

A wide-angle photograph of a snowy mountain landscape. The foreground shows a snow-covered slope with dark rocks. In the middle ground, a valley is filled with snow and some small structures. The background features more snow-capped peaks under a cloudy sky. At the bottom of the image, four cyclists are riding fat bikes across the snow.

1 billion francs for emergency plans
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about "too big to fail"

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1 billion Swiss francs for emergency plans

A breakdown of payment transactions could drag the entire economy into the abyss. That is why the Swiss provisions for “too big to fail” (TBTF) require systemically important banks to create the conditions necessary to continue operating central functions such as payment transactions even in the case of threatened insolvency. Markus Ronner, in charge of implementing the TBTF regulations at UBS sheds light on the consequences.

Standardization Page 9

EBICS – from electronic banking to European banking

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Standardization Page 10

What’s next for the migration of payment traffic in Switzerland? Review and outlook among the software vendors

At the software vendor event held by SIX Interbank Clearing Ltd, the leading players in Swiss payment traffic discussed the short-, medium- and long-term perspectives in their field. The focus was on the issues of migration and standardization. The event on 17 September was hosted by Credit Suisse.

Products & Services Page 12

The added value of real-time payments from the customer’s perspective

Real-time payment systems are advancing worldwide, and various international studies point to customer demand for accelerated payment procedures. But how does such demand manifest itself in Switzerland? How important is such acceleration for customers? And how should corresponding offers be designed so that they provide relevant added value? Swiss Payment Research Center (SPRC) asked these questions on behalf of SIX.

In & Outs Page 14

Hello IID, goodbye BC number

The BC number has functioned for the identification of system participants since introduction of the SIC RTGS system in 1987. Starting April of next year, this identification number will be called the Institution Identification (IID). The background for the change.

Bits & Bytes Page 15

The token as a safe anchor in mobile payments

Wherever there is money, thieves are not far off. This is equally the case in real life with classic pickpockets as it is in the digital world. There, cyber criminals are even more dangerous than run of the mill shoplifters because the prospects of gains are massively greater, as are the amounts lost. That is why tokens – series of numbers that are worthless to potential thieves – are being used in mobile payments.

**Dear reader,**

Regulators around the world have tried to defuse the “too big to fail” (TBTF) problem since the financial crisis. The examples of Ireland and Iceland have shown that an imbalance of big, key financial institutions in a country – so-called systematically important banks – can drag down entire economies. The Swiss National Bank had to prop up UBS a few years ago to protect Switzerland from this threat. Markus Ronner, Head of Group Regulatory Relations & Strategic Initiatives at the big bank, explains what consequences this has had in an interview on page 4.

In addition to banks, TBTF impacts financial market infrastructures, if they are identified as systematically important by regulators. In Switzerland, these include the SIC payment system, the central SIX x-clear counterparty and SIX SIS, the central depository, hence, practically the entire Swiss Value Chain. The foundation for regulation is formed by the Financial Market Infrastructure Act (FinfraG), which shall come into force on 1 January 2016. The primary intention of this is to increase market transparency and to reduce liquidity risks through new reporting rules and the central clearing of OTC trading of derivatives. At the same time, through harmonization of the Swiss rules with the new international standards, the competitive connection of our financial center shall be ensured, especially with the European financial market (keyword: EMIR). Recovery and resolution planning are essential components of the Financial Market Infrastructure Act. This means that SIX, as the financial market infrastructure operator, must disclose to regulators the measures that would be necessary for a sustainable recovery in a crisis situation so that its systematically important business processes can be ensured. The plans are well underway and

I am confident that they will be approved by the Swiss National Bank.

Apropos OTC derivatives: secured funding with central clearing of securities traded over the counter is gaining in importance – in line with the reduction of risk requested by regulators. Imagine that before the financial crisis, extensively unregulated and partially uncollateralized OTC transactions amounted to a volume exceeding 80% of the entire market. Among these was the credit default swap (CDS) that is considered to be a major contributor to the financial crisis. Such trades involve incredible amounts of money worldwide. At the end of 2012, the banks’ open contract volumes in the OTC derivative market was around CHF 90 trillion in Switzerland alone.

A year and half ago, SIX launched the central trade repository for derivatives reporting to facilitate the transparency required by regulators for our banks and to increase the traceability of OTC transactions. We thus make a contribution towards the stability of the financial markets, as well as enhancing the attractiveness and innovative power of the Swiss financial center.

A handwritten signature in black ink, appearing to read 'U. Rügsegger', written in a cursive, stylized script.

Dr. Urs Rügsegger
CEO SIX Group

1 billion Swiss francs for emergency plans

A breakdown of payment transactions could drag the entire economy into the abyss. That is why the Swiss provisions for “too big to fail” (TBTF) require systemically important banks to create the conditions necessary to continue operating central functions such as payment transactions even in the case of threatened insolvency. Markus Ronner, in charge of implementing the TBTF regulations at UBS sheds light on the consequences.

CLEARIT: Mr. Ronner, hundreds of CLEARIT subscribers work at the five Swiss systemically important banks. Can you briefly explain to them what terms that are used in the TBTF discussion, such as “smaller balance sheet”, “greater capitalization”, “fewer risks”, “global resolution strategy” and “leverage ratio”, have to do with payments?

Markus Ronner: These are primarily reference terms. They result from the search for measures to make banks more robust and crisis-proof for future situations. An important goal in the process is, on the one hand, that banks are able to manage potential crises on their own, and on the other hand that they are resolvable if they cannot overcome a crisis on their own. The aim of resolvability is to avoid the need for tax money should a bank become insolvent. This development is being overseen internationally by the Financial Stability Board, which has issued guidelines towards this end.

Can you name a specific example?

A global resolution strategy, to use one of these reference terms, indicates nothing more than that banks must convincingly show how a globally-active bank would be liquidated. This includes how they would be recapitalized and then restructured accordingly, or how they would be liquidated if necessary.

And what impact would that have on payments?

Besides credits and deposits, the Swiss legislation views payment transactions as a so-called systemically important function. Therefore, within the scope of the resolution plans, the banks must convincingly explain how payment transactions would continue to function even if individual business units of a bank are liquidated, and how transactions to the real economy, such as salary payments, would be guaranteed. This can reduce the collateral damage to the outside world resulting from a bank resolution.

In other words, payment traffic is a means to an end.

Yes, it is no use if, for example, deposits and credits would be further entered in the books without being able to trigger the corresponding payments. The flow of funds must be ensured in an economy. That is why payment traffic is a systemically important function.

The aim of TBTF regulation is the limitation of risks in the financial system through less market concentration and reduction of complexity. How do you intend to achieve this? What role does the adaptation of your Group structure play, with the founding of new subsidiaries?

Essentially, two factors must be considered: On the one hand, lawmakers have defined which criteria comprise system relevance. These include the size as well as the market share in connection with systemically important functions (e.g. deposits, credits). If a bank reaches a certain (balance sheet) size, then in the case of a default it may potentially represent a systemically important risk, because other banks may not be able to assume its liabilities in the short term – and this from a global perspective. In brief: the larger a bank is, and the greater its market penetration, the more equity capital it must hold. The balance sheet size and market share are determining factors.

“UBS Switzerland represents the ‘operationalization’ of the Swiss emergency plan.”

And the second factor?

The second factor involves the resolvability, which requires a reduction of the complexity of operational and financial dependencies. The legal structure is a tool that

Financial Stability Board (FSB)

The FSB is an international working group that promotes financial stability and, among other things, significantly determines how thick the capital cushion must be for the big banks. The Board is comprised of 24 member states, among them Switzerland, plus the EU, the BIS, the IMF, the OECD, the World Bank and six standard-setting bodies. The Federal Department of Finance and the Swiss National Bank are both represented with a seat each. This enables Switzerland to strengthen cooperation and coordination in the oversight of the international financial system, and contribute to reducing systemic risks. It also gives Switzerland the opportunity to actively participate in the international dialogue on the early identification of issues relevant to stability, in particular in the areas of financial market regulation and supervision, and international financial systems.

Source: SNB



Short bio

Markus Ronner has been in charge of Group Regulatory Relations & Strategic Initiatives for three years, where he is primarily occupied with regulatory changes and their strategic consequences for UBS. Between 2011 and 2012, he was Global Program Manager for the UBS' "Too big to fail" program. Markus Ronner has previously

performed other functions at the bank, including: Chief Operating Officer Wealth Management & Swiss Bank, Global Head of Product & Services and Chief Operating Officer, UBS Global Asset Management. He led the UBS Group Internal Audit department from 2001 to 2007.

aims to simplify resolution. Towards this end, UBS established a non-operative holding company (UBS Group AG) as its new parent company to facilitate a coordinated resolution. UBS Switzerland AG was additionally founded to satisfy the Swiss requirements. In this way we can show how we can continue to conduct systemically important functions, such as deposits, credits and payment transactions, while the bank's other legal entities can be restructured or liquidated in a controlled manner in a crisis situation. In other words, UBS Switzerland represents the "operationalization" of the Swiss emergency plan.

What questions do these emergency plans have to address?

The emergency plans show the global resolution strategy for UBS Group AG; hence, how UBS as a whole would be recapitalized and further operated or wound up. Added to this are various local scenarios, such as for Switzerland, the USA or UK, just to name the leading jurisdictions in which UBS operates as a systemically important bank on a global level.



What does that mean specifically?

In Switzerland, with UBS Switzerland AG we show how we will further conduct functions that are systemically important for Switzerland in a crisis. In a manner similar to Switzerland, we will implement UBS Americas Holding LLC by mid-2016. In that context, in the emergency plans we show what a resolution of our US business units would look like. These resolution plans generally always involve a combination of a global plan and a local component. The plans include both recovery by the bank and the restructuring or resolution of a bank, if it can no longer recover. The recovery plan addresses how the bank can recover in a crisis, and specifically how it can implement capital, liquidity measures and/or risk reduction measures. If the bank cannot stabilize itself out of its own resources, then the supervisory authorities will take appropriate insolvency actions. In the process it is preferable to implement a global resolution strategy that would be led by the Federal Financial Market Supervisory Authority FINMA in close cooperation with other authorities. This global resolution strategy is based on a recapitalization of the Group through conversion of debt into equity, potentially with other measures that enable the maintenance of the entire bank. If such a global resolution strategy is not possible for some reason, the authorities, based on local resolution plans, will sell and/or liquidate in a controlled manner the individual parts of the Group.

Systemically important banks here must meet special requirements extending beyond the international minimum standard. What consequences does this have?

The systemically important banks, whether global or local, must meet higher requirements pertaining to capital and resolvability. The capital requirements bear a distinct Swiss finish. This involves significant additional costs. Furthermore, through structural changes, the banks must ensure that their resolvability is intact. UBS, for example, founded a new group holding company, UBS Group AG, and a new Swiss banking subsidiary, UBS Switzerland AG, in the past 18 months and has also made significant adaptations to the structure outside Switzerland. The costs for these changes are running at around one billion Swiss francs at the end of 2015. These structural changes also require the work of a great many employees; the establishment of UBS Switzerland AG, at times, involved more than 2,000 employees.

How does TBTF impact the operative payment traffic process at UBS?

In regard to payment traffic, there are guidelines by the Financial Stability Board. These require global banks to show how critical services can be maintained even during a bankruptcy procedure. The banks have three options.

For example, the individual banks within a banking group can be operated independently, with many services run in a decentralized manner. Alternatively, the central, crucial services can be turned over to so-called service providers and outsourced to external companies, whereas the corresponding regulations pertaining to outsourcing would apply. We have already announced that we will outsource our supporting services in legal entities under the umbrella of UBS Business Solutions AG – anticipated among these is also the area of payment traffic.

“The requirements in Switzerland are the strictest in the world.”

The entire adaptation is primarily due to the new regulatory reality. Do you see any advantages arising from this for the bank or the financial center as a whole?

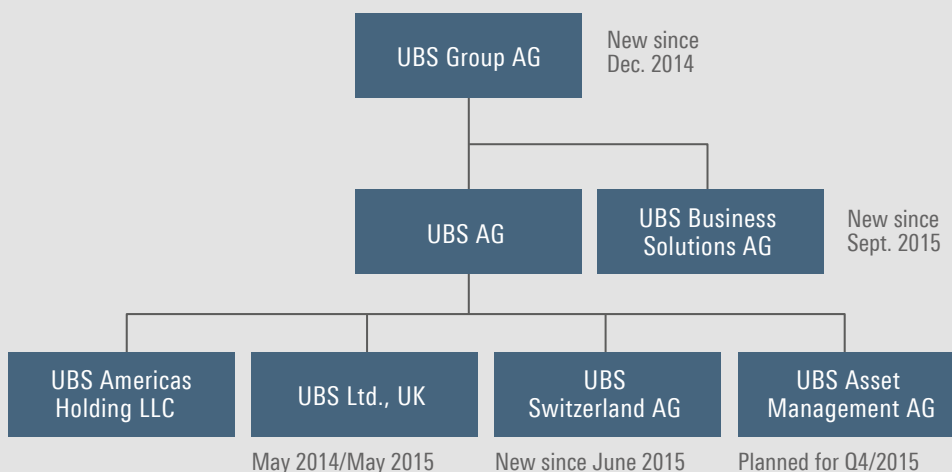
In addition to the regulatory adaptations, we are also taking the opportunity to take a closer look at existing processes and structures and to improve them where necessary. I see them as two parts – obligatory and voluntary. The obligatory part includes the implementation of the regulatory requirements. The voluntary part then results in an improvement of our processes and what we

offer. UBS has generally made a great deal of progress in the past three years within the scope of the regulatory adaptations and has established a good position internationally. With the Swiss implementation of the “too big to fail” specifications, confidence in the Swiss financial center can certainly be further strengthened. The requirements in Switzerland are the strictest in the world. This increases financial system security, which in turn positively impacts all Swiss banks. But all this involves considerable cost, which ultimately increases cost pressures on the banks, or which will partially flow into the prices of products and services. In the end, the balance between costs and benefits must be considered.

We have highly automated and ever more efficient payment solutions in Switzerland, which are offered jointly by the banks and the infrastructure operator SIX. To what degree could this infrastructure be assigned a changed role in view of the TBTF topic?

Financial market infrastructures tend to grow ever more important. More robust banks also correspondingly need robust infrastructures. Therefore I would also expect that SIX will be confronted with corresponding requirements. The industry must generally review how operative models must be designed today and can be further developed. That is a new challenge which is also marked by new customer behaviors and needs.

New legal structure of UBS





Systemically important banks

Under the terms of the Banking Act, a bank or group of banks is considered to be systemically important if it performs functions in domestic loan and deposit-taking which are essential to the Swiss economy and cannot be substituted at short notice. Other criteria such as size, risk profile and interconnectedness are also taken into consideration when deciding on systemic importance. Systemically important banks in Switzerland must comply with special requirements (too big to fail), which go beyond the minimum standards established by Basel III (Swiss finish). The Banking Act gives the Swiss National Bank the mandate to identify banks and bank functions as systemically important, following consultation with FINMA. At the moment Credit Suisse, UBS, ZKB, Raiffeisen and PostFinance are classified as systemically important.

Source: SNB

In your employee magazine you recently stated that neither the bank's business strategy nor its customers are affected. Changes in commercial payment traffic are also not necessary for banks in Switzerland. Besides legal matters, the restructuring does not seem to have any noteworthy consequences outside of UBS?

Yes, that is right. Our customers continue to be customers of UBS, regardless of which legal structure their accounts are booked to. A customer of UBS AG is just as much a UBS customer as is a customer of UBS Switzerland AG. We serve our customers with the same products and services as we did before the changes to the legal structure. The only consequence for customers due to the implementation of UBS Switzerland AG is that today they obtain products and services from UBS AG and UBS Switzerland AG. This primarily involves large institutional customers.

“Worldwide, around 30 new regulations are created in the financial sector daily.”

The UBS employees continue to do the same jobs as before. Only the legal backdrop has changed?

Precisely. With the new legal structure we have solely created the basis to develop convincing emergency plans. And, of course, while doing so it is very important that our customers be served without disruption and without noticeable changes.

How do you estimate the dimension of future regulations?

You must stay on top of the fact that worldwide, around 30 new regulations are created in the financial sector daily. It is important that the regulators do not go too far with their rules and that they keep a close eye on the costs for the economy as a whole.

Interview:

Gabriel Juri and Christian Schwinghammer

SIX Interbank Clearing

EBICS – from electronic banking to European banking

The Swiss financial center has been part of the EBICS company since mid-May 2015. The Swiss recommendation for implementation of the EBICS standard was published shortly before this. On the basis of a secured Internet protocol with multiple encryptions, EBICS facilitates the flexible, efficient, documented and secure processing of banking transactions using electronic signatures. The standard is about to receive an update.

At the CeBit 2006, the former ZKA (German Banking Industry Committee) introduced a so-called upgraded RDT agreement (remote data transmission), called EBICS. After EBICS became obligatory for German banks and the French banks also migrated to this standard EBICS s.c.r.l. was founded by the two countries in 2010. Headquartered in Brussels, the company aims at further development and dissemination of the communication protocol. Switzerland joined as an additional member in May this year. This standard is established in the market today and has the potential to become the European payment transactions standard for the transmission of financial transaction on the business customer-bank interface. The entire European financial industry is welcome to use EBICS and to take part in the future development.

SIX Interbank Clearing is getting involved with the international EBICS Working Group for the harmonization of the standard.

New version featuring new types of order

One of the most obvious differences when using the current version of EBICS is the distinct designation of the types of technical banking order in the primary markets Germany and France. This leads to interoperability problems for many users, resulting in increased costs.

The problem was accentuated when Switzerland joined EBICS, along with other markets interested in using EBICS. The EBICS company thus decided to further develop the standard accordingly and to design a new version that is more universal and homogeneous in use.

The experts from Germany, France and Switzerland drew up a proposal towards this end that envisages two new order types (for uploading and downloading respectively) that meet these requirements:

- Instead of fixed codes or structured character chains as used in the current technical order types, an XML structure will be used to describe the contents, the pre-processing and the target and origin service of an order.

- The content of the EBICS order will be specified through the provision of the business division and message type, and optionally also the provision of the market practices used.
- Processing steps such as electronic signature verification, the distribution of an electronic signature or the preparation in or decompressing from a container format (ZIP or XML container) can be requested through the pre-processing characteristics.
- The entering of a service, and potentially, other service options, defines the routing of the order to a service or the service from which the prepared messages will be called up.

Migration to the new order types shall take place gradually. First, the new EBICS markets, including Switzerland, will support the new order types, while at the same time in the existing markets, requirements pertaining to the new order types can be specified with the new EBICS order types. The respective markets and market participants are free to decide whether or not to implement a general migration to new order types.

In the medium term, the new order types shall completely replace the existing ones and thus lead to a consistent separation between the administrative types of order in the EBICS protocol and the types of technical banking order.

At the December meeting, the Board of Directors will decide on the time plan for introduction of the new EBICS version and initiate the corresponding communication measures.

Albert Apolloner

SIX Interbank Clearing

EBICS

EBICS (Electronic Banking Internet Communication Standard) is an open, Internet-based communication protocol equipped with the latest security technology for the transmission of financial transactions between customers and banks. The Swiss financial center has actively participated in the further development and promotion of EBICS for the past two years. As the representative of the Swiss banks, and in the conviction that EBICS has the potential to become the European standard, SIX Interbank Clearing took a financial stake in the EBICS company in May 2015.

What's next for the migration of payment traffic in Switzerland? Review and outlook among the software vendors

At the software vendor event held by SIX Interbank Clearing Ltd, the leading players in Swiss payment traffic discussed the short-, medium- and long-term perspectives in their field. The focus was on the issues of migration and standardization. The event on 17 September was hosted by Credit Suisse.

The well-attended software vendor event from SIX Interbank Clearing Ltd, which was held on the premises of Credit Suisse this time, offered a valuable stocktaking for the technical implementation of the payment traffic migration in the Swiss financial center. Various presentations clarified the necessity of joint efforts towards the increased standardization of Swiss payments. In view of the challenges among the parties involved, the basic consensus was that clear specifications with stable general timeframes are needed. In this sense, the event represented a point of departure in terms of a successful total overhaul of Swiss payment transactions.

Lars Möller had a hand in designing the event on behalf of Credit Suisse. He answered questions from CLEARIT as the Senior Product Manager for Payments Standards & Client Connectivity.

How do you evaluate the state of the migration regarding the harmonization of payment traffic?

A distinction must be made between two areas when it comes to the migration:

On the one hand, we have the migration on the market side. The timetable is clear, and the first connections have already been made. Credit Suisse, for example, is already productively connected to euroSIC⁴. Furthermore, the necessity and specific further steps have been made clear to all partners. On the other hand, on the customer side, while the topic of payment traffic migration is on the agenda among software producers, is it not yet among all end customers.

How have you come to this conclusion?

The evaluation is based on a customer survey that we conducted and on feedback from our software partners at the last vendor event.

What do you think about this year's software vendor event?

Feedback from the software vendors shows that the event was appreciated and that the new concept with breakout sessions was well received. Therefore, this concept should be retained. The participants emphasized the importance

of conducting this event regularly as a platform for an institutionalized exchange of opinions.

The financial institutions represented showed how they are handling the various implementation phases with their presentations. As a reaction to this, the software vendors spoke about the various approaches they are taking to implement the harmonization: from focusing on a single financial institution to waiting until they can reduce the implementation steps or identify customer preferences. The software vendor event of 17 September 2015 also represented an important milestone in terms of customer migration.

How is that?

In the communication regarding the harmonization of payment traffic, Credit Suisse broke it down to four phases:

- Awareness:** The recipient shall be made aware of the upcoming necessary change.
- Understanding:** The recipient shall comprehend the purpose and impact of the change.
- Commitment:** The recipient shall understand and accept the necessity of the change.
- Enablement:** The recipient must be placed in a position to be able to successfully implement the change.

Feedback from the software vendor event of 17 September 2015 clearly shows that the first two phases have been completed and we are now in the last two phases. Therefore, the topic of enablement should be the emphasis of further events.

How could enablement specifically be emphasized?

Presently, the specifications clearly differentiate between the various participants in the design. It would be helpful here to provide the banks centrally with a uniform template. The work required by the software partners could also be significantly reduced if the specifications would be compared to one another centrally and if the bank-specific extensions could be clearly marked. A standardization of the Additional Optional Services (AOS), such as what took place in August 2015 with the use of the priority flags for express payments, would make sense for the software vendors. In addition, a distinction between basic functionality (e.g. paying a bill) and extended services (e.g. treasury payment in renminbi with special specification of the processing chain), would make sense. At Credit Suisse we distinguish between various software categories, such as ERP or treasury. It must be clearly stated

here that not every software category need always master all extended functionalities.

Can you name an example of that?

For an ERP, the processing of debit and credit notifications is indispensable, which is why it must be able to handle the camt.054 in the future. A treasury system, on the other hand, needs end-of-day account statements, which can be represented by means of camt.053.

Some software vendors are simply waiting to be able to offer an optimal range of formats toward the end of the migration. What's wrong with that?

That is not recommended. The software vendors are in a key



From the new PaymentStandards.CH imagery (Photo Stephan Bögli, 2518 Nods)

position when it comes to enablement. Without them, most customers are simply unable to participate in the harmonization of payment transactions. If a vendor makes the new formats available too late, this can lead to a plethora of testing and other implementation activities in the Swiss financial center, whereby the resources of banks, IT consultants, etc. can be put under heavy strain. All participants are thus instructed to make the formats available for customers as soon as possible. Experience shows that it takes two years until the majority of software users complete the introduction of a new version and the teething problems are worked out.

What else can be done in terms of communication to accelerate the migration on the customer side?

The communication to software producers should be supported by a central communication to the end customers.

What emphases will Credit Suisse place in the communication to software providers in 2016?

Credit Suisse will also place the emphasis on enablement next year. In addition to migration tools for end customers, this primarily involves specific testing possibilities for software providers and the coordination of communications towards end customers.

Have you identified a particular need for testing during the migration?

An especially sensitive topic is the fact that there no longer is a designation for salary payments which banks should adhere to. Here the software producer must, with the managing of the debit notification, ensure that no information about salaries lands in the wrong hands. We always make a special point about this in our contacts with software producers. Only tests can ensure that these payments are processed correctly.

Interview:

Michael Wunderl

Payments Products, Credit Suisse

New communication phase, new brand, new website

The aim of the Swiss financial center in its communication activities over the past three years is to create awareness among the financial institutions and software providers about the "Migration Payment Traffic Switzerland" program and to request their commitment to it. Now it is time to take a further step and to launch the implementation phase. The Swiss payments committees have come up with several ideas towards this end. In the future, the financial center will position itself under the new brand, PaymentStandards.CH – "powered by" SIX and SwissBanking. The website: www.PaymentStandards.ch will replace www.migration-pt.ch in December. The focus will be expanded to all target groups, i.e. in addition to the financial institutions and software providers, messages pertaining to the standardization and harmonization of payment transactions shall reach corporates, industry associations, consultants and institutions such as public-legal bodies and other interest groups. Specific action recommendations to the players will help to make the requirements transparent and thereby simplify the implementation. Target group-specific communication materials will be created to support this.

Payment Standards.CH

A Swiss Financial Center Initiative

The added value of real-time payments from the customer's perspective

Real-time payment systems are advancing worldwide, and various international studies point to customer demand for accelerated payment procedures. But how does such demand manifest itself in Switzerland? How important is such acceleration for customers? And how should corresponding offers be designed so that they provide relevant added value? Swiss Payment Research Center (SPRC) asked these questions on behalf of SIX.

The world is turning ever faster: what was still modern yesterday is already outdated today. The strong momentum of the digital age is leading to altered living and consuming habits. And it is clear that time is becoming an increasingly important factor. Not only do we have less time available, but our mobile lifestyle is expressing itself in a growing on-demand attitude towards services providing ongoing support (24 hours a day, 7 days a week, 365 days a year).

The acceleration of services is also a central topic in the payment industry. Through new, more powerful technologies and the increased digitalization of payments, ever more options are available to accelerate processes and to make services accessible to customers at any time and any place. Against this backdrop, various countries around the world have already begun implementing real-time payment systems (RTGS) or have already done so. Driven by the development of e-commerce and the introduction of contactless payment, calls for accelerated payment procedures have also grown louder and the course set for a real-time payment system.

Status quo: still no valid end-to-end procedure

The currently existing payment processing is still not able

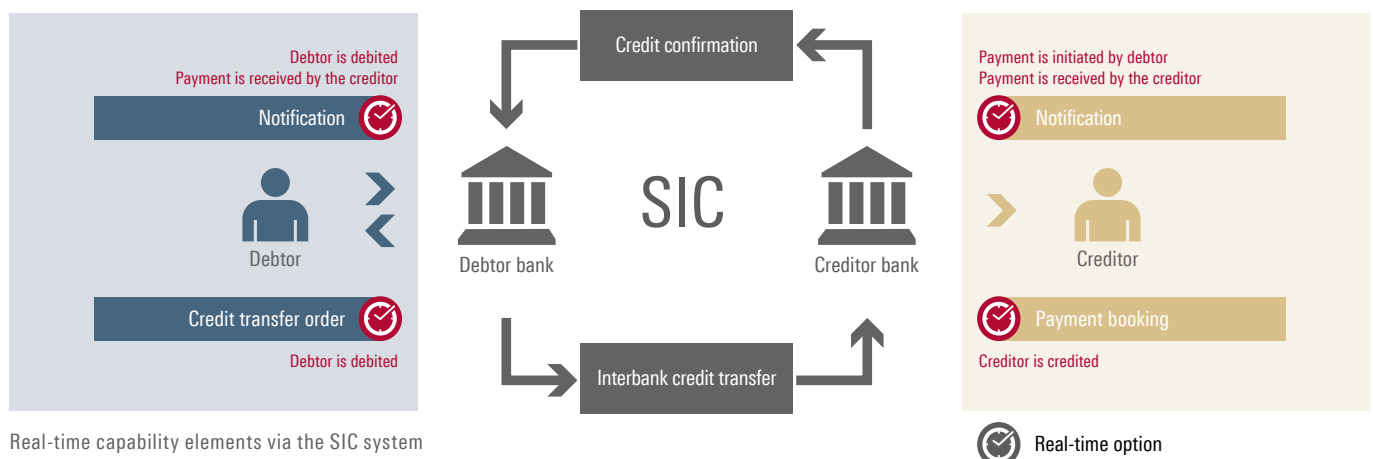
to meet the requirements of a real-time solution. Characteristically for the present procedure, there is a time delay of several hours to days (if the processing falls on a weekend) in the processing of low value payments. Like many other RTGS systems in the world, the SIC system settles interbank credit transfers in francs in real time, albeit the transfers are frequently routed with a time delay to the creditor, because no end-to-end procedure for real-time payments exists across the Swiss financial center. The prerequisite for a successful real-time solution would be a nationwide standard and corresponding offers that are capable of meeting customers' needs in regard to such payments.

Here too, however, also lies the challenge. What exactly does real-time mean to customers: seconds or minutes? How much is the acceleration of payment processing worth to them? And how should the design of corresponding range of offers look so that they are perceived as added value?

These and other questions were researched by the Swiss Payment Center (SPRC) from ZHAW (Zurich University of Applied Sciences) within the scope of a study commissioned by SIX.

Combined methodology for identifying real preferences

The study design, which was representative for German-speaking Switzerland, was based on a combined approach of qualitative and quantitative market research methods, with psychological in-depth interviews in Phase 1 and an on-line quantitative survey in Phase 2. The aim of the first phase was to clarify basic needs regarding real-time payments and the investigation of underlying motives with the help of a usage analysis. The second phase, in turn, aimed



Swiss Payment Research Center (SPRC)

The mission of the Swiss Payment Research Center to research specific aspects of cashless payments as an independent and national competence center. In cooperation with the financial industry, associations and other interest groups, central questions pertaining to cashless payments are defined, researched and the findings published if possible.

to quantify and validate the results of the first phase. The key component towards this end was an experimental approach with various gamification and scenario-based elements in order to identify real preferences. In the process, the test persons were presented in the context of situational examples different forms of real-time payments to choose from and assess. Based on the response behavior, conclusions could be drawn as to the significance of individual components, which allow statements to be made about the future design of offers.

Real-time payments as a further development of existing services

The study results show that consumers presently have difficulty assessing payments in terms of the payment process and duration of transactions and generally have little interest in the background processes. When confronted with various situations, the test persons perceive a need for accelerated transactions, especially for payment against delivery, highly urgent credit transfers and foreign payments. The relevance in a business context is also high.

In response to a direct question, the test persons see a fundamental need for an acceleration of payment transactions in Switzerland as well. Around half of the respondents see real-time payments as something needed in the personal environment. More than two-thirds see it as very likely that such payments will be expected by the general public in the future.

In terms of time frames, consumers perceive a duration of several minutes or seconds as being real-time. Furthermore, it was shown that an acceleration of a payment service is perceived as added value both in regard to booking at the creditor as well as notification. In the context of notifications, a pure information solution would bring substantial benefits if the balance was displayed close to real-time, meaning, in seconds. Accordingly, from the customer perspective it is not mandatory that the money is

immediately available after the payment instruction; in many situations the notification or a payment guarantee would suffice.

Although in certain situations a need for real-time transactions can clearly be determined, the readiness to pay for such acceleration is generally considered to be low. A certain payment readiness only exists for time-critical transactions. This is mainly because a certain expectation exists in regard to real-time payments.

At the top of the list for desirable forms of such real-time payments among the test persons are online purchases (e-shops, exchanges) via e-banking.

Further potential for an accelerated payment procedure is seen by the test persons in the displaying of account balance information (including budget overview and graphics) on a smartphone and the real-time payment of large amounts (e.g. for car or jewelry purchases). The lowest level of relevance for those surveyed was for the currently much-discussed P2P payment option, which is the cashless credit transfer in real time among friends via smartphones.

Conclusion

An important finding from the study is that real-time payments are not only desired, but are expected by the general public as a logical development. In this respect it is important to provide customer-tailored offers, and to clearly point out the real added value to the customers.

Sandro Graf, Bettina Gehring, Corinne Scherrer

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What are real-time payments?

Real-time and near-real-time currently refer to the acceleration of contemporary payment processes for low-volume payments in the range of minutes or seconds. Along the individual phases within the settlement process there are various starting points for real-time payment solutions:

- **Authentication:** payment guarantee (payment is promised)
- **Booking at the creditor:** the amount is credited to the creditor.
- **Notification of the debtor and/or creditor**

Hello IID, goodbye BC number

The BC number has functioned for the identification of system participants since introduction of the SIC RTGS system in 1987. Starting April of next year, this identification number will be called the Institution Identification (IID). The background for the change.

Within the scope of the “New SIC Architecture” project, the “Technical Rules and Regulations” were generally revised a year ago and republished as the “Swiss Payments Rulebook”. In this context, the BC number was also renamed to IID.

Not just for banks and for clearing

The term known as the bank clearing number (BC no.) has been obsolete since at least 2010 when system participants without bank status (e.g. insurance companies) were permitted by the Swiss National Bank. Furthermore, this number is not used exclusively for the clearing of payments, but also for information beyond the various payment infrastructures. For example, as a component of the IBAN, this can be used as a bank account number for many purposes.

Apropos IBAN

The IID is an old acquaintance. When the IBAN was launched as a standard by the EU financial institutions at the beginning of this century, it was defined as follows: The IBAN consists of four parts, a country code, a check sum that can be validated for all system participants, an IID and the actual account number part (BAN). The length of the IID and the BAN can be determined individually by each country and is binding for all financial institutions within that country. Since fall 2000, the SIC and euroSIC payment systems process the Swiss IBAN, in which the IID is equivalent to the BC no.

Standardization plus

The BC no. consists of 3 to 5 numerical positions today, for historical reasons. The new IID, which in contrast to the BC no., is not automatically meaningful, is comprised of five numerical positions. To be automatically meaningful means that each financial institution, for example, can be identified as a cantonal bank if the first number is 7. Now that does not mean that each bank must apply for an IID as a current system participant, just because it has a three- or four-digit BC no. Such numbers will be automatically supplemented with leading zeros and displayed. This means that the present identification numbers remain intact; a bank, for example, with the current BC no. “799” will not receive a new IID. However, the bank must supplement the 3-digit identification number, flush left, with zeros – thus, it would be “00799” – such as is

already used in the IBAN. Therefore, in practice, the difference will primarily impact public directories (e.g. bank master).

The standardization affects not only the amount of digits in the number, but also the use thereof. If a participant is connected to multiple systems and services, then the same IID must be used in all of them.

An exception to every rule

With the introduction of the new inpayment slip with data code in 2018, there will be a special IID with which the ISR procedure can be recognized. The group of numbers from 30000 to 31999 is reserved for this so-called ISR IID. The legally independent institutions participating in the procedure will each be issued an ISR IID for each SIC or euroSIC settlement account. Excepted from this are the Raiffeisen and RBA bank groups within which each independent bank can apply for its own ISR IID. Institutions do not generally have a claim to a specific identification number.

Like with the IID, for the ISR IID no conclusion can be drawn regarding the association with a bank or banking group. It is anticipated that issuing of all IIDs will occur through SIX Interbank Clearing as of next year. They will be published in the bank master.

Erika Dingler

SIX Interbank Clearing

Switchover in manuals and tools

The mutation of the BC number to IID is completed in the “Swiss RTGS Handbook”, which is applicable for the new euroSIC system since the introduction of the SIC⁴ platform in April 2015. For the SIC system, the “SIC/euroSIC User Handbook” will remain in effect until it is ported to the new platform in April 2016. The bank master with all its applications (inquiry, download and the electronic directory) will subsequently be switched over.

The token as a safe anchor in mobile payments

Wherever there is money, thieves are not far off. This is equally the case in real life with classic pick-pockets as it is in the digital world. There, cyber criminals are even more dangerous than run of the mill shoplifters because the prospects of gains are massively greater, as are the amounts lost. That is why tokens – series of numbers that are worthless to potential thieves – are being used in mobile payments.

The word “token”, when combined with a substantive noun, means “symbolic”, “faux” or even “pseudo”. A “token contribution” is thus worthless. The same goes for electronic and mobile payments, which are growing in popularity. Because every (especially private) computer, as well as every smartphone, is subject to a hacker attack, existing data is replaced with so-called “tokens” – fictitious series of numbers, which can be used to replace a credit card number, for example. In this way the victim of a successful hacker attack nevertheless suffers no loss.

How does that function specifically?

To protect customers, the card industry developed security standards aimed at offering criminals less room to attack, the so-called Payment Card Industry Data Security Standards (PCI DSS). The customer needs only reveal sensitive data (credit card number) once and then afterward receives a login. As of that point, should a hacker attack occur, the thief really cannot do anything with the stolen material, because the payment service provider (PSP) replaced the real credit card number with a fictitious number or set of characters immediately after it was verified. This method makes it possible to complete all essential business processes securely, including refunds, subsequent charges and installments payments.

And with mobile payment?

The procedure is very similar for mobile payment, that is, payment transactions via smartphones. The industry originally wanted to build in secure memory, initially on the mobile telephone network operator’s SIM card. Only this chip was trusted for secure storage or credit card data. Meanwhile, payments using so-called near field communication (NFC), have become the state of the art. This involves a data transfer standard across a few centimeters with a maximum transfer rate of 424 Kbits/s which is being used for payment transactions via mobile phones.

Now there are smartphones, such as iPhone 6 or Samsung S6/Edge, which are equipped with an integrated memory, a so-called embedded secure element (ESE). Regardless of these developments, the card industry has decided that here too it is best to be safe and to use tokens. These



tokens resemble real card numbers and can therefore be used at any contactless card acceptance point in the world. The most prominent service in the world is Apple Pay, which was launched in October 2014. Wallet services including Samsung Pay or Android Pay have since become as indispensable as Apple Pay.

And in Switzerland?

Swiss consumers, like their counterparts in the USA, are demanding that the industry provide secure payment services on the Internet, at cashiers and on their smartphones. In this country, these are being provided by SIX Payment Services, among others. The safeguarding of real credit card data and the replacement thereof by tokens for mobile end devices is a service that is both essential for the general public and bears great potential for service providers with the necessary professionalism.

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