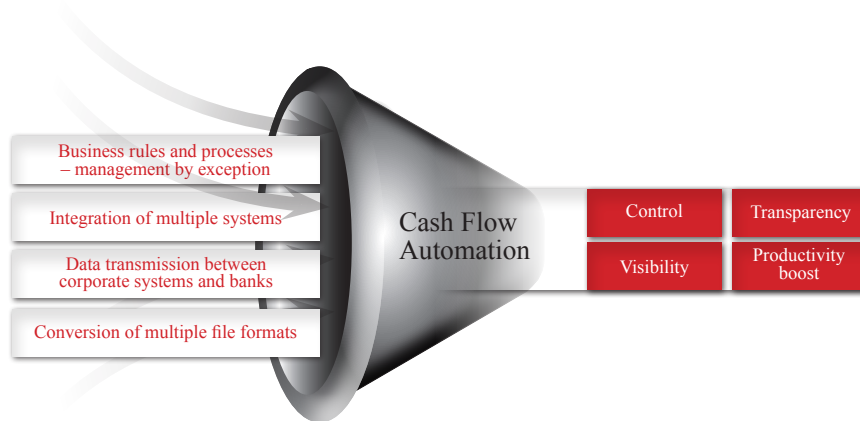
If we take the dairy company case as an example of *proper* automation, how would financial processes fit in with this? Let's take the payments process. If a company regularly sends thousands of payments to a bank, the only way to do this efficiently would be to automate the whole process. The tens or hundreds of thousands of payments should automatically leave the company, flow to various banks via automatic bank connections and only the rejected payments would be handled manually. And when human intervention is needed, you ask: why did it go wrong? If your cash flow is unusually small or unusually big, or a certain type of fault often occurs, that is when you should spend extra time analysing it more carefully. No intelligent company should spend time on handling large volumes of data manually, when this can be automated.

And when you've got started with automating the payment process – or the process that is most vital to you – then you can move on to benefiting from automation by integrating your processes to get accurate, reliable information about the cash flows throughout the organisation. When you have this information, decision-making can be based on knowing and not just presuming.

Main driver: the need to centralise

This brings us to the core of the matter: in international, fast-moving business, companies need to further centralise the steering of financial processes and decision-making.

Global competition has made financial systems even more important for an organisation's success. It is no longer enough for a system to be efficient and reliable in its operative tasks. Financial departments must be able to use these systems to produce increasingly high-quality, up-to-date – real time if possible – and analysed information for financial and corporate management decision-making. This is the main reason for the automation of financial processes.



A tool for business development. Cash flow automation is not only about making financial management more efficient; it is also an important tool for business development. Corporate management will always have real-time information and forecasts of the company's cash position at its disposal when making decisions.

Most organisations, whether they are big or small, public or private, seek swift, straight-through processes. This can be achieved with specialised standard-compliant systems.

By centralising cash flow in treasuries, payment factories and service centres, an organisation can manage all of its cash flow. This allows it to ensure that there is money where and when it is needed and that the money can be used to produce a profit when it is not needed elsewhere.

Centralisation also increases the flexibility of cash management and financing and prevents partial optimisation that is unsuitable for the big picture. Carried out with modern tools, it will provide completely new methods of streamlining cash processes to benefit the entire organisation and its divisions or subsidiaries. Uniform methods that follow best practices will also increase the safety of cash flow, both technical and personal. Centralised cash management requires fewer resources, i.e. systems, staff and premises, and this will lower cash management expenses.

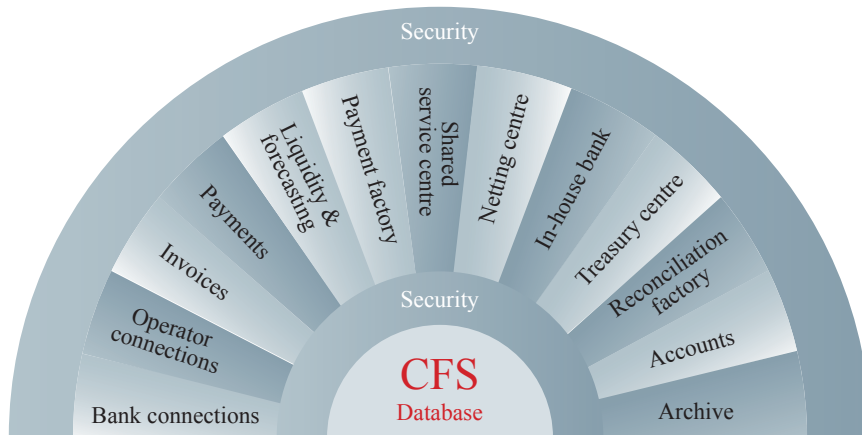
The benefits of automating cash flows

Cash flow centralisation requires automation. Automation, however, does not require centralisation and is equally useful in the cash flow management of a single company. The benefits presented below apply equally to a single, structurally simple company as well as a complex corporate structure.

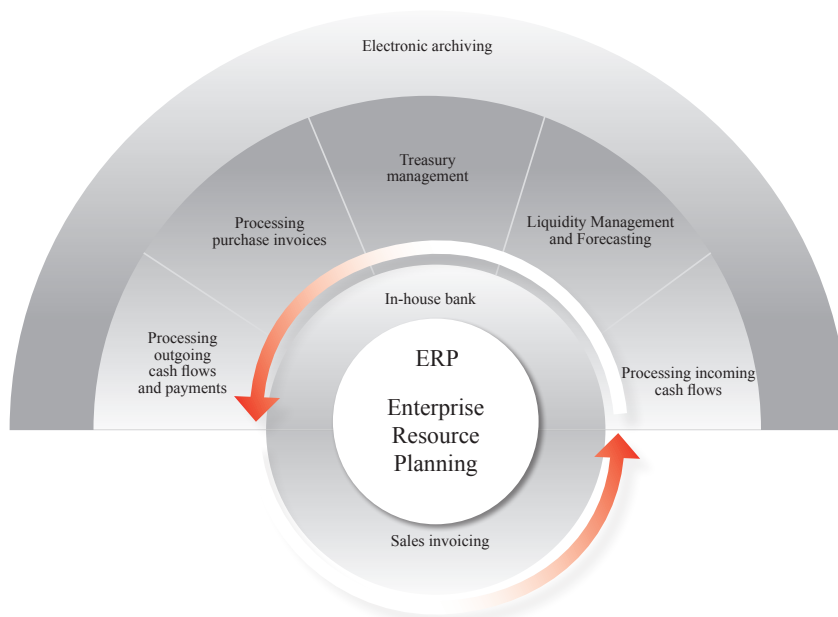
Strategic benefits include the opportunity to transform *data into information* practically in real time to serve various actors in an organisation. The management is always in control of the whole cash flow, both at the corporate level and with regard to each single division or subsidiary. Even fast reactions can be based on accurate information and analyses. In addition to short-term liquidity forecasting, liquidity management as a whole will become easier and its quality will improve. As short- and long-term forecasts improve, financing needs will not come as expensive surprises and the treasury will have *more time* to organise financing on better terms. Another strategic benefit is an improved bargaining position with banks when volumes grow as a result of centralisation.

Operative benefits include savings in time and money. Managing internal corporate cash traffic in an internal bank and making external payments centrally through one or more bank accounts can yield huge savings in *transaction costs*. When the number of banks can be reduced from dozens to two or three, and matters related to the banking relationship are taken care of centrally, financial managers will have more time for more productive tasks.

Elimination of manual steps will speed up information flow and processing and reduce mistakes and the time spent sorting them out. Human resources are freed up from *routine tasks* and can be used on analysis and other tasks instead. Eliminating manual steps will also reduce the need for personnel to carry out routine work. In an ageing Europe, a large number of white-collar staff will retire in the coming years, and automation will provide a solution for the resulting challenges for recruitment.



Modern cash flow system. All the data related to cash flows will accumulate in a single database that is used and contributed to by all the sectors in the cash flow system (CFS). The data is automatically updated, which means that all functions will have the latest information on all corporate cash flows at their disposal regardless of how the financial management has been organised or the physical location of the divisions.



Integration of real process and cash process systems. The integration of the cash process and real process systems will revolutionise the organisation's cash management. With integration, invoicing and payment information produced by ERP systems as well as other information on cash flows will be automatically available for cash process systems regardless of the file format or the users' geographic location. Integration enables a company to use electronic processes and automation just the way it needs to.

The finance function: keeping on top of things

There are some simple questions finance organisations – and particularly CFOs – need to ask themselves. What will you do when the middle-aged finance employees retire? What will you do when you're given less resources but you need to do more? What is your response, when top management requires you to proactively support new business ventures and find money – fast? Are you the bottleneck with all the bean-counting and partial cost optimisation when you should be analysing, producing information for decision making and ready to give that much needed input for the big picture and support the company's competitiveness?

Finance departments have become leaner during the last few years. Where ten years ago there were 50 people, there are now maybe ten, and where there were ten, there are now five or even less, even though the amount of work has grown significantly at the same time. The development clock will not turn back, that's for sure. Global competition and an ageing population in countries with a high standard of living will provide a challenge for all organisations – private companies as well as the public sector – to improve their productivity and efficiency. We will need to achieve more with less.

The finance department, like every other department in the company, is there to contribute to the success of the company. A proactive finance function provides a good level of service and is prepared to act on opportunities. A finance function that is on top of things will always be able to answer questions such as: “How much money do we have?”, “How much money will we get or have to pay out?” and “How much money can we afford to lose?”

Modern, specialised systems, like a cash flow system with high level of integration, can make all this possible. For innovative finance executives, such modern tools will provide a means to develop operations, to serve business requirements and to meet the needs of the corporation, and will not be based on rigid systems that are cumbersome to use.

International business will provide financial management with a new role. Today, financial professionals are expected to know more about the company's business and provide services with their expertise much more directly than before, at the level of production and sales. They must be in contact with customers, and assess customer-specific credit risks, deal-specific currency risks and the impact of raw material costs on the company's product prices. Their new role enables financial professionals to have an even greater impact on the organisation's profitability. When a European company sells a ship to the United States and its construction will be completed in a year's time, production and sales will not be thinking about protective measures but about the ship-building and the conclusion of the sale. It is the task of the financial people to make sure that a billion dollars will produce enough euros during the year, as well as to advise the sales organisation to discontinue financially poor practices such as cash discounts or long payment terms, or to prevent currency risks by always buying in euros where possible.

Our point here is not only to encourage the various functions to work more closely within the company, but also to emphasise the role of financial management in the overall management and steering of the big picture. When a finance department has modern tools at its disposal, its contribution to the development of the core business will not be just good advice and prayers. *Providing control* and *feedback* will be easy: “See what a positive impact this new practice of – say, new terms of payment – has already made to your unit’s figures!”

Modern, specialised cash management tools provide you, above all, with control. You understand your cash flows because you can monitor and manage them easily. Different finance functions have different information needs: accounts receivable staff, cash managers, group treasurers and CFOs all need different data – presented in different ways.

When developing your processes, ensure that your systems provide the right financial data to the right people, in the right format. When you’ve got that, you can transform data into information in no time at all, analyse it, and make the best decisions based on it.

Automation increases security

Do you know where your money is? Do you know who sees and does what? Do you trust your systems to have adequate points of control?

Let’s just imagine that one morning a finance department wakes up to a nightmare: a big sum of money has vanished from a subsidiary. As the subsidiaries manage their cash themselves and reporting and monitoring lag behind by weeks, it will have taken time for this problem to come to light and it will take even more time to find out who was responsible – if this can ever be found out. And by that time the money will be long gone.

Fraud and deception do occur in real life, though you may not always hear about it, as companies will usually try to take care of the matter without attracting a hail of publicity. Contrary to common belief, the offender is rarely like the frivolous rogue that is portrayed in films who cleans out the accounts and then enjoys the rest of his life under a palm tree. More often it is a trusted and valued employee whom nobody would ever suspect. For some reason this person has ended up in financial straits and resorts to exploiting his or her position as keeper of the money.

When it is a question of money and moving it from one account to another, control is essential. Control is achieved with technical requirements, corporate legislation, other regulations (SOX, IFRS) and good governance.

A modern cash management application needs excellent features to ensure that corporate property – both money and information – remains safe, that the processing chains inside systems and during integration are watertight when it comes to data security and that there is no possibility for malpractice. Advanced systems designed for cash processes make cash flows visible and create control and transparency, also from the point of view of personnel security.

Data security is a central feature in specialised cash management and cash flow systems. Tools such as automatic monitoring follow the progress of processes non-stop and alerts are sent when necessary. Access rights management is part of the system and not something that the IT department has to worry about.

In centralised solutions, data security and access rights management are also centralised, which prevents many security threats. The advanced systems fulfil the demands of the Sarbanes-Oxley (SOX) regulations by including system integration controls such as the audit trail supported by efficient log file management and the electronic archive, which make it possible to check anytime what has been done and by whom and who granted the access rights.

● Key points

- * *Full cash control and transparency throughout the organisation.*
 - * *Optimised working capital.*
 - * *Only one external bank account needed for the whole organisation.*
 - * *In-house virtual accounts improve efficiency and control.*
 - * *Considerable savings with automatic reconciliation of incoming cash.*
 - * *Human intervention needed only with errors and special cases.*
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① Standards and standardisation enable cash flow automation

The introduction of standards and standardisation have made possible the development of highly automated solutions for cash flow management and forecasting. The most significant of these standards and standardisation processes are explained here.

SEPA

The creation of SEPA, or the Single Euro Payments Area, standardises euro payment formats across all 32 SEPA member countries. Based on a common standard, European banks and other parties involved in the payment traffic infrastructure, as well as the companies and other entities making and receiving payments, can now develop cash management and payment solutions that will enhance efficiency and competitiveness in the future.

Benefits for business

The aim of SEPA is basically to facilitate euro payments across national borders. As a common payment standard for 32 European countries, SEPA provides a range of benefits for companies that do business in the euro zone, not least the opportunity to harmonise their processes and centralise financial administration services across borders. Some of the benefits, such as faster payments and reduced transaction costs, will be felt by all companies, whether or not they use the full potential of SEPA. This full potential can be utilised by rationalising financial processes, including bank relationships and bank accounts.

The main benefits of SEPA to companies are:

- Faster and simpler payment processes.
- Improved cash flow. Payment and collection factories, for example, are easier to build and handle, since different systems in different countries will 'speak' the same language through the process. By centralising control over payments, working capital can be enhanced and payments processed more regularly.
- Centralising the payments of subsidiaries is permitted in most European countries, and SEPA turns such possibilities into real options.
- Lower transaction costs, as the banks must treat domestic and cross-border euro payments in the same way. The savings will be considerable for companies with a large number of cross-border payments.
- Lower costs in bank connections, as SEPA enables the number of external banks to be reduced. The estimated cost of maintaining an electronic banking interface can vary from EUR10,000 to over EUR 30,000 per year. The transition from decentralised processes with dozens of banking interfaces to centralised payments processes will cut costs and enhance security.
- Less administrative work, as financial processes can be rationalised and automated.
- Opportunity to improve financial processes, relocate finance units and choose cash management banks freely in any country in the euro zone, according to the needs of the company. Centralising processes also presents the opportunity to implement consistent technology.

There will still be some local regulations that must be taken into account when centralising bank accounts. In Spain and Portugal, for example, in-country accounts are still necessary, and some local payment methods will not be replaced by SEPA. In spite of some extra work required to handle such exceptions, the benefits of SEPA to companies are undisputed. Tried-and-tested examples of good SEPA practices already exist, especially in the Nordic countries, and competence and help is available.

ISO 20022

The main standards facilitating cash flow automation are based on the global ISO 20022 standard. This is a framework that companies, banks and financing organisations have agreed upon together for the standardisation of payments traffic and the creation of standards for the field. In other words, it is the view of experts in international monetary transactions on how to best manage money traffic between companies and banks on the basis of best practices in the field. Technology in accordance with this standard will provide companies with the opportunity to harmonise payment processes throughout their organisation.

SEPA payments

SEPA payment traffic (credit transfers, direct debiting, card payments) is based on the ISO 20022 standard. Uniform formats and payment methods in the SEPA area will lead to uniform processes. The standard includes descriptions of the payment traffic processes and their various phases between banks and companies.

The SEPA regulations require banks operating in the euro payments area to comply with the SEPA standards. Therefore, a national entity or an individual bank may not create systems that differ from the standard or its guidelines. Major European banks participated in the creation of the standard and its guidelines. The principle is that lower level guidelines may not conflict with a higher level guideline, but they may include complementary definitions regarding the higher level. The hierarchy of guidelines is as follows:

- ISO 20022 standard
- Common Global Implementation guideline (CGI)
- EPC SEPA rulebook
- National guidelines
- Guidelines for banks

Local payment instruments may therefore differ as a result, and international companies will still have to use more than one format to manage their payments - either with a cash management bank that offers comprehensive services or with the help of an integration expert familiar with the systems of international banks and the country-specific standard variations.

ISO 20022 messages are based on XML technology. The entire standard is described in *ISO 20022 Universal financial industry message scheme (UNIFI)*.

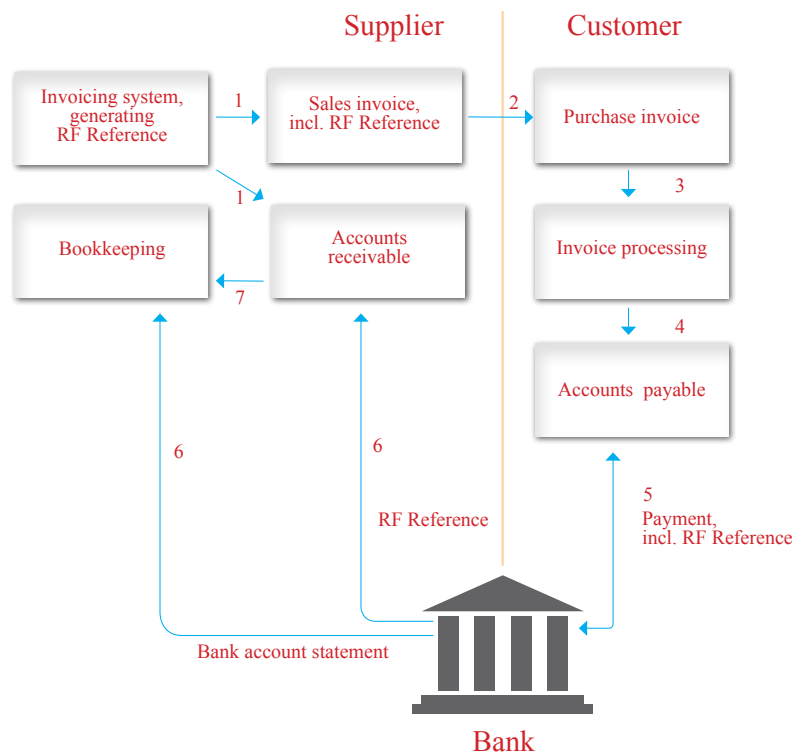
The camt account statement

The ISO 20022 standard also forms the basis for the new European camt account statement format. A standardised account statement plays an important role in cash flow automation: it relays camt messages or, in other words, it transports the international RF Reference and corresponding XML identifiers through the entire payment chain. Account reporting, based on the ISO 20022 standard and used for relaying reference messages, will gradually be available in all the banks in the SEPA area and also outside it. This will open up completely new opportunities for companies to automate, harmonise and centralise their financial administration processes globally.

RF Reference

A third factor that is central to cash flow automation is the international, standardised RF Reference that facilitates a full end-to-end straight-through payment process. A reference (i.e. reference number) is an allocating factor that identifies an invoice and a transaction. Its uniform structure contains information on the invoice and enables advanced automation.

A reference number boosts the processing of incoming payments, in particular by enabling the automatic allocation of payments in accounts ledgers and postings. As the allocation information identifies the invoice unambiguously, payments with refer-



RF Reference. The journey made by an RF Reference or corresponding identifier through the systems of the supplier, the customer and the bank.

ences are allocated correctly. A reference improves the predictability of liquidity as it provides almost unlimited opportunities for the monitoring, reporting and analysis of payment data from different perspectives. A reference also links a payment with its related information in the company's other systems.

A reference number is also useful for the payer, as it streamlines the payment processes. No payment specifications are needed other than the reference.

The international RF Creditor Reference can be used globally. Banks in the SEPA area have enabled its use since December 2010.

The use of reference numbers and their attachment to account statements at all stages is not something new to Europe. It is well-known in the Nordic countries, particularly in Finland, its country of origin, where the bank system and the entire infrastructure of payment traffic have enabled the use of developed, automated processes for decades now. The reference number is widely used in all kinds of payments based on invoices, both in B2B and B2C sales.

A reasonable level of automation can also be achieved without an actual reference or corresponding identifier. A system can be programmed to search for certain information in received payments and match this automatically with the accounts receivable. However, in such solutions that are based on fuzzy logic, the number of errors and unsettled payments is high, which in turn causes a lot of extra work. The undeniable advantage of the reference number is that it is accurate and unambiguous. If there are a hundred invoices showing the same sum and three of them are unpaid, accounts receivable will know exactly whose payments are overdue and send reminders accordingly.

eInvoice

The eInvoice is a key factor in cash flow automation. A genuine electronic invoice is an electronically delivered invoice which is machine coded, contains an identifier and can be processed automatically in a company's systems.

eInvoices speed up the movement of money, improve the safety of invoicing and payment and boost the payment process. The lack of an international standard, however, has so far delayed widespread use of eInvoices. In Europe, there are hundreds of operators and countless local and operator-specific formats. A European eInvoice standard is currently being planned within the EU.

SWIFT

SWIFT is a global actor in cash flow automation. It was originally a channel for payment transactions for banks, but in recent years it has become available to companies and there are now various ways to use its network in cross-border payments worldwide. The SWIFT standard is extensive. It accepts many forms of payment data and also relays camt messages.