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Edition 83

## The QR-bill Has a Lot of Potential for Visually Impaired

Interview with Daniela Moser,  
Swiss association for the blind  
and visually impaired (SBV)

Digital Wallet  
Meets the QR-bill

2022: ISO 20022  
Marks a New Era

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##### FRONT PAGE

Daniela Moser, Swiss association for  
the blind and visually impaired (SBV)

# Dear Readers

How is the future created? Matthias Horx, future researcher, gets right to the point. The future is created when we change ourselves in response to the changes of the world, when the society grows beyond itself and reinvents itself. Instead of making a prediction, I would like to follow these thoughts and take a glance from the future 2021 to the present 2020.

Especially at the beginning of a crisis, many people are driven by fear. With time, they realize that the special circumstances give rise to new possibilities and freedom to act.

Due to the crisis, the financial industry as well as the whole national economy have been activated unintentionally and challenged to adjust processes and business models and to develop new systems and procedures. The existing basis of automation and digitization made it possible for many companies to build on and further develop existing solutions. Therefore, digital technology has become a cultural technology much faster – remote working, but also improvisation and flexibility. The companies and their production processes have adapted to the new circumstances in a very short time. Local productions are booming, local skills and competencies are in greater demand again. The global system has moved towards the local system. Having withstood together, we could get started from uncertain times strengthened and united. I am proud to be part of this well-functioning society.

As Head Payment Services at Credit Suisse (Switzerland) Ltd, I was really pleased to see that the stability in payment transactions was ensured at all times and the banks proved to be strong partners, especially for the companies. Within a short period of time, the financial support packages were made available, which is comparable around the world.

What kept us as the financial center busy in 2020? The introduction of the QR-bill is a good example of how new possibilities to optimize the processes for invoice issuers arose from a foreseeable switchover necessity. Moreover, the QR-bill has contributed in a great way to digitizing the invoicing and payment process.



TWINT and contactless payments with debit and credit cards have undergone a pleasing boom. I am happy to see that today I can pay in small farm shops via TWINT and that the newly created “take-away/eat-to-go” offers of various restaurants now also go for this payment method.

I am looking forward with you to an exciting and positive future and present, together and united as the Swiss financial center which has proved to be even more stable and adaptable when viewed from the future.

A stylized, handwritten signature in black ink, consisting of several fluid, connected strokes.

**Alain Schmid**

Head Payments Services, Credit Suisse (Switzerland) Ltd

# Visually Impaired People Recognize a Great Deal of Potential in the QR-bill

*The Swiss association for the blind and visually impaired (SBV) has been assisting blind and visually impaired people in their effort to lead an independent and successful life in job and society since 1911. With the QR-bill, the association has come a little closer to achieving this goal. Daniela Moser is responsible for accessibility of cash and banking services and explains the reasons in the interview.*

**Ms. Moser, you work at the Swiss association for the blind and visually impaired and are affected by a visual impairment yourself. What is your stance on the QR-bill that will be available for use as from 30 June 2020?**

I see a great deal of potential in the introduction of the QR-bill. The process of scanning a QR code is easy, quick, and does not require much previous knowledge.

It takes just a little bit of training to learn how to scan a code with a smartphone. This is important for the roughly 377,000 visually impaired people in Switzerland.

**“The digital approach to invoices is certainly worthwhile.”**

**What do you and your members consider to be the biggest differences between the new QR-bill and the current payment slips?**

The biggest difference certainly lies in the simplified scanning process that the QR code offers as compared to the previous code line. This makes it easier to read in.

**How so?**

The complete code line must be visible in the smartphone's camera. It's very tedious and time-consuming to align the camera with the whole code line. It takes a lot of practice and accuracy. Some people attach their smartphone to a book stand to find a stable position for scanning. The QR-bill will certainly make this process a lot easier.

**Which features of the QR-bill are particularly useful to the visually impaired?**

The perforated separation of the payment section is



**Daniela Moser,**  
Swiss association  
for the blind  
and visually  
impaired (SBV)



useful, as it narrows down the position of the QR code and makes it easier to find. However, the greatest advantage is the QR code itself. It can be captured quickly by a scanning app, even if it is upside down.

**How did you inform your roughly 4,300 members about the QR-bill and what was the general tone of their feedback?**

We informed our members via a news ticker in January and are planning to include a further publication in the June issue of our members' magazine "Der Weg." We have not really identified a general tone so far. Overall, we are awaiting the introduction with a positive attitude.

**The SBV is collecting donations. Will your organization be a first mover and send out its calls for donations with QR-bills?**

The SBV's fund-raising campaign will not be one of the first movers. Unfortunately, the specific requirements of non-profit organizations that have to finance their services in great part with donation mailings have not been taken into account sufficiently in the development of the QR-bill. Donations are not invoice payments after all. This presents a great challenge to the SBV and all organizations based on donation mailings. The SBV will address the topic in cooperation with Swissfundraising and experts to identify solutions.

**“However, the greatest advantage is the QR code itself. It can be captured quickly by a scanning app, even if it is upside down.”**

**What will change with regard to the internal operations at SBV?**

We are currently not expecting anything to change with regard to our internal operations. The first experiences after the introduction will be relevant. There is always room for improvement. The digital approach to invoices is certainly worthwhile.

**What is your estimate in terms of the expenses you will be facing for the introduction of the QR-bill and what is and has been your approach to the conversion?**

The update of the accounting software is scheduled for June. It will create the access for reading in a QR code. We cannot estimate the necessary expenses.

**What role did the principal bank play as an information channel for the association, its members, and for you personally?**

The association has not received any information from



**HOW VISUALLY IMPAIRED PEOPLE WORK**

Many people who suffer from a severe visual impairment use what is known as screen reading software, or a screen reader, to work with a computer or smartphone. The most popular ones are Jaws for computers and Voice-Over for Apple smartphones. As the name indicates, a screen reader reads out everything that is happening on the devices. When text is input, it is read out, when a folder structure is opened, the names of the folders and files are read out, when a WhatsApp message is received, it is read out, etc.

People with a certain amount of residual vision use software that enlarges the texts and icons. Color inversion is also often helpful here. This way, visually impaired people who are also sensitive to glare read white text on a black background. Some people prefer yellow text on a blue background, depending on their visual impairment and residual vision.

the principal bank at this time. I personally have not received any input on the topic of the QR-bill either. I cannot judge the situation of the members of the SBV.

**How was the cooperation with your business software manufacturer?**

We have a very good flow of information here. They offered a webinar on the topic, announced updates, and executed them on schedule. We are satisfied with their support.

**The members of your association may be not only invoice recipients, but also invoice issuers. To what extent have their needs been taken into account?**

It is still unclear how the generation of QR-bills will be implemented as no solutions have been presented yet. There is a certain amount of uncertainty in the air because of this. We are excited to see how the market will develop.

**“Overall, we are awaiting the introduction of the QR-bill with a positive attitude.”**



**The SBV helps its members to lead a self-determined life. Do you think the QR-bill will contribute to this by assisting blind and visually impaired people on their path to independence?**

We are currently expecting that this will be the case, provided that banks make their e-banking and mobile banking solutions accessible. This is not yet the case at this time, but perhaps the shortcomings can be remedied in combination with the adaptations for the QR-bill. Feel free to contact the SBV, we will be happy to help.

**“We review existing solutions, give feedback on usability, identify solutions for problems, and communicate them to our members.”**

**Which shortcomings do you think should be remedied?**

Visually impaired people often fail to operate e-banking and mobile banking solutions because the buttons and/or links are not labeled correctly. If the correct alternative text has not been stored for a button, the screen reader mentioned above just reads out “button”. It is therefore not clear what the purpose of this “button” is. If an alternative text is stored, the screen reader reads out “trigger payment,” for example. This way, the person in question knows exactly what is happening. Contrast is also often an issue. Sometimes light gray text is used on a dark gray background. That’s illegible. Fonts with serifs are also unpopular because they make it more difficult to read information. We are testing and clarifying which shortcomings need to be fixed in the concrete case on a case-by-case basis.

**Will you incorporate the QR-bill and new digital payment options into your training courses?**

It has not yet been determined to what extent the SBV will provide tools for learning how to use QR-bills. We will certainly include information, descriptions, and useful tips on all communication channels. The rehabilitation experts at the consulting centers have to be familiar with the QR-bill in order to train clients if necessary.

**What services does the SBV offer to banks, software developers, and other companies?**

The SBV offers banks expertise with regard to the accessibility of banking services, in particular e-banking and mobile banking. We review existing solutions, give feedback on usability, identify solutions for problems, and communicate them to our members. Should problems relating to accessibility arise after updates are imple-

mented, we follow up on them. The SBV does not issue a certification, but we do prepare a test report. With regard to ATMs with voice output, the SBV offers the possibility of publishing the locations of the ATMs on the navigation app MyWay as well as in a search form on [www.sbv-fsa.ch](http://www.sbv-fsa.ch), which is still being developed, to enable visually impaired people to find the ATMs that are equipped with a voice output function. The SBV was involved in the development of the ATMfutura software, in particular the “Talking ATM” feature. We provide support with the development of software and offer advice on this topic to banks.

Interview:  
**Gabriel Juri**  
SIX

**CONCERNS OF THE SBV WITH REGARD TO PAYMENT TRANSACTIONS**

Daniela Moser is part of the special interest team of the Swiss association for the blind and visually impaired (SBV), where she is responsible for accessibility of cash and banking services in particular. The team advocates the collective concerns of blind and visually impaired persons in Switzerland. It advocates equal opportunities and accessibility in all areas of life and is a point of contact for authorities, companies, interested parties, and for persons suffering from a visual impairment in particular.

The banking services area comprises:

- Accessible e-banking and mobile banking solutions
- Talking ATMs with a headphone jack
- Training of front desk employees with regard to visual impairments
- Further concerns on the part of banks and software providers

Talking ATMs (important requirements)

- It should be possible to switch off the screen when using the voice output (= Discretion)
- Immediate termination of the transaction as soon as the headphones are removed (= Security)
- It must be possible to regulate the volume (e.g. via the keyboard) (= Ambient noise)
- Don't forget a contrasting design of text and screen

Contact: Daniela Moser [daniela.moser@sbv-fsa.ch](mailto:daniela.moser@sbv-fsa.ch)

# QR-bill – the Countdown Is On

*There's only one month left until the first QR-bills are put in circulation. The Swiss banks are in the final run-up to adjust their e-banking and m-banking and prepare customers for the introduction. Software providers have ensured compatible accounting or payment software for thousands of companies. The post office counters are prepared, too.*





*As soon as the QR-bill is fully implemented, PostFinance will decide when the current payment slips will be withdrawn from the market.*

A thorough analysis carried out in April showed that for the vast majority of parties the preparations for being ready to pay with the QR-bill are already well advanced or even completed. In the meantime, many business software developers have delivered their most recent versions to the customers, and a number of invoice issuers will start sending the QR-bills from 30 June 2020 without a doubt.

#### **15 Per Cent**

This has been predicted since last December. Namely, already at that time a representative survey conducted by the public opinion and market research institute gfs. bern shown that 15% out of 1,700 companies or organizations had planned to start issuing QR-bills instead of payment slips as soon as possible. By the end of 2020, over a quarter of respondents will have undergone the switchover. This number is likely to decrease due to the corona crisis.

#### **Things Speed up at the End**

The products of over 120 software providers have been entered into the readiness list of PaymentStandards.CH. There are also almost 5,000 software versions published on this website which process pain.001 messages of bank customers. Financial institutions measure the readiness of their customers by comparing the information of pain.001 messages submitted to them with the list. Both lists are regularly updated and prove that the software industry drives the readiness of Swiss companies at high speed. It is some kind of regularity that could also be observed during the migration to ISO 20022 a few years ago – the closer the launch date, the faster the readiness makes headway.

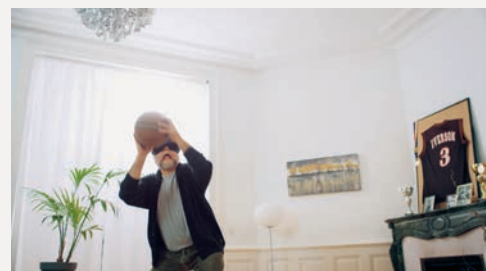
### Activating SMEs

The readiness of banks and software developers is of course not enough. All 600,000 companies in Switzerland should also understand that the QR-bill is not just something new for them to face, but something they need to prepare for actively. For this purpose, banks and the IT industry have been running an information campaign for almost a year. By means of circulars, mailings, customer newsletters, on the Internet, but also with ads and editorial content in regional papers, they have been drawing customers' attention to the implementation of the QR-bill. To top it all, SIX has been centrally running a nationwide advertising campaign online and in print. Trade journals have been publishing adverts and professional articles, whereas the large-scale online campaign has been focusing on essential target groups. This resulted for example in spreading banners and video clips in selected media in German, French and Italian from the beginning of February until mid-March. The message to SMEs was: prepare yourself for the QR-bill by 30 June! Only in this phase, over two million ads reached over 520,000 people in the SME environment.

### Post Office Counters Are Ready Too

Paying at the counter of a post office branch will continue to be possible just like with the payment slip so far. Even though the customer will notice no difference when paying, completely new processes are connected with the QR-bill. They have a significant impact on the complex system landscape of Swiss Post and PostFinance. Thus, at least 30 applications had to be adjusted for the launch to be carried out in time: from the counter application, through scanning and processing, to clearing applications within the core banking system. Three major and two medium releases were necessary with a total testing period of 25 weeks to make the introduction possible. Affected employees across the group have undergone training, with learning modules available in all languages. In addition, all affected forms and documentation have been adjusted accordingly. In spite of the corona crisis, the changeovers have been completed on time. This means that debtors who don't want to pay their QR-bills with a mouse click or a fingertip from home can still go to any post office counter in Switzerland. As of 30 June, the staff at the counter will accept not only payment slips, but also QR-bills.

One of three video clips for the launch of the new QR-bill. More at [pay-simple.ch](https://pay-simple.ch)



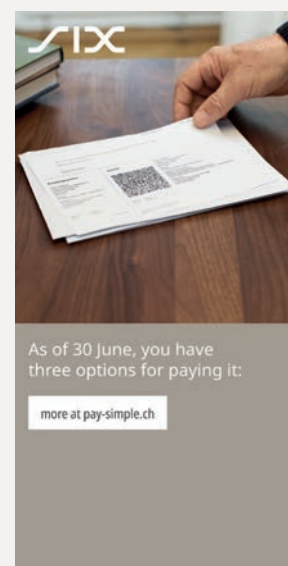
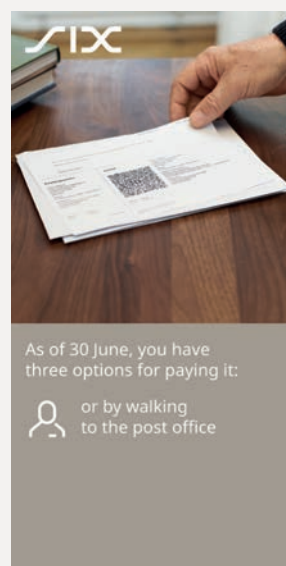
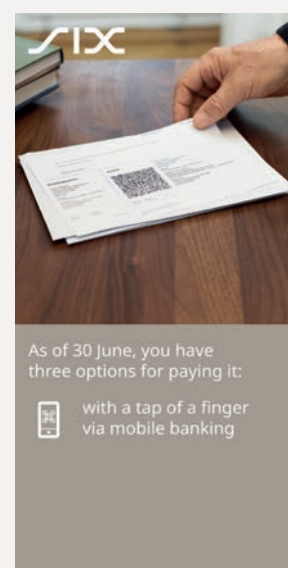
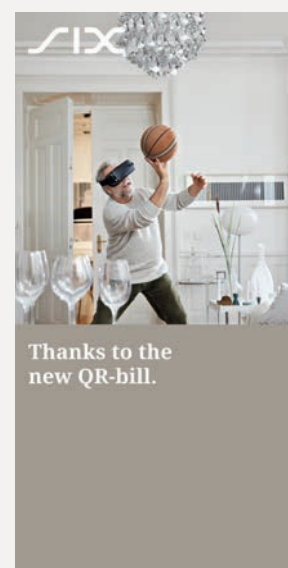
### Raising Awareness of the General Public

Using the QR-bill at home is far more convenient than marching to the counter. This is the message spread to the general public by means of the PR campaign launched at the beginning of June. The banners aim at raising awareness of private individuals on the QR-bill and present how to pay QR-bills in a simple and understandable way. All social media activities of the PR campaign lead to the new website [pay-simple.ch](https://pay-simple.ch). The website includes 50-second video clips introducing the QR-bill in an entertaining way. The campaign runs every day on dozens of online channels, such as [bluewin.ch](https://bluewin.ch), [beobachter.ch](https://beobachter.ch), [finanzen.ch](https://finanzen.ch), [letemps.ch](https://letemps.ch). Another media event to be carried out in June as well is aimed at spreading the news over classic media such as press, radio and television.

**Gabriel Juri**

SIX

### Sequence of one of animated banners for the general public



### SPEAKING OF DONATIONS

Hand-written messages like on the red payment slips are no longer possible with the QR-bill. These days, charitable organizations may receive the information as an image file and then have to interpret the handwriting, which is often difficult to read. This can lead to errors and manual post-processing. Many organizations are already drawing on the amount as an information carrier today. For example, an amount of CHF xx.20 can be a donation for a flower meadow and an amount of CHF xx.50 can be a donation for an orchard.

Aside from information on the donor, the amount can also be added manually with the QR-bill. As QR-bills are suitable for at-home printing, it is also possible to create payment sections with individual references for individual donation campaigns.

This is a huge advantage for charitable organizations, as they receive the credit information including the donor's information from their bank in digital form.





The TWINT QR code in action.

# Digital Wallet Meets the QR-bill

*TWINT is experiencing a boom as a hygienic payment method. An integration of the digital wallet as an alternative procedure in the QR-bill is aimed at. It is already possible to make mobile invoice payments via QR code with the TWINT payment app.*

TWINT has established itself as the Swiss standard for mobile payment over the last few years. With currently 2.5 million users and just under 107,000 acceptance points, it is the number 1 mobile payment system on the Swiss market. TWINT processes around 6 million transactions per month. One of the advantages is that TWINT can be connected directly to the bank account. 74 banks are on board now, that is the majority of the institutes that offer payment transaction services.

## **New Functions Planned**

The possibilities of mobile payment are nowhere near exhausted. TWINT is planning to launch further functions and services in 2020. TWINT will also offer even more possibilities for traders. Parking will also be more convenient. You can pay for the ticket without having to leave the vehicle. This is a useful function for people who park their car every day in particular. It is also possible to make purchases directly from within the app, for example with digital prepaid cards. The "Fast & Self-Checkout" function allows users to place orders at a restaurant from the table by scanning the QR codes of drinks and menus and paying for them immediately.

### **The Hygienic Payment Method**

The outbreak of the coronavirus pandemic in Switzerland at the beginning of March has put the flexibility of the economy and society to the test. Due to the strict hygiene regulations imposed by the Swiss Federal Office of Public Health, many people have had to adjust their habits at work and in their private life.

The coronavirus crisis has also affected the way that consumers make payments. Accordingly, there has been a significant increase in the demand for contactless mobile payment methods. The benefits are obvious: With mobile payment, you avoid contact with cash and it does not require you to enter a PIN number at payment terminals.

TWINT is benefiting from the new modes of behavior. On the one hand, the number of payments have doubled. On the other hand, the company is experiencing a great demand for its mobile payment solution amongst traders of all kinds, large and small. These developments show that TWINT is satisfying a need: contactless payment at the POS for which you simply have to hold your own smartphone. They also show that an increasing number of people are discovering online shopping and would like a mobile means of payment that they can connect to their bank account directly and which gives them the benefit of no longer having to input their personal payment information.

### **The TWINT QR Code**

Customers of telecommunications provider Wingo have been able to pay their bills via TWINT since March 2020. This is made possible by the TWINT QR code that the Swisscom subsidiary integrates directly in their paper and PDF invoices. This QR code simplifies the previous payment process using a payment slip: The customer opens the TWINT app on their smartphone, scans the QR code on the invoice, and confirms the payment in one step. There is no need to log onto e-banking and type in the long ISR number.

The automated payment solution with the TWINT QR code must not be confused with the Swiss QR Code on the payment section of the QR-bill that will be introduced throughout Switzerland from the end of June 2020 and will replace the previous red and orange payment slips successively. Thanks to the cooperation with Wingo, the range of functions of TWINT is expanded and the number of participating companies increases continuously. In the course of this year, this function is to be implemented for both variable and fixed amounts on individual payment slips of associations. This will allow them to collect their membership fees via an invoice using the TWINT QR code.



The use cases of TWINT.

### **Goal: Integration in the QR-bill**

TWINT aims to support its users every day and with every payment transaction and will therefore also be on board with the nationwide establishment of the new QR-bill. In addition to the eBill, the function of the TWINT QR code is to be integrated as a second alternative payment method in the Swiss QR Code on the QR-bill. As it is prohibited to print another QR code on the QR-bill, it is important that the TWINT QR code is combined with the Swiss QR Code. TWINT is therefore in close contact with various invoice issuers in order to reach a deal as soon as possible and to publish the specifications for the alternative method for the QR-bill.

**Andrea Walker**  
TWINT

### **THE DIGITAL WALLET**

TWINT functions as a digital wallet that can be used to make cashless payments in shops, restaurants, bars, and online shops, as well as to send and receive money. TWINT also digitalizes coupons. Upon their customers' request, traders can send target group-specific offers directly to their smartphones and offer discounts that are applied automatically upon payment. TWINT is also bringing loyalty programs like stamp cards and loyalty cards to the smartphone. They are stored in the TWINT app in a one-time process. The user can then enjoy the benefits for loyal customers automatically when paying with TWINT.

# 2022: ISO 20022 Marks a New Era

The year 2022 will be received as a milestone in the history of national and international payments. The whole world is switching over to the new version of the ISO 20022 standard.

Football World Cup and ISO 20022 will make history. For the first time, the most important trivial matter in the world is going to take place towards the end of a year in 2020. Less well known, but far more important from a payments perspective, is the worldwide introduction of the latest ISO 20022 version, right on the day of the opening match.

## It All Started with SIC

When the fourth RTGS generation (SIC4) was put into operation in the Swiss financial center in 2016, it was the first real-time gross settlement system which allowed participating financial institutions to process large-value payments based on the ISO 20022 standard. Moreover, the same system also serves as the Swiss ACH (Automated Clearing House) for the processing of mass payment transactions. At that time, it could not be predicted yet when the new standard would be established worldwide in electronic payment transactions. Almost four years later, all important international payment transfer systems have already been switched over to ISO 20022 or will be at a specified time. In addition to SWIFT, this includes the well-known clearing systems such as the American Fedwire and CHIPS, the British CHAPS, MEPS from Singapore and the European STEP2, TARGET2 and EURO1.

## New ISO 20022 Version Also in Switzerland

SWIFT and other important participants will switch their messages over to the current version 2019 of ISO 20022 as of November 2022. The clearing systems SIC and STEP2 (SEPA) currently use older ISO versions from the year 2009. For the purposes of compatibility, these systems will also switch to the 2019 version probably at the same time as SWIFT and other participants. Both interbank messages and customer-bank messages will be updated and feature not only compatibility, but many other benefits compared to the current version, such as:

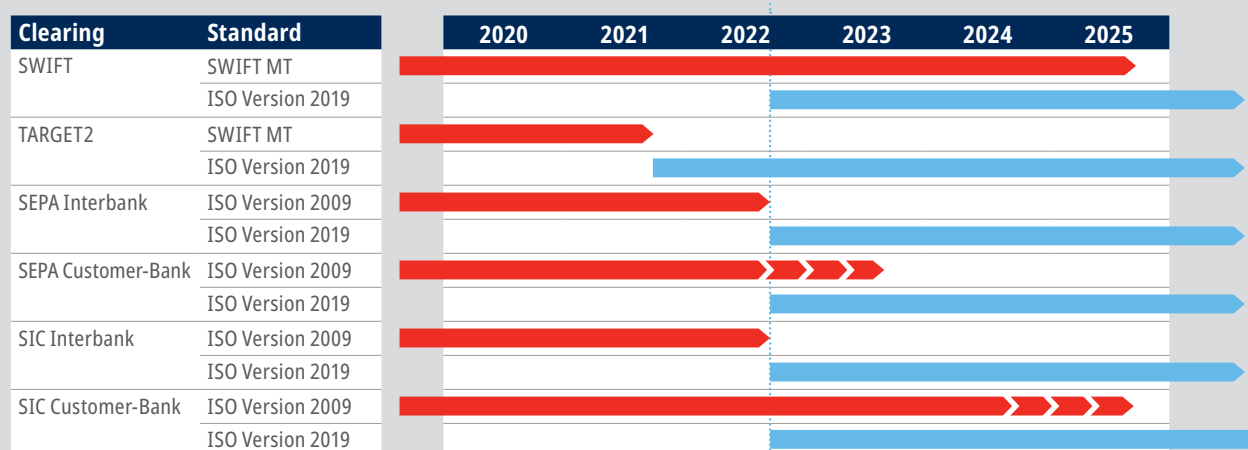
- new optional elements, e.g. UETR & LEI
- enhanced address elements
- enhanced remittance information
- timestamp for instant payment feature

This upgrade of ISO 20022 version will affect not only SIX (SIC) and financial institutions, but also producers of payment transaction software. Thanks to a multi-year transitional period, bank customers using a software for their payment processing have a large flexibility as to the date of switchover.

**Peter Ruoss**

UBS Switzerland AG

## Expected Roadmap of Switchover to ISO 20022, Version 2019

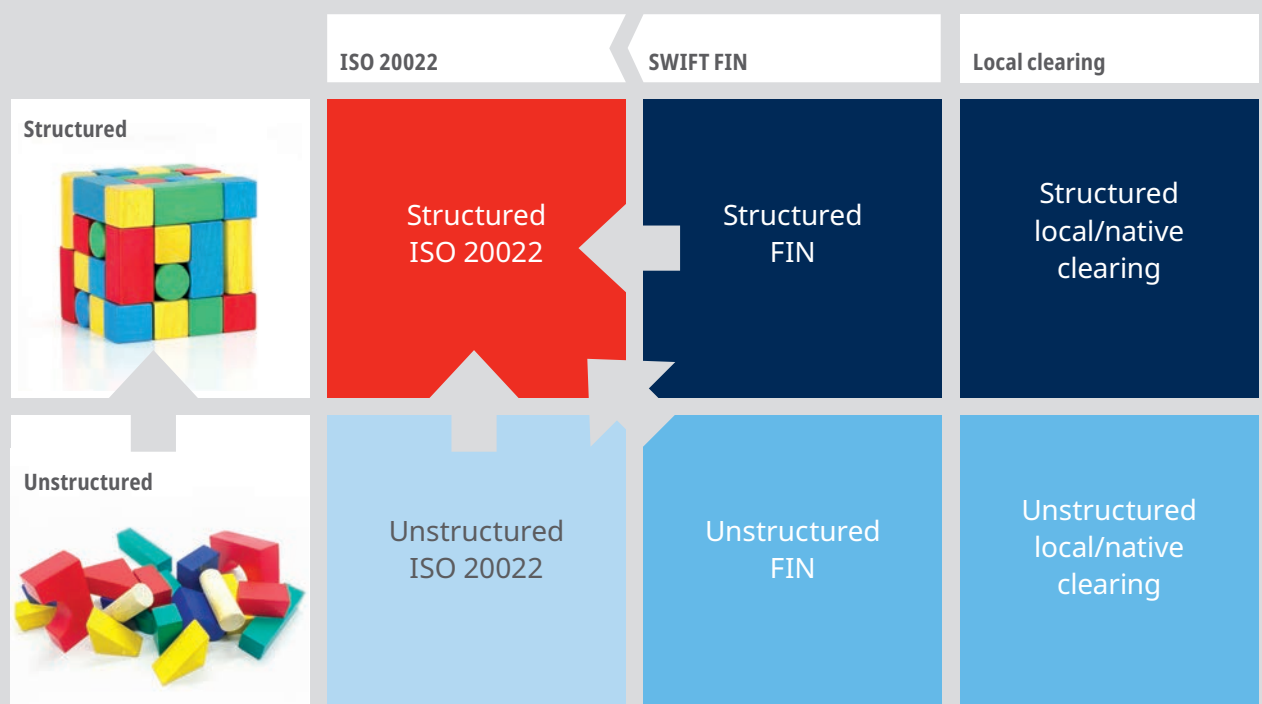




# Structured Addresses

Will structured addresses be binding also in Switzerland? The introduction of structured addresses in payment transactions have been discussed again and again for years – in Switzerland and around the globe.

Logical overview of the different format options and the ultimate target state



Source: PMPG – Structured ordering and beneficiary customer data in payments (Market Practice Guidelines).

The FATF (Financial Action Task Force), a global group of experts in combating money laundering, requires financial intermediaries to deliver full data records on debtors and creditors when forwarding payments. In Switzerland, FINMA has introduced this FATF “Recommendation 16” into the Ordinance on Combating Money Laundering and Terrorist Financing in Financial Sector (FINMA Anti-Money Laundering Ordinance, AMLO-FINMA) and transferred it into the legal framework. However, it does not say anything about the way this address data must be structured.

## SWIFT Makes the First Step

The Payments Market Practice Group (PMPG) of SWIFT, a global forum of payment transactions experts, including a Swiss representative, develops best practices for the global use of industry standards. Its aim is to shape the processing of payments in the most universal way possible and allow for a consistent customer experience. At the end of 2017, the PMPG created a whitepaper on the use of structured customer data to respectively raise awareness in the financial sector. Half a year ago, it published specific guidelines. Under the title “Structured ordering and beneficiary customer data in payments – Market Practice Guidelines”, it specified a schedule for the use of structured addresses, of course taking into consideration state-of-the-art developments on the market and the feedback of financial community.

Drivers in Switzerland

The situation in Switzerland is strongly dependent on general conditions and schedules specified by SWIFT and other market infrastructures, such as the European RTGS system TARGET2, for their switchover to the ISO 20022 standard. There are currently ongoing efforts and discussions with banks to analyze the impacts of individual systems and to develop an optimum requirement for customer-bank interfaces on this basis. In case of all initiatives, it is absolutely essential to comply with guidelines, requirements and formatting standards for the sake of international interoperability in the migration phase. So long as not all participants have switched over to the structured ISO format, there is a threat in mapping of unstructured data to structured

data and the other way round that field contents can be cut and order data may not be forwarded completely (truncation). This may lead to further questions and rejections causing complex manual post-processing at Swiss banks. It is thus of great importance for the Swiss financial center to ensure adequate planning to minimize those risks.

What Does a Mandatory Scheme Mean for the Financial Center?

Since the use of structured addresses is not yet binding in Switzerland, the existing products, channels and payment software are primarily not prepared yet to apply structured addresses in payment processing at the customer-bank interface.

Comparison between unstructured and structured address data

The Swiss financial center focuses on implementing structured addresses in the ISO format.

**Unstructured data**

Example: pacs.008 with unstructured «Postal Address»

```
<Dbtr>
  <Nm>JOHN SMITH</Nm>
  <PstlAdr>
    <AdrLine>HOOGSTRAAT 6</AdrLine>
    <AdrLine>PREMIUM TOWER</AdrLine>
    <AdrLine>1000 BRUSSELS, BELGIUM</AdrLine>
  </PstlAdr>
</Dbtr>
```

Name

Address lines 1-n  
unstructured text string

**ISO 20022 unstructured address**

Max. 7 lines (<AdrLine>) with each 70 characters (7x70)

**Structured data**

Example: pacs.008 with structured address elements

```
<Dbtr>
  <Nm>JOHN SMITH</Nm>
  <PstlAdr>
    <StrtNm>HOOGSTRAAT</StrtNm>
    <BldgNb>6</BldgNb>
    <BldgNm>PREMIUM TOWER</BldgNm>
    <PstlCd>1000</PstlCd>
    <TwnNm>BRUSSELS</TwnNm>
    <Ctry>BE</Ctry>
  </PstlAdr>
  <ID>
    <OrgId>
      <LEI>HB7FFAZI00MZ8PP80E26</LEI>
    <OrgID>
  </ID>
</Dbtr>
```

Name

Street Name

Building Number

Building Name

LEI (Legal Entity Identifier)

Postal Code

Town name

ISO country code

**ISO 20022 structured address**

- **Version 2009**  
7 elements and 1 ISO country code
- **Version 2019**  
13 elements and 1 ISO country code

Source: PMPG – Structured ordering and beneficiary customer data in payments (Market Practice Guidelines).

The following components of a payment are affected by the structuring:

| Components               | Action required  |
|--------------------------|--|
| <b>Debtor</b>            | <ul style="list-style-type: none"> <li>– All financial institutions must adjust/update the bank master data</li> <li>– Obligatory: full name, postal address or P.O. Box (at least the ISO country code and city)</li> </ul> |
| <b>Ultimate debtor</b>   | <ul style="list-style-type: none"> <li>– Adjustment of data in the debtor's ERP system</li> <li>– Obligatory: full name, postal address or P.O. Box (at least the ISO country code and city)</li> </ul>                      |
| <b>Creditor</b>          | <ul style="list-style-type: none"> <li>– Adjustment of data in the creditor's ERP system</li> <li>– Obligatory: full name, ISO country code and city of the creditor</li> </ul>  |
| <b>Ultimate creditor</b> | <ul style="list-style-type: none"> <li>– Adjustment of data in the debtor's ERP system</li> <li>– Obligatory: full name, ISO country code and city of the creditor</li> </ul>  |

Additional details in the Remittance Information, such as invoice issuer and invoice recipient, are also affected by the structuring requirements. If the address is necessary to identify a participating financial intermediary in a payment, these details should also be delivered in a structured format.

#### Quo Vadis

In April 2020, the "Structured Addresses" taskforce was assigned a task to shed light on the comprehensive requirements related to structured addresses and develop recommendations for action. In addition to the representatives of such financial institutions as Credit Suisse, PostFinance, Raiffeisen Schweiz, UBS and ZKB, the taskforce also includes the operator of the Swiss RTGS system (SIX) as well as software providers and business customers. The taskforce will be analyzing the general conditions and impacts on various payment methods and payment flows within the Swiss payment transactions until the end of June 2020. On this basis, it will outline the next steps for the assessment and approval by the Payments Committee Switzerland (PaCoS) and subsequently for the approval by the Board of Directors of SIX Interbank Clearing Ltd. Switzerland will most likely follow the schedule and requirements of SWIFT. The different variants and detailed schedule are still to be discussed.

**Daniela Hux-Brauss**

Credit Suisse (Switzerland) Ltd

#### SEPA PAYMENTS IN EUROSIC VIA DEFAULT ROUTING

The share of SEPA payments in cross-border payment transactions amounts to over 90%. Payment messages with structured address data can be seamlessly processed in the euroSIC system. However, as per the SEPA Rulebook, such payments are still not permitted.

When the ISO 20022 standard was being implemented in Switzerland four years ago, the euroSIC participants were asked by their customers about the use of structured addresses at the customer-bank interface. Thanks to the "Default Routing" service, from November 2017 the euroSIC participants can submit SEPA payments as pacs.008 with the payment type "General customer payment". At the same time, there is no rejection when the initiating party's address is provided in a structured form.

The payment passes in euroSIC through a SEPA filter where structured address data are converted into unstructured address lines. This way, the payment adheres to the format requirements under the SEPA Rulebook. If other SEPA criteria are met, the payment is executed as a SEPA payment. Otherwise, it is processed on the same day as SWIFT MT103 via TARGET2/STEP1 with a structured address in field 50F or 59F.

**Susanne Eis**  
SECB

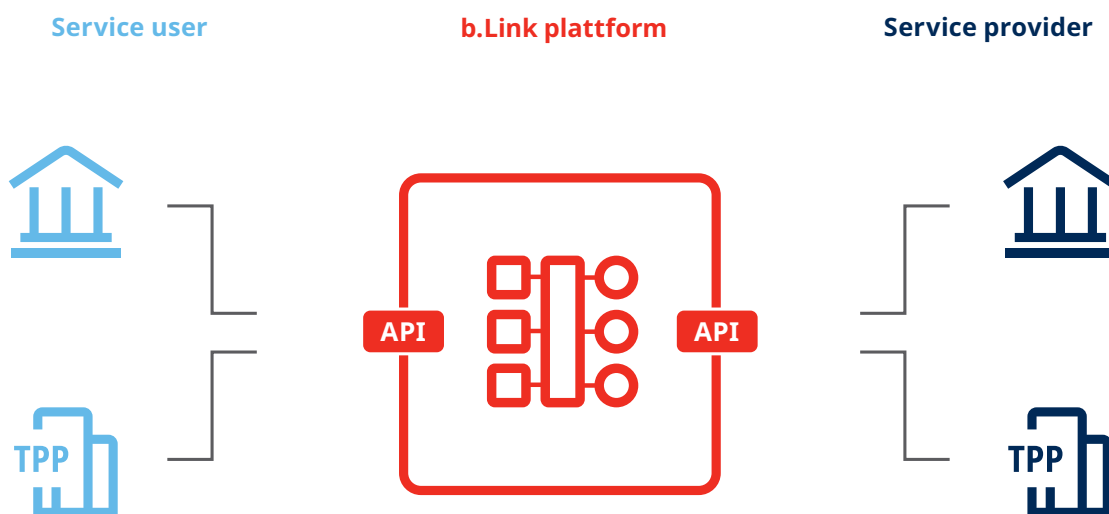




# **b.Link – Open Banking. Made in Switzerland**

SIX launches b.Link – an open banking solution developed for the Swiss financial center. The exchange of customer data between financial institutions and third-party providers (TPP) will create a win-win situation for all participants and offer numerous opportunities for new services and new customer relationships.

## The b.Link platform with standardized APIs



Open banking is also attracting increasingly wide interest and gaining greater acceptance in Switzerland. While financial institutions in the EU have been required to open their interfaces to TPPs since entry into force of the Payment Services Directive (PSD2) in 2018 and expiry of the implementation phase in September 2019, there is no obligation to do so here in Switzerland. Even so, the Swiss financial center is on the move, too. Banks are facing ever stronger competition from Fintechs, digital banks and large technology companies that are shaking up the market with new products. The need for new solutions for accessing account information or simplifying the triggering of credit transfers, for example, is growing in the corporate and private customer segment as well. Richard Hess from the Swiss Bankers Association (SBA) summed this up in a recent article: "Fast, simple and easy: That's how we'd like to do our everyday financial transactions".

### Standardized Interfaces

Common interfaces (application programming interfaces – APIs) are required in order for financial institutions and TPPs to exchange data. Various initiatives in Switzerland are addressing the standardization of APIs. SIX is going a step further by using the b.Link platform to provide banks and software or service providers not only with standardized APIs that enable connected participants to connect with one another directly, but also uniform consent procedures, admission tests and contracts.

#### b.Link platform

- Only one interface as secure connection between a participant and SIX
- Lower overall costs in the medium and long term
- Provision of test environments, sandboxes and all documentation
- Existing support systems (invoicing, monitoring, etc.)

## Special Features of b.Link

The four key elements of the platform are standardized interfaces and admission tests, uniform contracts and digital consent management.

### – Interfaces

Only one interface is needed to provide a secure connection between a participant and SIX – and therefore to all the other participants on the b.Link platform. This means not only a high degree of reliability and security, but also cost efficiency.

### – Consent-Management

Customer data is exchanged between a service provider (financial institution) and a service user (e.g. provider of an accounting tool) exclusively with the consent of the respective customer. Before giving their consent, the customer must know by whom and for what purpose their data will be processed.

The customer can revoke their consent at any time, they always have full control over their data and full transparency about who receives their data and what it is used for.

### – Admission test

SIX conducts a standardized admission test with all interested participants. In this way, SIX ensures that all participants bring along the necessary level of security when handling sensitive financial data. At the same time, this eliminates the need for burdensome bilateral negotiations for financial institutions and TPPs: A party that meets the criteria can, with the consent of the relevant customers, exchange data with all other participants via the b.Link platform.

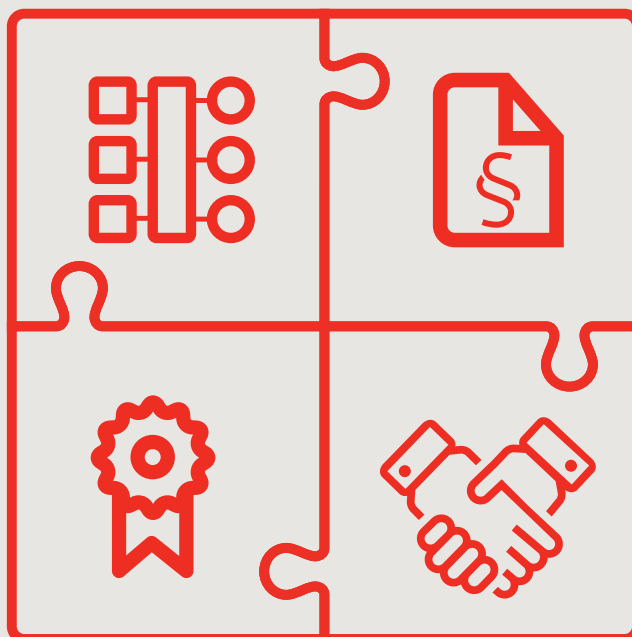
### – Contracts

SIX regulates all matters relevant to participation in b.Link with a well-founded standardized agreement. This spares the participants lengthy contractual negotiations with their respective counterparties.

## The four elements of the b.Link platform

- **Standardized interfaces**  
for highest reliability

- **Standardized admission tests**  
for highest security



- **Uniform contracts**  
for more efficiency

- **Digital consent management**  
for full transparency





### Services of b.Link

For the moment, SIX provides two applications via b.Link in the areas of accounting and multi banking for corporate customers:

- The “**Account Information Service (AIS)** for accounting solutions and financial institutions” enables TPPs to obtain detailed account and transaction information from banks on behalf of their customers and, for example, to use it for comparisons with accounting. This always takes place with the consent of their customers.
- Thanks to the “**Payment Submission Service (PSS)** for accounting solutions and financial institutions”, TPPs can order their customers’ payments from their banks automatically. After this, all that is required is for the customer to approve the payment in its e-banking system.

### Go-live in May 2020

Following a pilot phase lasting several months, SIX launched the b.Link solution in mid-May 2020 together with Credit Suisse, Neue Aargauer Bank and UBS, as well as Klara. Zürcher Kantonalbank will also start participating in the b.Link platform as of September.

### Expansion of the b.Link Ecosystem

b.Link is designed as an open platform to enable further banks and TPPs to join at any time. The target groups for the services are also to be steadily expanded. Additional applications are already in the pipeline. Therefore, it could soon be possible, for example, for providers of accounting solutions to enable their corporate customers to share information on creditors and debtors with banks. The banks could then provide comprehensive advice to their customers based on these data or use

the information for credit decisions, for example. Together with interested participants, SIX will evaluate and implement the ideas in line with market requirements. SIX also coordinates and facilitates the process by which financial institutions and TPPs can put forward their proposals for new applications. SIX is at the beginning of a development with b.Link. The potential of open banking will primarily be realized in the coming months and years.

**Karin Pache**

SIX



**Further details**

[www.six-group.com/b.link](http://www.six-group.com/b.link)

#### GLOSSARY

*Account Information Service (AIS)* refers to the provision of account data (balances and transactions) to TPPs, combined with the authorization to process them.

*Payment Submission Service (PSS)* refers to the submission of payment orders by a TPP to a financial institution. Payment orders must then be approved by the customer in e-banking.

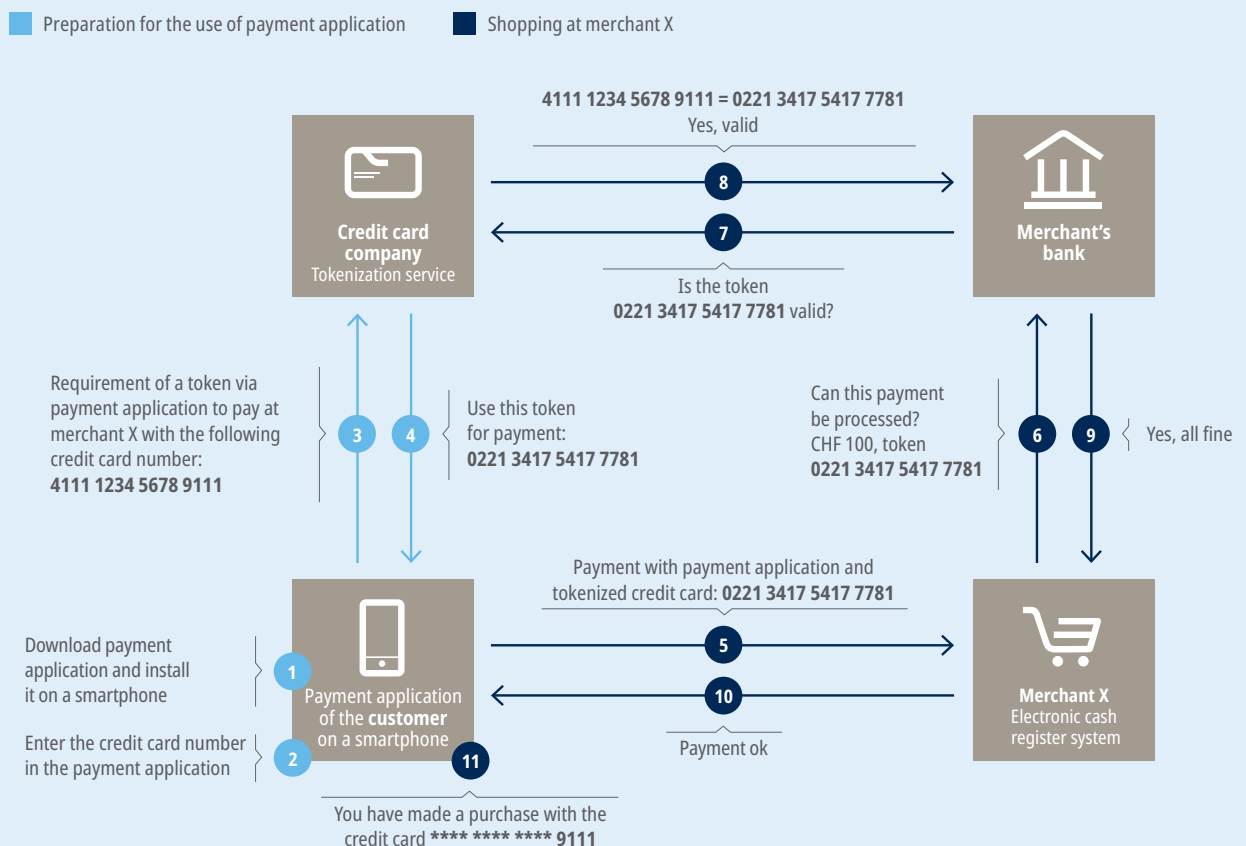
# Tokenization – Token to Protect Sensitive Data

*The classic encryption of sensitive data has been ensuring protection in processing payments for a long time. As an additional security measure, tokenization has gained in significance. In the area of card payments, there are also various mechanisms and technologies.*

The term “tokenization” is used for processes where sensitive data, such as a credit card number, is replaced by clear identification features useful only to a limited extent. Instead of a confidential data element, there is a less sensitive equivalent – the token. The token consists in a clear reference which is always created only by the responsible tokenization service of the credit card com-

pany and can be tracked back to the sensitive data only by the same tokenization service under strict security procedures. The method of token generation ensures that there are no practical means to track the token back to the original data (e.g. back to the original credit card number) with cyber attacks or cryptanalysis.

**Figure 1: Example use of a token with a smartphone**



### Use of Tokenization

In the past, sensitive data, e.g. of a credit card holder, were stored directly in data banks and transferred via networks relatively unprotected. Now they are replaced by less sensitive tokens. This makes this information stored in data banks and computer memories or being transferred useful for criminals only to a limited extent, which reduces the risk of fraud.

Tokenization can be introduced in a convenient way, as this process does not change the structures (type and length) of data replaced by the token. This way, electronic messages, APIs and data banks of existing legacy systems can generally continue to be used unchanged. In addition, tokenization only requires limited computer resources.

### Tokenization in Card Processing

In case of card payments, the primary account number (PAN) is replaced by a token (Figure 1). The token is then the equivalent of a card, but can be blocked separately or limited to a merchant as a beneficiary or a wallet.

Tokenization is already of great importance for the payment sector and is often used in payments made with smartphones (via Wallets), smartwatches and fitness wristbands.

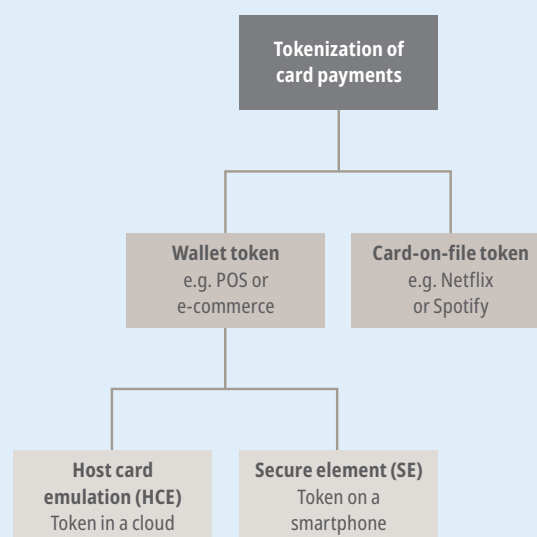
Different mechanisms are used depending on the use case (Figure 2). However, they are always based on the tokenization service of the credit card company. Difference must be made between “Wallet” tokens that can be used at points of sale (POS) and in e-commerce and “card-on-file” tokens that are stored directly by providers such as Netflix or Spotify. Depending on the use case, different technologies are utilized:

In case of Wallets, we recognize “host card emulation” and “secure element”:

- **Host card emulation (HCE):** In case of HCE, the token is saved in a cloud. Only single use keys (e.g. Mastercard) or limit use keys (e.g. Visa) are used for payments on a smartphone. As soon as the keys are used, the user must reconnect to the Internet to load new keys. This applies to e.g. Google Pay and UBS Mobile Pay.
- **Secure element (SE):** In case of SE, the token is saved on a smartphone and used for payment. The user does not have to connect to the Internet to pay. Apple Pay or Samsung Pay utilize this technology.

In case of “card-on-file” tokens, the merchant asks the tokenization service of the credit card company for a token. The merchant saves it and uses it for payment.

Figure 2: Card payment tokenization mechanisms



### Future of Tokenization

Nowadays, the card stored in a Wallet or at an e-commerce shop is based on a fixed token in practically all applications. It would be even more secure but also more complex if a token only had a limited lifetime, e.g. if it was only valid for a single transaction. Instead of passing on sensitive credit card information of a customer in case of a purchase, it is replaced by an immediately and randomly generated token. Such token is “unique” for each payment transaction, i.e. it cannot be used in any other case for any other purchase.

Tokenization is a security measure that has already taken root in many scopes of use. With security being an essential factor also in payment transactions, tokenization will continue to be developed at a rapid pace and the use of tokens will significantly increase.

**Peter Ruoss**

UBS Switzerland AG



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*Due to the crisis, the financial industry as well as the whole national economy have been activated unintentionally and challenged to adjust processes and business models and to develop new systems and procedures.*

Alain Schmid  
Head Payments Services, Credit Suisse (Switzerland) Ltd

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