pay

The Payments Professional Magazine from SIX — #3 — 2021

Disruptive Developments in Swiss Payments —
Future Talk with Thierry Kneissler — A Visit with Yokoy —
EBICS: As Simple as Possible, as Complex as Necessary

A VISIT WITH

Boundless Euphoria at Yokoy

10

GLOBAL PERSPECTIVES

API as a "Killer Feature" for Global Asset Management?

18

FUTURE TALK

Why Instant Payments Are Groundbreaking for Thierry Kneissler

07

HEARTBEAT

Over half of households use eBill today

08

SECTIONS

Publisher SIX Group Ltd, P.O. Box, 8021 Zurich, Switzerland, six-group.com/pay, pay@six-group.com Advisory Board Samuel Ackermann, PostFinance; Daniel Berger, SIX; Boris Brunner, Head, SIX; Susanne Eis, SECB; Pierre-Michel Gicot, BCV; Dieter Goerdten, SIX; Susanne Höhener, Liechtenstein Bankers Association; Daniela Hux-Brauss, Credit Suisse Ltd; Raphael Reinke, SNB; Peter Ruoss, UBS Switzerland AG; Nino Thommen, SIX Redaction Gabriel Juri, Editor in Chief, SIX Concept & Design *MADE* Identity AG, Zurich, Switzerland Printer sprüngli druck ag, Villmergen, Switzerland Translations Mark Rabinowitz, Translation Service Team, SIX (English); Denis Fournier (French) Photo Credits Ornella Cacace (p. 2, 10, 11), Cottonbro (Cover, p. 4–5), Ekaterina Belinskaya (p. 2–3), Laura James (p. 6), Tobias Siebrecht (p. 16–17) O. Sukru Goksu (p. 19) Illustrations Gregory Gilbert-Lodge (p. 2, 7, 16, 18), *MADE* Identity AG (Cover, p. 2–3, 4–5, 6)

Request to Pay and Instant Payments – Two Disruptive Elements in Swiss Payments?

TEXT
DANIEL BERGER,
HEAD ECOSYSTEM BILLING & PAYMENTS, SIX

What do the Gotthard tunnel, the Suez Canal, or an airport have in common with payment transactions? Little at first glance, but quite a bit on closer inspection. While railroads, maritime navigation, and air traffic secure the transportation of goods and people, payment transactions ensure that money keeps circulating locally and globally, thus keeping the economy running. Both areas require functioning infrastructures. Those infrastructures adapt to societal and technological developments and recurringly undergo bursts of innovation. In both areas, significant investments are generally necessary. Such investments benefit future generations, which build on those infrastructures and enable further innovation.

From the Propeller to the Jet Age

The leap from the propeller to the jet age is to the air transport sector what the transition from non-time-critical batch payment runs to the instant payment age is to conventional payment transactions. The introduction of the first reliable passenger jets in the late 1950s radically changed travel. New propulsion technologies and efficient wide-body aircraft enable ever wider strata of the public to comfortably travel long distances much faster than before without any layovers. At the same time, airport operators are continually expanding their facilities to accommodate the rapidly growing volume of flight passengers. Nobody wants to go back to old propeller aircraft.

It's exactly the same with payment transactions: the ability of instant payments to settle payments within seconds enables money to "travel" much faster than before without any interruptions. The transport of money from account to account suddenly also becomes interesting, for instance, for payments that get settled today over card networks. Like jumbo jets or airports, instant payment infrastructures are only economical when they operate at high capacity utilization. Instant payments will undoubtedly become the new norm sooner or later, and we'll never want to go back to the old world of

The payments world is buzzing: instant payments and Request to Pay have enormous potential.

payment transactions.

Although instant payment solutions are already available today in many countries, globally only insignificant numbers of payment transactions are considered instant payments. Why is that? One likely reason is that payments at a point of sale (POS) or online in e-commerce get settled today via cards and global card networks and are solidly embedded in entrenched processes and habits. We see a variety of efforts underway to reduce these global dependencies by devising innovative local solutions. One prominent initiative is the European Union's retail payments strategy, which aims among other things to provide EU residents with pan-European payment solutions to increase Europe's autonomy.

Request to Pay as a Catalyst for Instant Payments?

Practically every event having to do with payment transactions these days is concerned with discussing the issue of Request to Pay (R2P). Experts here often talk about the missing puzzle piece to a new payment transactions landscape. Why?

R2P is a messaging sequence whereby a payee sends a request to a payer for a specific payment. The payer then either approves or rejects the request. If the payer approves the request, this initiates a money transfer to the payee that the payment system generally executes as an account-to-account payment transaction with a time delay (non-instant) or in real time (instant). Thus, the same processing mechanisms apply as for normal bank transfers, which creates efficiency and increases independence compared to other, card-based payment methods.

Just how big an R2P process's potential with instant payments is can be seen, for example, at a point of sale. Instead of whipping out a card, I could approve an R2P initiated by a café for my takeout drink on a mobile app and pay instantly – my account would be debited and the café's account credited within a maximum of ten seconds. This scenario can also be applied to purchases in online shops. Invoicing is another oft-discussed use case. Although instant payments usually play a subordinate role here, the act of sending a bill electronically or in traditional paper form is essentially nothing other than an R2P. So, it's no wonder that the payments community is enthusiastic about the combination of R2P and instant payments. However, the associated infrastructures aren't scalable until R2P becomes accessible to a wide circle of payees and (potential) payers.

Is Switzerland an R2P Nation?

Switzerland actually has already possessed a modern R2P infrastructure since 2018. That perhaps isn't overtly evident. But in conjunction with the launch of eBill, the Swiss digital invoice, SIX created a financial industry infrastructure that includes all of the core elements of a well-developed R2P solution:

— Payee-payer matching, i.e., a consent process for the delivery of R2P messages
— Delivery of R2P messages – in the form of invoices under today's eBill format
— An option for the payer to reject an R2P message or to approve it and pay
— Settlement of the payment via the SIC platform – efficiently and directly as an account-to-account transaction

All of this takes place in an ecosystem designed to ensure maximum security, dependability, and transparency in the interest of the user community.

Modernizing Direct Debits

With the eBill platform, Switzerland's financial industry possesses an infrastructure that can be developed in a variety of different ways. SIX is currently investigating to what extent an eBill-based solution can standardize and replace today's popular direct debit schemes to bring them into the modern era. Accordingly, plans are afoot to outfit eBill with two additional features that are key value drivers of direct debits today:

— The activation of payment withdrawals of an unalterable predetermined amount on a set date – this is a core function for steering corporate cash flows.
— A chargeback function that protects payers from wrongful debits, similar to the safeguard that credit cards offer today.

The final decision on whether to implement these features is expected to be made by mid-2022.

In the end, the consumer decides how the purchases end up in the shopping bag.

THE Strategic Question: How Does the eBill Platform Play with Instant Payments?

Instant payments will become available on the market in Switzerland starting in mid-2024. Looking ahead to the next 20 years, the question of whether and how the eBill infrastructure is to interact with instant payments is thus very important. In more specific terms, should the eBill infrastructure support instant payments in the future and also be deployed as an R2P mechanism for POS and e-commerce transactions?

Designing with Foresight

Many of the formative achievements that have shaped our world were accomplished through clear visions coupled with implementation acumen and political savvy. The same goes for the Swiss payment transaction system of tomorrow. On top of that, we need the courage to seek simplifying solutions and, above all, we need the broad support of all stakeholders involved. Because in the end, they're the ones who will determine whether the introduction of instant payments and an eBill infrastructure geared to facilitate R2P will be successful.

Thierry Kneissler, strategy consultant, advisor, investor, and co-founder and former CEO of TWINT, calls instant payments “revolutionary”

You recently said that instant payments would become a game-changer. Who benefits from having payments settled within seconds? First, private and business customers. Today’s way of settling a payment simply no longer befits a digital world where everything happens in real time. That’s why we have to get by today with card systems that harbor countless sources of errors. Sending and receiving money should be as easy as using e-mail or WhatsApp.

Second, businesses have problems today because payments get settled with a time delay. Intermediaries jump in to fill this gap and make money on providing this service, creating unnecessary costs for businesses and, by extension, for the entire economic system.

And third, banks, in my opinion, would be the biggest beneficiaries – at the expense of international card organizations because bank accounts would move back to the center around which customer activity revolves, creating a dream combination from a strategic standpoint: They are moving back into close proximity with customers. And a major competitor is tied back.

What expectations do you pin on Request to Pay (R2P)? I view this process as an essential puzzle piece needed to make instant payments work in the everyday world. Putting the requisite R2P infrastructure in place is one thing. But it is even more important for banking systems to universally allow instant payments. Only then will widely applicable use cases come into being.

Payment infrastructures are cost-intensive. Several of them already exist in tiny Switzerland. What should be done? The answer is simple: a single real-time network to which all parties are connected. After all, we also have one telephone network, one electricity grid, one railway network, and one internet. A first step could be to bundle things that thematically belong together: invoices (eBill and direct debits), account-to-account payments (SIC and TWINT), and credit card payments (credit, debit, and ATM).

We nevertheless are spoiled for choice when it comes to paying. How should stakeholders organize themselves to turn a payment procedure into a commodity? Today’s payment methods hold a too dominant position, one that instant payments probably will lessen to a great degree. Not all of today’s players have an economic interest though in seeing payments become a commodity. As for Switzerland specifically, in the years ahead banks and SIX will have the opportunity to set the standard of tomorrow with instant payments. But to do that, they actively have to get businesses, big corporate customers, and regulators on board. If they don’t, instant payments will never catch on.

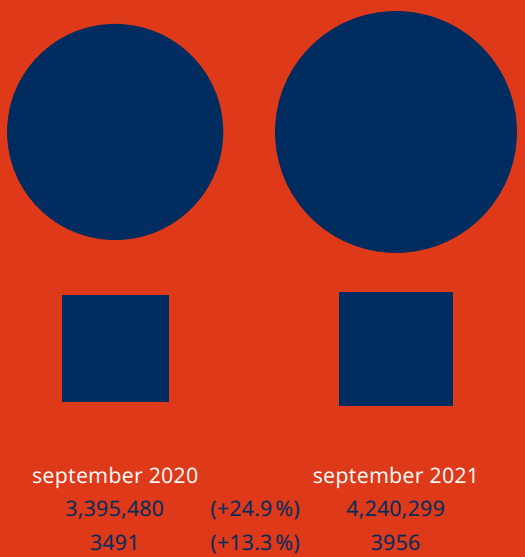
TEXT
GABRIEL JURI

eBill is growing at a double-digit rate annually and today reaches more than half of all Swiss households. The regions vary considerably as to the degree to which the potential is realized.

Number of eBill transactions and invoice issuers

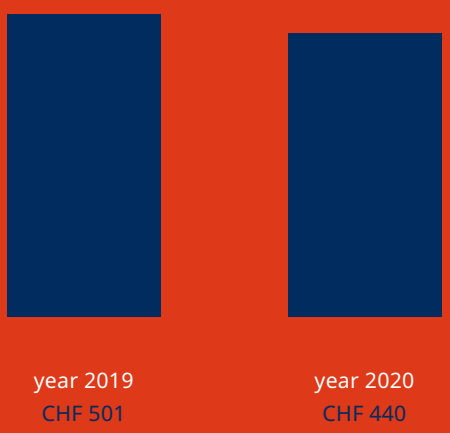
Transactions
Invoice issuers

Data collection
SIX



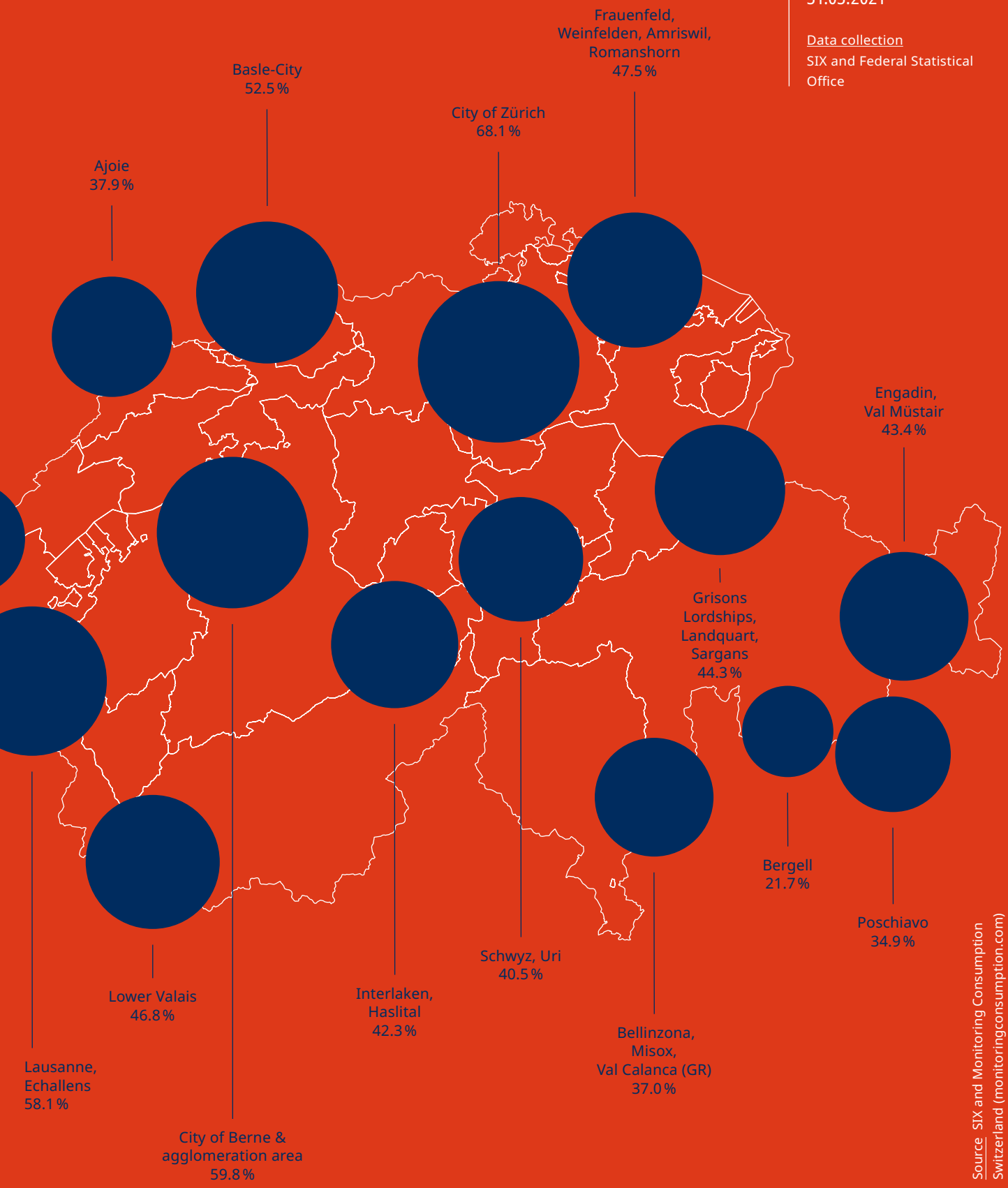
eBill volume per transaction

Data collection
SIX



eBill usage measured against the households in the regions in % on 31.03.2021

Data collection
SIX and Federal Statistical Office



Source SIX and Monitoring Consumption Switzerland (monitoringconsumption.com)

Boundless Euphoria

TEXT
SIMON BRUNNER

An on-site visit to Yokoy, which specializes in one of the world's most boring subjects (corporate expenses) and is making quite a splash with that.

Is there a hotter startup at the moment than Yokoy? The company was a winner at the 2021 Swiss Fintech Awards, a winner on the Höhle der Löwen TV show, and a finalist at the 2021 Swiss Economic Forum, to name a few accolades. Although the startup was entered in the Swiss commercial register only a short while ago in 2019, Yokoy already has a list of laurels that stretches longer than the average business expense account report. In an uncharacteristically euphoric portrait of the company, the Swiss daily NZZ raved about the "hype" surrounding the Zurich-based startup and unabashedly compared Yokoy CEO and co-founder Philippe Sahli to Steve Jobs.

Where the comparison is off base: In contrast to the public's common perception of Apple Inc.'s co-founder, Sahli is a downright warm and likeable person. In his pronounced Bernese dialect, the 28-year-old greets us at Yokoy's headquarters in the Zurich Technopark and guides us to a conference room big enough for at least 200 people ("Sorry, I couldn't find anything smaller," he says). Yokoy co-founder and head of marketing Melanie Gabriel is also present. The entrepreneur from the canton of Nidwalden was named "2021 Innovator of the Year," and Bilanz magazine ranks her among the most influential "digital shapers" in Switzerland.

Where the comparison with the Apple co-founder rings true: Sahli, like Jobs, has a lanky stature. And Yokoy's ambitions have a Californian boldness: the company's declared goal is to attain a valuation of more than USD 1 billon by as early as next year. A unicorn, as startups of that size are called, hangs prominently in Yokoy's office premises – it was handcrafted by Gabriel's sister and father.

So, Yokoy is getting off to a flying start. But was does the fintech company actually do? "We began with expense account reports," Sahli says. "We greatly simplified them and digitalized them and, above all, we automated them. We can handle and process expense account reports up to 90 % without human intervention and can detect cheating with supreme reliability."

"A company's entire expenditure column actually works just like a business expense account," Gabriel adds. Yokoy covers every step of invoice processing today. Its software places orders with suppliers and will soon also manage digital subscriptions. And as a recent addition, Yokoy also now offers a corporate credit card option.

There are countless business expense management solutions. Yokoy stands apart from the competition through its use of artificial intelligence. "When an employee buys a croissant during a train trip, Yokoy books it as a meal expense, not as a travel expense," Sahli explains, "even if the bill comes from the Swiss Federal Railways company." The software,

Philippe Sahli and Melanie Gabriel have invoices processed with ease.

he adds, also knows, for instance, that a hotel room in Geneva is more expensive than usual during the Geneva International Motor Show and accepts somewhat higher lodging costs in such a case. "Only self-learning software is capable of recognizing those kinds of things," Gabriel says. Over time, Yokoy internalizes such patterns and can debit payments ever more efficiently and easily detect suspicious expenses.

"We can also process QR-bills," Gabriel continues. In Austria, she says, for some time now every receipt features a QR code, which our software has learned to read.

A traditional Swiss cowbell hangs in Yokoy's headquarters office. It gets rung every time Yokoy gains a new customer. No wonder the neighbors are a bit annoyed: the bell has already sounded over 500 times over the last two years for a range of new customers including Stadler Rail, Swissquote, On, Kägi, Pflanzer, and NZZ. The extraordinary thing about the Zurich-based startup is that it has financed its enormous growth almost entirely on its own. "In the early days we raised CHF 1.7 million from SIX and Swisscom," Sahli recounts. By autumn 2021, he says, Yokoy's workforce expanded to 80 employees in Switzerland, Germany, and Austria without a single additional franc of borrowed capital. In late October of this year, Yokoy raised USD 26 million in an international funding round.

Sahli has to bid us goodbye. He is flying to Greece for a wedding and a few days of rest and relaxation. "Well-earned R and R," as Gabriel says. Besides being in charge of marketing at Yokoy, the 32-year-old is also the head of corporate culture, which has to do with social aspects such as workforce diversity. Women make up 33 % of Yokoy's employee headcount, which is a relatively high figure for a technology company. Yokoy also has a few workers over 60 on its payroll, which is truly an exception in the world of startups. "It would be crazy not to tap their experience," Gabriel says. Since traditional financial firms are currently laying off older workers, "there are some interesting profiles out there on the market," confides the economics graduate from the University of St. Gallen, who wrote her thesis on the API economy.

Gabriel has always been interested and involved in an eclectic array of areas. During her bachelor's degree studies, she was in charge of a musical performed before 8,000 spectators, and later she founded a successful flea market platform for second-hand clothes. How in the world did she end up in the world of business expense accounts and receipts? "When our co-founder, Devis, first told me about Yokoy," Gabriel laughs, "I thought nothing could be more boring." But he ultimately convinced her. A platform like Yokoy can make life easier for a whole lot of people: business travelers, finance staff, human resources personnel, and managers. "And I said to myself, 'If I can get enthused about Yokoy, then the euphoria among people who know their way around expense management must be boundless.'"

Expense reporting in the blink of an eye – thanks to artificial intelligence.

Create eBill Invoices Easily

Required knowledge
— Application of the Implementation Guidelines QR-bill
— Knowledge of the use of alternative procedures

It can be assumed that digital invoices will replace the current paper invoices across the board over the next 10 to 15 years. These digital invoices, which are delivered without media disruption and have digitally structured information, can be paid securely by the recipients with just one click (or automatic approval). The choice of digital B2C invoice format is easy in Switzerland thanks to the established financial center standards "QR-bill" and "eBill," which are closely aligned. Software providers play a central role here in providing the best possible support for eBill invoicing.

Essential for the Future

Accounts receivable software that cannot create a digital invoice is therefore an "endangered species." Any software providers who have not yet recognized the signs of the times and do not have an eBill solution in their range should prepare themselves for this. Being part of this does not mean that software providers have to set themselves up as eBill service providers. eBill service providers are usually operational companies that process customer orders within an agreed service level agreement as their core business, as larger printing companies and financial institutions do, for example. However, it is a core competence of any invoicing software provider to provide their customers with an electronic message format for eBill invoicing.

Two Birds, One Stone

The discontinuation of red and orange payment slips by PostFinance offers software providers and invoice issuers the opportunity to create a QR-bill in a single step that also functions fully digitally as an eBill invoice. This turns the obligation into a free choice. At the same time, software providers and invoice issuers can kill two birds with one stone. Here are the two implementation strategies that involve the least effort:

1. Provide the QR-bill with additional information so that it can be converted into an eBill invoice by the eBill service provider, in line with the principle that "a QR-bill is also an eBill invoice."
2. The ideal solution – create an eBill directly in the eBill PDF/A-3 format standard from SIX.

The Simplest Option

Software providers who want to offer digital invoices but currently have other strategic priorities in software development can create eBill-capable QR-bills with minimal effort thanks to the "Alternative procedure" and "Invoice information" QR-bill fields. To do this, the most important information that the software manufacturer must fill in is the eBill ID of the invoice recipient (or usually the e-mail address in the case of private individuals) in accordance with the QR-bill standard. Such a QR-bill exported as a PDF can be directly and automatically converted into the eBill PDF/A-3 format by eBill service providers supporting this conversion service and submitted to SIX as a fully-fledged eBill invoice.

The Flexible Ideal Solution

For the submission of eBill business cases from an eBill service provider to the eBill infrastructure, SIX has standardized

Figure 2: eBill-capable QR-bill

a PDF/A-3 format, in which consistent care has been taken to demand only the attributes that are really necessary for the processing of eBill invoices. For this reason, the eBill PDF/A-3 is simpler than other eBill formats when it comes to creating exclusively Swiss eBill invoices with the existing fields and options. ZUGFeRD is internationally standardized but extremely comprehensive. The PDF/A-3 format is accepted by many eBill service providers and is therefore considered the ideal solution, as it is the most direct way to create streamlined eBill invoices.

Which Way Is the Most Suitable?

Software providers have a choice: either to create QR-bills with additional information or rely on the standardized eBill PDF/A-3 format from the very beginning. The decision depends on whether they want to quickly become eBill-capable with minimal effort but with limited usage options, or whether they want to go

Figure 1: Additional information that makes a QR-bill eBill-capable

Necessary additional information	Field on QR-bill	Example content on QR-bill
Identification of the eBill invoice recipient (Example: **max.muster@example.com**)	Alternative procedure — Designation: eBill/B/	eBill/B/**max.muster@example.com**
Invoice number (Example: **10201409**)	Invoice information — Designation: /10/	S1/10/**10201409**/11/181105/40/0:30
Document date (Example: **05.11.2021**)	Invoice information — Designation: /11/	S1/10/10201409/11/**211105**/40/0:30
Due date (Example: **30 days** payment term from document date)	Invoice information — Designation: /40/0:	S1/10/10201409/11/181105/40/0:**30**

Konto / Zahlbar an
CH71 3000 5233 7000 0070 N
UBS Optimus Foundation
Augustinerhof 1
8098 Zürich

Referenz
29 99990 00000 00000 01000 00012

Zusätzliche Informationen
Auftrag vom 1.11.2018
S1/10/10201409/11/211105/40/0:30

Zahlbar durch
Max Muster
Musterstrasse 11
9999 Musterhausen

@example.com

straight to the more flexible but somewhat more complex strategic PDF/A-3 format during implementation.

PETER RUOSS
PRODUCT OWNER PAYMENT SOFTWARE RELATIONSHIPS, UBS SWITZERLAND AG

Further information
- Swiss Implementation Guidelines QR-bill (paymentstandards.ch)
- Specification on the Use of the Alternative Scheme eBill in the Swiss QR Code (eBill.ch)
- eBill technical documentation (eBill.ch)
- ZUGFeRD (six-group.com/pay-magazine)

EBICS 3.0 – As Simple as Possible, as Complex as Necessary

Required knowledge
- In-depth knowledge of the EBICS standard
- Prior knowledge of EBICS version 3.0

Over the last few years, EBICS has become one of the standard channels in the customer–bank interface in Germany, France, and Switzerland. Now Austria is joining too. With the new EBICS 3.0 version, the community should be able to grow even more easily.

With Payment Services Austria GmbH (PSA) joining the EBICS community in mid-2020, the Austrian financial center has now also become part of the continually growing EBICS community. The planning work for the switch to EBICS is already in full swing, and the experts at PSA are actively involved in the maintenance and further development of the standard.

Reliability, security, and stability, in addition to multi-bank and multi-vendor compatibility, distinguish EBICS as a standardized communication channel.

However, EBICS is not only used at the customer–bank interface, but market infrastructures such as those of the Deutsche Bundesbank and EBA Clearing also rely on the qualities of EBICS for their SEPA services.

More Flexibility

EBICS 3.0 now represents an important step towards combining these advantages with the desire for more flexibility in offerings.

The central element of the EBICS version is the Europe-wide standardization of the designation system for the description of the transmitted business data by the new Business Transactions Format (BTF).

With BTF, there is a clear separation between the EBICS protocol and the description of the payload (business data) by metadata.

While the existing protocol-specific order types (administrative order types such as HKD and HPD) have only been adapted to support BTF, the EBICS community has completely replaced the functional order types of version 2.x with two new administrative order types for the respective upload (BTU) and download (BTD) of files.

The two order types provide a <Service> data structure for the metadata for the functional description of the content of the file to be transmitted. For this, generic parameters are provided for with <Service>.

The focus is on the mandatory <ServiceName> parameter, which is initially used to assign the file content to a specific subject, and the second mandatory <MsgName> parameter, which specifies the message type.

The <Scope>, <ServiceOption>, and <Container> parameters can be used to further specify the file content if required.

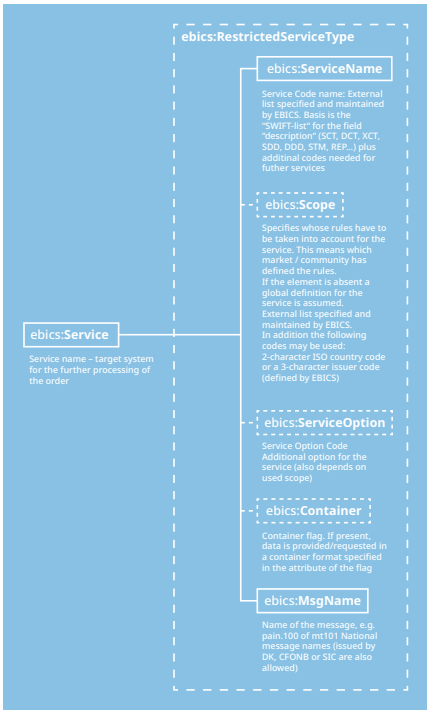


Figure 3: Data structure service

Why This Apparent Increase in Complexity?

One answer is that with the increasing spread of ISO 20022, file contents can no longer be clearly identified by a message type. For example, the pain.001 payment message differs significantly in its structure and applicable processing rules depending on whether it was created according to SPS (Swiss Payment Standards), SEPA, CGI (Common Global Implementation), or other market practices. Another example is the camt.05x messages, which the various financial institutions now provide in numerous forms.

The second answer is that the designation systems, which are based in Germany, France, and Switzerland, should be unified and expandable, so that the standard can more easily establish itself in new markets (as is currently the case in Austria).

And if a bank does not need all this because it only has a simple, straightforward offering anyway?

The originators of the BTF concept have also considered this. In most cases, the specification of two or three parameters is sufficient to be able to identify the data contents with EBICS 3.0. However, anyone who wants to serve more complex system landscapes or use a finely granular service can also implement this with BTF.

In EBICS 3.0, the principle of "as simple as possible, as complex as necessary" thus applies.

ALBERT APOLLONER & MARTIN WALDER, BILLING & PAYMENTS STANDARDS, SIX

EBICS 3.0 – Why Not Do Everything with APIs?
When new technologies are introduced, people often ask whether existing technologies are now obsolete. In many cases – including EBICS – the answer is not an "either or" but an "it depends." Especially with large data volumes, a large number of files, and the use of EBICS-capable standard software, EBICS is an efficient and favorable solution – for banks as well as for end customers. However, if the goal is to retrieve current data most quickly or immediately initiate an order, then API-based solutions are clearly the better choice. APIs are also essential for integrated workflows, as found in open banking ecosystems. Regardless of the technology chosen, both solutions allow banks to offer their customers a variety of digital services and to better respond to their needs.

From Account Reporting to Instant Payment Reporting
While payment transactions and account reporting were the main application areas of EBICS at the beginning of 2006, the tool has expanded to all areas of financial data exchange in recent years: from electronic bank documents to securities data. Currently, individual banks are implementing the processing of digital invoices and the tracking of payments via SWIFT gpi. The implementation of Electronic Bank Account Management (eBAM) is also planned. But EBICS is also prepared for future developments: for example, generating real-time notifications with WebSockets. This allows banks to actively inform their customers about the provision of their data in EBICS, which particularly enables interesting application possibilities in instant payment reporting and more. With EBICS 3.0, banks now have a powerful standard at their disposal to offer additional services such as the planned "eBill for Business Software" quickly and easily. The transition from order types to the Business Transaction Format (BTF) enables market participants to easily expand the offering in a structured way, in line with the general and local EBICS regulations.

Tim Veyhelmann, Connectivity Services, UBS Switzerland AG

EBICS 3.0 – Migration Made Easy

Required knowledge
— In-depth knowledge of the EBICS standard
— Prior knowledge of EBICS version 3.0

EBICS has established itself as a multibankcapable customer–bank communication standard not only in the member countries of the EBICS SC but also practically in the entire SEPA area.

With this diversity – with different order types to boot – a migration from the EBICS 2.x version to the harmonized EBICS 3.0 must be well prepared by all parties involved.

The common goal is to keep the changeover effort for customers, software manufacturers, and financial institutions as low as possible. The effects of EBICS 3.0 on existing end customer contracts must also be taken into account. Against this background, and also in view of the experience gained from the trial phase since 2017, the EBICS community adopted revised version 3.0.1 of the specification with prac-

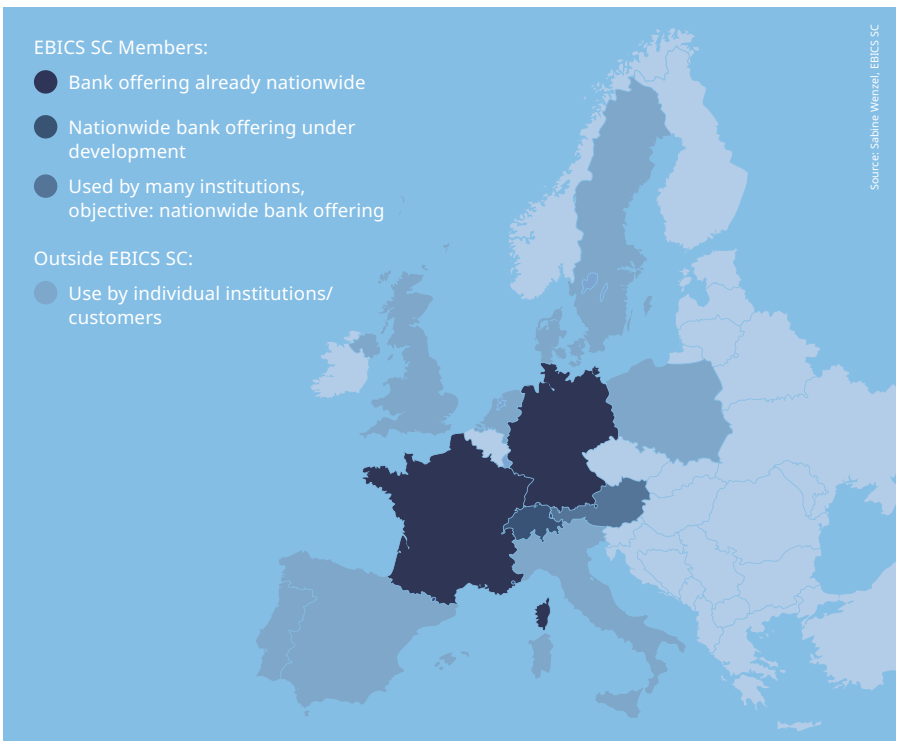


Figure 4: Diffusion of EBICS in Europe

tice-oriented improvements in February 2021.

This has also led to an update of the Swiss Market Practice Guidelines, which were recently published.

The focus of the revised version is on EBICS initialization, which must be carried out at the start of every business activity between the customer and the bank. This standardized process is also suitable for the adjustment of a customer relationship, and normally takes only a few days. Now, with EBICS 3.0, the X.509 certificate for key transmission is being introduced in Switzerland. It has mainly been used in France so far. The certificate allows the hash value for the verification of the public keys in EBICS 3.0 to be formed differently. The hash value is calculated using the entire X.509 structure (certificate) instead of only using the public key as before. Consequently, thousands of active EBICS contracts in Switzerland will have to be reinitialized during a migration to EBICS 3.0. For customers who already work with Distributed Electronic Signature (Verteilte Elektronische Unterschrift, VEU), multiple EBICS users would even be affected per contract. In order to prevent this, the EBICS working group of SIX has defined a rule specifically for the migration to EBICS 3.0.

Specific Migration Rule

For existing keys created with an older EBICS version, a reinitialization with the X.509 certificate is only required if the length of the keys is smaller than 2048 bits. In this case, the working group recommends updating the existing keys to a key length greater than or equal to 2048 bits before migration.

Since November 15, 2021, the EBICS working group of SIX has recommended, with the latest Swiss Market Practice Guidelines, that Swiss financial institutions expand their EBICS customer offering with EBICS 3.0. As this 3.0 specification was already published by the international EBICS community in March 2017, it is not new territory for software manufacturers. It can therefore be assumed that most EBICS solutions are already technically operational. The number of EBICS server products used by the banks here is manageable, coordinated, and mostly ready for use. The situation with corporate customers is much more complex. More and more client products on the market significantly contribute to the success of EBICS as a transmission protocol but also lead to a greater variety of customer software solutions. It is important for banks to keep an eye on this.

This rule means that the migration between the client (customer) and server (financial institution) is automated in the best case and does not require any increased support effort from the parties involved.

Migration Example from the Customer's Point of View

Prerequisites for a successful migration include a signed contract document for the use of EBICS 3.0 and that the customer has a software that supports this. The customer's EBICS user carries out the changeover by selecting the "Changeover to EBICS version 3" function in their software for the EBICS contract concerned.

The software then carries out the changeover automatically and performs the following steps:

— It checks whether the financial institution's server supports EBICS 3.0.
— If the key length is less than 2048 bits, it triggers a key change request with a key length greater than or equal to 2048 bits.
— It downloads and stores the bank keys and participant data.
— It saves the EBICS version used and transfers the contract to version 3.0.
— It informs the user about the successful changeover, with detailed information if necessary.

In this way, the changeover takes place at the push of a button within seconds without the need for support on the financial institution's part, meaning that business transactions can continue without interruption. In order for this scenario to occur, financial institutions and software manufacturers should inform their customers about the EBICS migration. In many cases, this has already been done in Switzerland. Whether the migration will work so smoothly for all customer software products used depends to a large extent on the implementation of the special migration rule.

First-Time Initialization

The new X.509 certificate must be used for the initialization of a new customer relationship. Attention must be paid to the following key points:

— The initialization takes place in Switzerland in accordance with the EBICS 3.0 standard, which requires the X.509 certificate for the registration of new keys.
— The certificate for this can either be self-signed or issued by a certification authority.
— Only the X.509 format is mandatory.
— The validity date of the certificate is always checked, but can contain any valid date value (unrestricted = 9999-12-31).
— Further checks (e.g., CRL), as required for order type H3K, are not performed.
— Order type H3K will not be supported in Switzerland for the time being.

With the completion of the preparation phase of the last few years, the parallel phase with EBICS 2.x and EBICS 3.0 started on November 15, 2021.

It is important for customers to note that the availability of the new version must be coordinated in each case with the individual financial institutions.

With the introduction of EBICS 3.0, the mandatory support of EBICS version 2.4 will expire and is from this point on no longer a version officially supported by the Swiss financial center. Version 2.5, on which the majority of the current EBICS offers from the financial institutions are based, will be officially supported by the financial center for another three years (until the end of 2024).

The start of the EBICS parallel phase is also aligned with the challenges of the ISO 20022 version change from 2009 to 2019, which will take place as of November 2022 and make the use of EBICS 3.0 mandatory. The financial center thus has one year to convert the EBICS customer contracts.

CLAUS HALBHERR,
FINANCIAL MESSAGING & 3RD PARTY SYSTEMS, SWISSCOM

Zürcher Kantonalbank is the first bank in Switzerland to pilot ATM cash management services from SIX that help significantly optimize ATM replenishment thanks to artificial intelligence.

Further details
six-group.com

Traction for bLink

In addition to Klara Business AG and the financial institutions UBS, Credit Suisse and Zürcher Kantonalbank, the business software providers Bexio, SwissSalary, Counteo, and Limmobi also joined the Swiss OpenFinance platform in November 2021. Following the go-live of the St.Galler Kantonalbank's OpenWealth API (see p.18), bLink continues to gain momentum.

Further details
six-group.com

Rapid Changes in Payments

By 2025, more than a quarter of cashless transactions worldwide will be made through instant payments and electronic money payments. This forecast is announced by Capgemini as a result of a global survey. This compares to 14.5 percent in 2020.

Further details
capgemini.com

950

For thousands of years, salt was one of the most sought-after commodities. In 18th-century Transylvania, mining this “white gold” was the second most important source of income for the state after taxes. Salt (salarium – salary), which Roman legionaries received as wages, was considered a unit of currency and a means of payment in countries like Pakistan. The value of Ethiopian salt ingots weighing up to 950 grams was also based on the distance from the salt mines. Salt still plays an important role in food and the chemical industry. It was only thanks to the salt discoveries in Switzerland that the chemical industry was able to establish itself here.

Is ATM Pooling the Future of Cash Provision?

Cash is king. Who isn't familiar with this saying? In Switzerland, though, physical cash was dethroned as the most frequently used means of payment this year by debit cards. Physical cash has fallen from first place in other countries as well.

The declining number of transactions has made it imperative for financial institutions to operate their automated teller machines (ATMs) more efficiently. The name of the game is to lower costs while at the same time ensuring unchanged, widespread ATM availability and high service quality for their customers. The answer to that challenge is the worldwide trend toward pooling ATMs. The largest banks in the Netherlands and Belgium respectively decided to merge their ATM networks through joint ventures under the new brands Geldmaat (in the Netherlands) and Batopin (in Belgium). In Brazil, TecBan has taken over most of the ATMs installed in non-bank locations while banks continue to look after the bulk of the ATMs installed at their own branches.

This enables banks to prune their networks in line with demand, to standardize hardware and security features, to shorten money transporters' delivery routes, to obtain bulk discounts on equipment purchases, and to reap economies of scale through the centralized operation of ATMs. Even though the Belgian network has been downsized, 95 % of the country's population has an ATM nearby less than 5 kilometers from home, which is a higher percentage than before pooling was instituted.

There are very few banks in Switzerland today that can visualize giving up their own brand. However, neobanks are an example that strikingly illustrates that customers consider access to physical cash to be more important than the brand name on the ATM. It remains to be seen in the months ahead whether the majority of Swiss financial institutions will discover the pooling model as a strategic alternative, will opt to steer a middle course by merging the operation of ATMs in non-bank locations like in Brazil, or will continue to want to operate their ATMs themselves. As an infrastructure service provider, SIX advises on this process and provides a discussion platform.

TEXT
ALEXANDER VERBECK,
HEAD CASH ECOSYSTEM, SIX

OpenWealth Is a "Killer Feature" for Global Wealth Management – A Vision with Swiss Roots

At the end of 2019, EU PSD2 legislation required banks to provide interfaces through which third-party financial service providers can access payment account data. This is intended to create a new ecosystem of account information and payment services that will strengthen innovation in financial centers. International competition with high momentum has emerged from the initial obligation – with potential far beyond the application possibilities of PSD2.

This is also the case in Switzerland, but, in contrast to the EU, on a voluntary basis, with industry initiatives defining the interface standards. The advantage is that Swiss standards reflect actual demand on the market. A prime example of this is "OpenWealth," a wealth management initiative launched by St.Galler Kantonalbank in collaboration with the consulting firm Synpulse. Organized as an association, the OpenWealth community is growing continuously, with new and international financial institutions and fintechs

joining in. The association has now submitted its standard to The Berlin Group, a recognized European initiative for establishing interface standards in the EU. And it is also positioning itself on the Asian open finance and wealth management market.

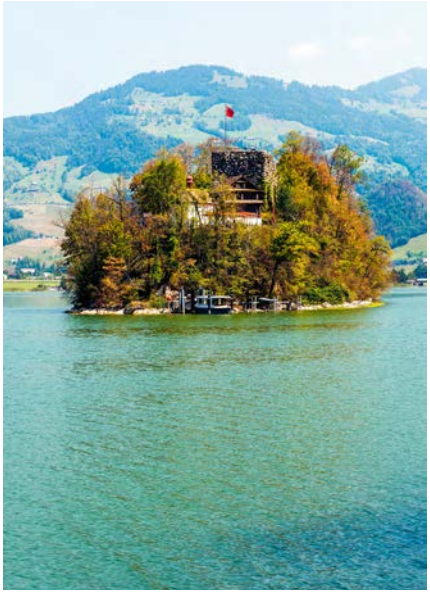
In the same sense that PSD2 has created momentum for account and payment services, OpenWealth holds enormous potential for the emergence of a global ecosystem relating to wealth. One important difference: OpenWealth has emerged in Switzerland. This is thus a unique opportunity for the financial center to serve as an incubator for innovative fintechs and further expand its global leadership in wealth management. This will require efficient scaling of interfaces and banks willing to cooperate with fintechs to develop new solutions, opening the door for a new wave of innovation – thanks to OpenWealth.

TEXT
SVEN SIAT,
HEAD ECOSYSTEM CONNECTIVITY, SIX

Switzerland Is Not a Lonely Bastion of Cash

Recent surveys on payment behavior in Switzerland yielded baffling findings. They revealed that although usage of physical cash for daily shopping has decreased considerably in recent years, cash remains a favored means of payment for the Swiss, even in the midst of the COVID-19 pandemic. They continue to use banknotes and coins roughly as frequently as they use debit cards, according to the latest surveys by the Swiss National Bank and the Swiss Payment Monitor published jointly by the Zurich University of Applied Sciences and the University of St.Gallen.

But in international comparison, Switzerland is far from being a "lonely bastion of cash." In 2019, 73% of all payment transactions at points of sale (POS) in the Eurozone were conducted in cash, according to the European Central Bank. While cashless payments account for the majority of transactions in Finland and the Netherlands, that's not the case in Switzerland's neighboring countries. The share of cash transactions registered in Italy stands at 82 %, followed by Austria at 79 %, Germany at 74 % (in 2017), and France at 59 %. By way of comparison, in Switzerland, cash was used for 70 % of all transactions in 2017, according to the Swiss National Bank. By fall 2020, this share had fallen to 43 %.



Switzerland is not an island in terms of cash use.

The differing payment behavior in Europe appears to have little to do with payment infrastructure. Italy, with over 50 POS payment terminals per 1,000 residents as of 2018, is far ahead of other countries like the Netherlands according to the Bank for International Settlements. Cashless payment infrastructure in Switzerland is likewise better developed than average in international comparison – Switzerland is in third place with almost 40 terminals per 1,000 residents.

The continued mass usage of physical cash in many countries in Europe thus appears largely to be the result of consumer choice. Despite the dissemination of contactless cards, consumers still pay predominantly with coins and banknotes when making small purchases. It remains to be seen whether the trend toward cashless payments in Europe, and Switzerland especially, will accelerate significantly after the pandemic.

TEXT
PROF. MARTIN BROWN,
UNIVERSITY OF ST. GALLEN

Money is responsibility.

Walter Hasenclever (1890-1940)