

Swiss Banks: Instant Payment About to Take Off — eBill Much Awaited — Cost Transparency in POS Business — Unstoppable Advance of CBDCs — DeFi Instead of CeFi?

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Banks Just Before the New Age of Credit Transfers

TEXT
GABRIEL JURI, EDITOR-IN-CHIEF PAY,
SIX GROUP

WhatsApp message gets to the recipient right away. Payment processing via e-banking, on the other hand, can take several hours, or even several days to be credited to the merchant. Only cash allows for a real-time, definitive, and irrevocable transfer.

As of 20 August, 2024, instant payments will also provide this immediate availability and finality.

Here's a summary of the experiences of six leading Swiss financial insti-

tutions that are in the final stages of preparing for the introduction of instant payments. These banks handle more than 90% of all payments in Switzerland, and they're ready to change the way we think about money transactions for good.

Customer-Oriented Strategies

Banks have developed various strategies to meet customer needs in connection with instant payments and ensure a smooth customer experience.

Crucial aspects are compliance with processing times and the minimization of payment rejections. This is particularly important as the transaction speed is increased with instant payments.

Competitive pricing and the seamless integration of the instant payment function into existing online banking platforms are key to increasing user-friendliness and offering real added value for customers.

The banks attach great importance to involving market players. This ensures that innovations meet customer needs, from initial concept to launch. Through the national and international exchange of experience, they can learn from best practices and integrate them into their own processes.

The intuitive integration of instant payments into online banking makes it easy for customers to locate and utilize this function. Clear and effective communication about incoming and outgoing instant payments builds trust and transparency.

The immediate executability and confirmation of payments offer flexibility and security. Banks recognize the numerous applications that can support instant payments and the associated benefits for their customers.

Most banks are introducing a basic offering for sending such payments in mobile banking ahead of the launch of instant payments in Swiss payment traffic in August 2024. They are engaging in discussions with their customers in advance to gain insight into their needs and identify potential future use cases. Other important aspects include seamless integration of the instant payment service into existing

Banks expect to process 5 to 10% of their payment transactions instantaneously.

customer journeys and continuous improvement of the user experience and customer feedback.

Business Models

Banks view instant payments as the new normal in payment traffic and are developing business models that focus on use cases with clear added value for customers. This added value can manifest itself in the form of increased efficiency as well as faster and more secure transaction processing.

However, the profitability of instant payments poses a challenge, particularly in terms of passing on investment and operating costs. Customer acceptance of additional fees is low, creating a tension between profitability and customers' willingness to pay. Banks place great importance on simple, customer-oriented processes and integrate instant payments into existing payment procedures. They do so by leveraging technology to ensure the security and efficiency of payment processes while creating a positive customer experience. This includes some banks asking their customers whether they want their payments to be executed immediately. Overall, banks recognize the challenges associated with introducing this new payment method and the need to increase acceptance and volume to achieve sustainable profitability. Banks currently anticipate processing approximately 5 to 10% of their payment transactions instantaneously.

Competitive Position and Customer Loyalty

At the time of introduction, the new function will not have a significant impact on the competitive position of banks. This is because they generally start with a minimal product offering in view of the low transaction volume initially expected.

However, in the medium term, i.e. after the phased introduction by November 2026, instant payments are likely to become a





standard offering. This is especially the case with the expansion of functionalities, such as file-based payments for business customers. Banks expect concrete effects on customer satisfaction and loyalty, which could influence their competitive position. They anticipate that instant payments will become the new market standard in the banking offering, necessitating their inclusion as a "must" for every bank in the long term. This is primarily due to the fact that not only the largest, but all payment transaction banks in Switzerland must be able to accept instant payments over a period of two years. Such a high level of market penetration should represent tangible added value for customers. Consequently, banks are investing in the provision of their customer solutions at an early

Integration into Existing Systems

Banks already use instant messagingcapable core applications from their software suppliers and connect these in a standardized way with other internal applications that are necessary for processing. This includes online banking, where payment capture is a critical point for a smooth and customer-friendly experience due to the "always-on amount authorization." This requires a solution that is as streamlined and intuitive as possible. The integration of instant payment functionalities into existing systems and processes therefore also requires new processes, with a particular focus on risks, interfaces, and downstream process steps.

The implementation of the instant infrastructure causes investments that go far beyond the costs of a normal release: for additional servers, connections, and applications that cannot be integrated into the existing infrastructure. The requirement to provide the service around the clock also has a direct impact on the organization of operations and leads to additional costs.

Support Measures

The banks have planned various training and support activities for the introduction of instant payments. Staff will be prepared through specialist training in areas such as liquidity management, back office,

and compliance. Customers will be familiarized with the new system through communication measures.

Some banks are already developing specific content such as FAQs for support and information campaigns for their customers. The focus of the training is on the new channel, the time requirements, and possible reasons for refusing payments.

User guidance should be intuitive and users should be trained with regard to risks and special features, such as fraud risks and liquidity management. For customers, the new instant payment service should be intuitive and self-explanatory, supported by product data sheets and user instructions.

Preparing employees and educating customers is crucial to ensure effective use of the new service.

Technical Challenges

The banks faced numerous technical challenges during the changeover. The implementation of the instant payment process required a redesign of the processing steps, which now have to run in parallel instead of sequentially.

The integration of new technologies and applications for sanction checks and microservices for instant payments presented further hurdles. Communication problems, unclear agreements and a lack of resources led to bottlenecks in implementation in some places.

Adaptations to numerous applications and interfaces were necessary, also involving external software providers. Uncertainty about the expected latency times at the start of the project made planning difficult.

In order to integrate instant payments, the banks had to fundamentally revise their payment transaction processes. This affected both the technical architecture and the customer requirements. Integrating the new instant payment platform with the existing systems was a particular challenge, as every second counts in end-to-end processing and even slight delays can lead to timeouts.

Other challenges included the lack of support in existing messaging products, a market for such technologies that is still developing, and a communication protocol that is not yet optimized for realtime use. The temporal coupling of sender, clearing, and recipient proved to be complex, as customers, not banks, control the processing load and peaks in instant payments.

Safety Precautions and Regulatory Requirements

Banks employ various strategies to mitigate security risks and prevent fraud in instant payments. In the event of anomalies, payments are rejected immediately and re-evaluated at a later stage. Account checks, real-time anomaly detection, artificial intelligence, and biometric authentication processes enhance security. Customer education and collaboration with the financial center are also crucial aspects. The banks emphasize that their security measures align with the current industry standard and are continuously being enhanced.

Furthermore, the banks have adapted their compliance mechanisms in order to meet the regulatory requirements, even in the context of rapid settlement. This includes, in particular, adjustments in the area of sanction checks.

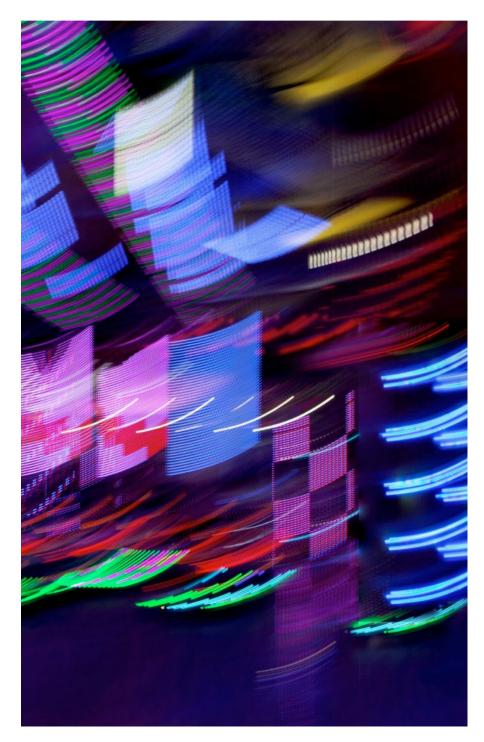
Recommendations for Latecomers

Banks that are currently implementing instant payments emphasize the importance of thorough preparation and planning. They recommend that institutions that have yet to implement should not underestimate the time required for preparation, particularly in terms of starting early with internal clarifications on product definition and playing through possible use cases. This also means, for example, analyzing the effects on existing processes with the software suppliers at an early stage, particularly with regard to architecture and technology.

It's advisable to concentrate on the key delivery items and consider the interaction between the organization, processes, and systems. It's also important to allow sufficient time for the pilot phase, the testing of various use cases, and any optimization measures.

Key Message

The introduction of instant payments is the start of a development with many benefits for customers. It is a joint process that focuses on relevant topics that offer added value for customers. The improvement in the speed of bank payments represents a significant step forward that will allow us to catch up with European standards. This is an important step for the Swiss financial center, which can thus catch up with services where constant availability is already standard.





Instant Payment Challenges in the EU: Voluntary Adoption and Costs

FUTURE TALK WITH JOSÉ LUIS LANGA, DEPUTY MANAGING DIRECTOR OF IBERPAY, OPERATOR OF THE SPANISH RETAIL PAYMENT SYSTEM, AND CHAIRMAN OF THE BOARD OF THE EUROPEAN AUTOMATED CLEARING HOUSE ASSOCIATION (EACHA)

More than six years after its launch, the share of instant payments in euros (SCT Inst) remains below 20% of all other types of credit transfers. What's the reason for this?

You can view the situation as either a glass half full or half empty. While the initial launch was successful, several important European countries have yet to fully embrace SCT Inst. The primary reason lies in its voluntary nature. Without comprehensive coverage, there is no guarantee that SCT Inst will be accessible to all individuals and businesses within the SEPA area. Consequently, banks may not be highly motivated to adopt it on a widespread scale. Additionally, the higher cost associated with the instant processing of individual transactions round the clock compared to bulk payments has hindered broader adoption. Many banks offer instant payments as a premium service with fees, unlike traditional credit transfers. Fortunately, new EU regulations address both challenges, making it likely that SCT Inst will become the new standard in the medium term.

How effective is SCT Inst from the demand side?

Currently, adoption primarily focuses on small-value payments between individuals. Companies and public administrations rarely utilize this solution to date. There is significant room for improvement. To optimize payment flows across the entire value chain of financial transactions and business processes, SCT Inst needs further development. For instance, raising the current limit of 100,000 euros would facilitate its use for international or B2B transactions. There is also room to make SCT Inst better prepared for commerce transactions.

What is the impact of the interoperability between the ECB's TIPS and EBA Clearing's RT1 euro systems, which has been in place since December 2021, on the use of SCT Inst?

It has had a positive impact. Let's consider Spain as an example. Since the first day of operation of the two systems, Iberpay has connected the Spanish financial community with other European participants through a single window with all the combined functionalities of both systems. This means maximum accessibility in the SEPA area with minimum cost and complexities for the participants. Current figures show that nearly 5% of all instant payments processed by Iberpay are made via RT1 or TIPS. And the trend is increasing.

What's the role of CBDCs and stablecoins in the context of instant payments?

Both types of tokenized money are suitable to facilitate the process of delivery against payment of securities and to avoid settlement risks.

However, they are unlikely to replace established instant payment solutions for processing, clearing and settlement of retail payments. Unlike instant payment processors, DLT networks cannot finally and irrevocably settle thousands of transactions within a second.

INTERVIEW
GABRIEL JURI

Source Trütsch, Tobias, Huber, Johannes, Bralovic, Nemanja (2024). Die Kosten der Point-of-Sale Zahlungen in der Schweiz (The cost of point-of-sale payments in Switzerland). Center for Financial Services Innovation, University of St. Gallen

Private Versus

Resource Costs

Private costs for cash arise from various sources, including cash management, cash production, time spent at the POS, and equipment expenditure. For cards, these costs include data center and transaction fees.

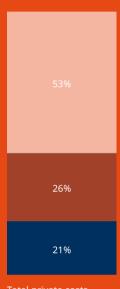
The resource costs reflect the total expenditure in the form of internal processes for the payment system, e.g. in the form of time for accepting/processing POS payments.

- Credit cards
- Debit cards
- Cash

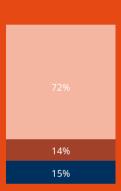
Average Resource Costs per Transaction

Cash payments cause the highest economic costs in terms of resource costs. For the two most expensive means of payment, the financial institutions and infrastructure providers are the biggest cost drivers. The Swiss National Bank, Swissmint, and consumers hardly play a role.

For the first time, analysis shows the total economic costs of point-of-sale payments. Billions that make you sit up and take notice.







Total resource costs CHF 7.3 billion



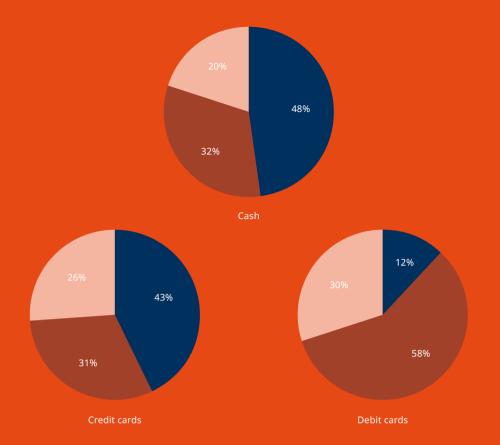
Cash
3.7 francs in tota



Credit cards
3.2 francs in total



Debit cards 0.7 francs in total



Private Costs by Actors

Cash is also the most expensive means of payment in terms of private costs. Financial institutions, infrastructure providers, and retailers bear the largest share here, followed by consumers.

- Financial institutions/ infrastructure providers
- Retail
- Consumers

24 seconds Cards inserted 18 seconds Cash 17 seconds Mobile payments via QR code 13 seconds Mobile payments via NFC

13 seconds

Contactless card (NFC)

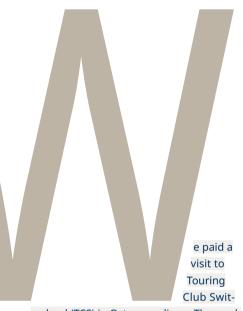
Measurement of the time required for the payment process at the POS

The duration of the payment process (rounded in seconds) causes labor and opportunity costs for retailers and consumers. It is the largest cost component for POS payments.

eBill Awaited

VISITING BERNHARD BIERI,
DIRECTOR OF TOURING CLUB SWITZERLAND

TEXT
SIMON BRUNNER



zerland (TCS) in Ostermundigen. The modern building is right next to the train tracks. We got out, but the underpass only leads out of the station on one side – the wrong side, of course. It was a funny omen for our visit to Switzerland's largest mobility club, with 1.6 million members and 1,900 employees.

After a quick detour, we arrive at the largest site in German-speaking Switzerland (the head office is in Vernier near Geneva). The first thing we notice is the eMobility lounge on the first floor. It's surprising that cars don't play a big role here, with e-scooters, cargo bikes, and e-scooters taking center stage. Why is that? We go up one floor to find out. Bernhard Bieri, director of TCS, is waiting for us there. He looks pretty modern: white sneakers, Apple Watch, goatee. Bieri leads us up a few stairs to the cafeteria, where we are greeted by a magnificent

view of the picture-book peaks of the Bernese Oberland.

Mr. Bieri, every child knows TCS because of the yellow breakdown vehicles.
But here on the premises, car products aren't center stage. Why is that?
Let me ask you a question. What do you think TCS was founded for?

To promote limitless driving on Swiss highways?

Gotcha! (laughs) The founders wanted to promote cycling tourism and make it safer. They had a lot of alarming experiences when travelling around on their bikes, including flying pitchforks and wires stretched across the road. This was in 1896.

So, the TCS stands for...

... the mobility of all road users. That's always been our mission, although we're mostly known for our work with car traffic. But we've always been a mobility club first and foremost.





You run campsites and a drone app, and there are ambulances, insurance, and credit cards. How many different products do you actually offer?

(laughs) Now you've got me – I don't know. But what I do know is that all our products are developed according to the needs of our members and are generally very well received.

Bieri also knows that two current trends are causing breakdown services and cars in general to wane in relevance: Firstly, young people in cities no longer necessarily want to own their own vehicle; and secondly, cars today are less prone to damage than they were 10 or 20 years ago. If the TCS wants to continuously increase its membership figures, it needs new approaches. The club has found them: It is number one for e-cargobike sharing worldwide, while in Switzerland it is the top provider of bike marketplaces, drone schools, travel insurance, and campsites.

Mr. Bieri, how do you envisage the future of mobility?

"I really believe in combined mobility," says the long-standing TCS Director. "You drive the first part of the journey by car, then switch to public transport for longer distances to avoid traffic jams. For the last few kilometers, you might grab an e-scooter or order an Uber."

We argue that this park-and-ride concept hasn't really caught on in Switzerland. Bieri says it's because the train station transfer options aren't great or there aren't enough parking spaces. "Politicians often ban cars as a matter of principle," he says. "Then they prevent mixed solutions that make more sense." He himself gets to work by car, "so I save 45 minutes. The car offers a lot of people a lot of benefits, and it'll stay that way. They'll only switch if the alternatives are just as attractive." When it comes to new mobility solutions, Bieri thinks there's a bright future for small, ultra-light electric vehicles for urban transportation.

Bernhard Bieri spent 20 years at PostFinance, where he was in charge of introducing e-banking. He was part of the team that developed eBill, so you'd think he'd have introduced invoicing billing at TCS, which sends out around four million invoices a year.

Bieri smiles a bit awkwardly: "Of course we wanted to, but we had to adapt our IT systems first. And that took longer than we thought." Since last fall, TCS members have finally been able to pay electronically – and 210,000 have already done so. "That shows people have really been waiting for eBill," says Bieri.

Where does he see the pros and cons today? The organization's low costs (no printing, no mailing) and high level of environmental compatibility are very positive. Initial analysis has also shown that the number of reminders is falling because "you have the invoice in your e-banking right away," as Bieri says, "so it doesn't get forgotten."

He has to think about the cons. Then he remembers: "With printed invoices, we could also send an accompanying letter in addition to the payment slip. With eBill, you can include additional information, but it's hardly ever read." The second downer is a bit of a disappointment for TCS, but it's a win for customers: the system automatically selects the last possible payment date. "This is good for the paying party," says Bieri, "but it has an impact on our cash flow. We're used to some people paying immediately." Overall, though, Bieri sees the introduction of eBill as a positive change. "The advantages clearly outweigh the disadvantages," he says. He's confident that many more people will switch over by the end of the year when the membership fees are due. It's a bit of an odd fit that TCS adopted eBill so late, given the club's digital self-image. "We're at the forefront of taking out insurance policies online."

Bieri, a passionate cyclist, has to move on. As he says goodbye, he adds: "And the next time you see a yellow TCS tow truck, remember: We're also the biggest bike club in Switzerland!" A new study by the University of St. Gallen has revealed that the economic costs of payments at the point of sale amount to just under 1% of Swiss GDP. The research also found that cash is the most expensive means of payment, followed by credit and debit cards (see also p. 8).



More information

Further Global CBDC Initiative

The Bank of central banks (BIS) is launching a significant project in collaboration with seven central banks, including the Swiss National Bank, and the private sector. The objective of this project is to investigate the potential benefits of integrating tokenized customer deposits at commercial banks with tokenized central bank money in order to enhance the functionality of the monetary system, with a particular focus on cross-border payments. A year ago, Swift demonstrated the feasibility of integrating crossborder transactions with central bank digital currencies (CBDCs) into existing financial infrastructures in collaboration with central and commercial banks. Both BIS's Agorá project and Swift's CBDC connector are independent initiatives pursuing similar goals. It is unclear whether there is coordination or at least an exchange of information between the two projects to create synergies.

More information



SNB



Swift

How Secure Are POS Payments via NFC?

There is a wealth of research and discussion indicating that contactless POS payments (NFC) are no less secure than transactions with PIN entry. In its analysis, the Banque de France states that contactless payments are no more risky. The central bank draws this conclusion from the fraud rate for French cards, which is 0.011% for both payment methods.



More information



EXPERTS ONLY

Harmonization of payment transactions: the role of market infrastructures

Required knowledge

- Familiarity with (inter)national ISO 20022 standardization
- Knowledge of the Swiss payment traffic roadmap

The terms "harmonization" and "interoperability" have become ubiquitous in the context of payment traffic in recent years. The global message standard ISO 20022 has transitioned from mere declaration of intent to practical implementation. This raises the guestion of whether the journey with ISO 20022 is already in the rearview mirror or still ahead of us. When we look at the overall situation, it is clear that the journey is certainly not over yet.

Milestones in the Introduction of ISO 20022 in Switzerland

A review of the most important milestones in the introduction of ISO 20022 from the perspective of the systemically relevant Swiss financial market infrastructure, Swiss Interbank Clearing (SIC), is appropriate. At the end of 2009, SIX was commissioned to develop a concept for a future-oriented architecture of the SIC system. One of the fundamental requirements was a consistent focus on the ISO 20022 message standard, which laid the foundation for the initiative to migrate payment traffic in Switzerland. The implementation project for the fourth SIC generation commenced in 2011 and led to the gradual introduction of the SIC4 platform in 2015/2016, thus paving the way for the nationwide switch to ISO 20022 in Switzerland. In 2018, Switzerland successfully completed the migration to ISO 20022, thereby fully harmonizing

payment transactions and laying the foundation for the further digitalization of the financial sector.

Factors Influencing the Implementation of ISO 20022 The introduction of ISO 20022 in Switzer-

land was influenced by a number of factors. One key driver was SEPA. Although Switzerland is not a member of the EU, it has been part of the geographical SEPA area since 2006. This integration is due to the strong economic ties between Switzerland and the EU. The SEPA initiative underscored the necessity of a uniform payment traffic infrastructure, thereby laying the foundation for the introduction of ISO 20022 in Switzerland. In the interim, ISO 20022 has become even more crucial. Two other external drivers that are of paramount importance to the Swiss financial center should be highlighted in particular:

- Swift CPBR+ (Cross-Border Payments and Reporting Plus): In 2017, Swift announced its intention to convert its message formats to ISO 20022 in order to standardize international payment transactions. CPBR+, meanwhile, provides for a gradual transition to ISO 20022 in payment transactions between 2023 and 2025/2026.
- Eurosystem T2: The system carried out a big bank migration to ISO 20022 for its T2 payment transaction platform in March 2023.

The conversion of various financial markets worldwide has gained significant momentum through corresponding programs of important market infrastructures, such as the High Value Clearing System (HVCS) in Australia in March 2023 and the Clearing House Automated Payment System (CHAPS) in the UK in June 2023. In the US, the Federal Reserve Bank has announced the introduction of ISO 20022 for the Fedwire Funds Service in March 2025. The FedNow instant payment service commenced operations in July 2023, utilizing ISO 20022. In April 2024, CHIPS, the largest private USD clearing and settlement system, operated by The Clearing House, transitioned to this standard. An early adopter outside Switzerland was the Canadian Payments Association, which launched its Lynx

system in 2021 under the supervision of the Canadian central bank and has supported the end-to-end use of ISO 20022 since November 2022.

What Role Will Market **Infrastructures Play Next?**

To promote interoperability, market infrastructures must actively cooperate and exchange information. This dialogue enables the identification of local differences in the individual markets, while also facilitating the harmonization of the underlying framework as part of an overarching global market practice.

HVPS+: The Answer to the Challenges

High Value Payments Systems Plus (HVPS+) is an industry association of leading market infrastructures dedicated to harmonization and interoperability in global payments. However, what exactly does HVPS+ offer in response to the resulting challenges?

The HVPS+ defines principles and objectives to enable the further development and interoperability of cross-border and domestic payments according to ISO 20022. These principles are designed to ensure that the implementations of ISO 20022 messages in the various markets remain up-to-date and discrepancies are minimized. Another important objective is to promote the open exchange of information between market infrastructures.

SIX has been an active HVPS+ member since 2016. In the course of 2023, the HVPS+ underwent a reorganization and alignment with the current needs of market infrastructures. At the same time, it initiated the ISO 20022 Payments Interoperability Charter, which delineates the fundamental principles and is to be regarded as a declaration of intent by the parties involved. In April 2024, SIX and the SNB officially endorsed the charter on behalf of the Swiss financial market infrastructure.

The Impact of HVPS+ on the **Swiss Payment Traffic Roadmap**

In accordance with the principle of achieving goals step by step, SIX has been maintaining the Roadmap Swiss Payments for years. An important component of this roadmap is "exogenous drivers,"

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EXPE

which it actively monitors on behalf of the Swiss financial center.

EXPERTS ONLY

It should be noted that HVPS+ does not seek to supplant the independent market practice of the SIC infrastructure in accordance with ISO 20022 with the global market practice provided. Rather, HVPS+ is intended to complement the exogenous drivers as a further global initiative. It can be reasonably assumed that the jointly defined guidelines of the leading international market infrastructures will gradually find their way into Swiss market practice.

Of greater significance, HVPS+ is a global industry association in which all relevant stakeholders are represented. The degree of maturity and the needs of individual markets in dealing with ISO 20022 may still be heterogeneous in detail worldwide, but the overarching goal is the same. HVPS+ offers a suitable framework for an appropriate exchange of experience. Switzerland can contribute a great deal of experience here, but it can also benefit from the lessons learned by other markets in terms of continuous improvement.

ROMAN LOCHER SENIOR STANDARDS MANAGER, SIX

FURTHER INFORMATION:



Swift, HVPS+



SIX, ROADMAP

Cryptocurrencies Meet the ISO 20022 Standard

The introduction of cryptocurrencies was originally intended as decentralized, less regulated alternative to the traditional financial system. However, recent developments show that cryptocurrencies are beginning to adapt the globally recognized and established ISO 20022 standard for the exchange of financial messages. This move can be seen as an attempt to improve interoperability with traditional financial systems while increasing acceptance and trust in cryptocurrencies.

Advantages of Standardization and Interoperability

ISO 20022 creates a globally recognized framework for the exchange of messages for cross-border payments, including cryptocurrencies. This standardization facilitates the integration of cryptocurrencies into existing financial infrastructures.

Improved Compliance

Compliance with ISO 20022 can help cryptocurrencies meet regulatory requirements more efficiently, boosting their credibility and trust with regulators and traditional financial players.

Integration with Central Banks and Financial Institutions

ISO 20022-compliant cryptocurrencies have a greater likelihood of being integrated into centralized payment systems.

Optimizing Cross-Border Payments

The adaptation of cryptocurrencies to the ISO 20022 standard facilitates faster and more cost-efficient payment processing, rendering them particularly attractive for cross-border trade and transfers.

Greater Trust and Transparency

Compliance with ISO 20022 contributes to greater trust and transparency in the cryptocurrency industry. A structured format for payment messages reduces the risk of errors and promotes the security of cryptocurrency transactions.

Examples

Cryptocurrencies that rely on the ISO 20022 standard include Algorand (ALGO), Cardano (ADA), Hedera (HBAR), IOTA (MIOTA), Quant (QNT), Ripple (XRP), Stellar (XLM), and the XDC network (XDC). These currencies use the standard to improve their compatibility with traditional financial systems and enable seamless integration, resulting in faster transactions and greater acceptance.

A Step Towards the Mainstream?

The integration of ISO 20022 into the cryptocurrency ecosystem represents a significant milestone in the evolution of digital currencies. While some enthusiasts may perceive this as a departure from the original philosophy of crypto, it could potentially serve as a pivotal step in promoting the adoption and diverse functionality of cryptocurrencies. The manner in which this dynamic unfolds and its impact on the global financial system remain to be seen.

PETER RUOSS PRODUCT OWNER PAYMENT SOFTWARE PARTNERS, UBS SWITZERLAND AG

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camt Is Becoming Increasingly Important

Required knowledge

- In-depth knowledge of ISO 20022 standards
- Familiarity with camt messages

The integration of camt (Cash Management) messages into the Swiss Payment Standards (SPS) and the SEPA standard has been a long-standing phenomenon. The recent addition of Swift CBPR+ and Instant Payments to the list of important use cases further solidifies their significance.

What Are camt Messages?

For efficient account reconciliation and effective cash management, up-to-date account balances and transaction overviews are essential for corporate customers. Camt messages are part of the ISO 20022 standard, which is a global and universal format for the electronic exchange of messages in the financial sector. They are used specifically in communication between banks and their corporate customers and are used to transmit financial information, particularly in cash management. The advantage of these messages lies in their standardization, which enables efficient and automated processing and thus increases the accuracy and speed of financial communication between banks and their corporate customers. The camt standard comprises a variety of message types, each addressing a specific aspect of this interaction.

camt.052

NLY

This message, designated as the bank-to-customer account report, provides intraday postings and updates on account movements and account balances. It enables banks to give their corporate customers up-to-date infor-

mation about the activity on their accounts, which is of particular importance for liquidity management and short-term cash management.

camt.053

The bank-to-customer statement is an account statement that banks prepare at the end of a business day or other agreed period. It contains information about all completed transactions and other postings for that period as well as their balances, such as the closing balance of the account. Depending on the standard, two types of camt.053 messages with accounting-related information are particularly worthy of note:

- camt.053 account statement with internal batch booking resolution
- camt.053 account statement with external batch booking resolution, supplementary to camt.054 messages

camt.054

The bank-to-customer debit/credit notification serves a number of functions in the field of financial management. It serves to inform corporate customers about credits and debits on their accounts and can also provide detailed displays of collective postings.

New: Notification of Incoming Instant Payments

The advent of instant payments has expanded the scope of applications for camt.054 to encompass the final and immediate reporting of credits resulting from real-time transfers. In this context, camt.054 can play a pivotal role by furnishing the beneficiary with prompt information regarding credited, irrevocable payments (Figure 2). This is particularly advantageous in dynamic business environments where expedient payment confirmations are essential to maintain operational continuity, such as in e-commerce. However, it is also applicable to retail, service, and industrial contexts where prompt transaction confirmations are crucial.

New: Cross-border Payments with CBPR+

Cross-border payment transactions are also undergoing radical transformation. The global Swift community is converging from a multitude of legacy messages in MT format based on ISO 20022. This also affects all MT cash management messages from Swift that financial institutions exchange with each other and which must be replaced by corresponding camt messages in accordance with ISO 20022 in the MX CBPR+ standard by 2025.

Although the full implementation of instant payments and the Swift ISO migration may still take several years, it is becoming increasingly evident that ISO 20022 messages will become the standard for cash management transactions.

PETER RUOSS
PRODUCT OWNER PAYMENT SOFTWARE
PARTNERS, UBS SWITZERLAND AG

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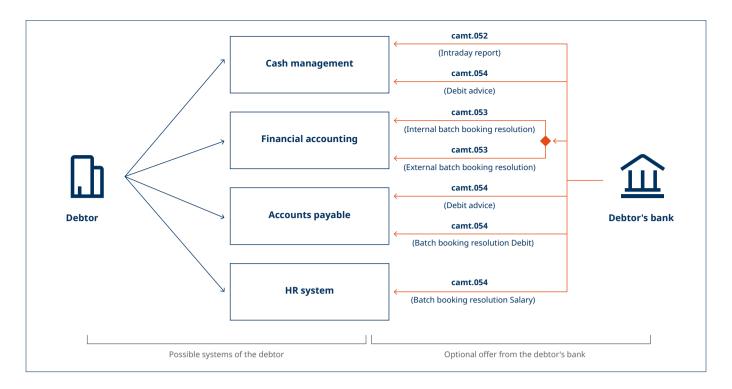


Figure 1: camt messages on the debit side

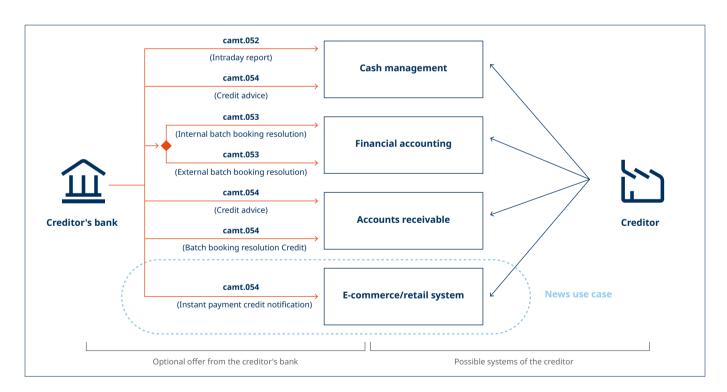


Figure 2: camt messages on the credit side



The Advance of CBDCs Seems Unstoppable

"With the increasing digitization of money and payments, central banks around the world have realized that they must offer a public option – or let the future of money pass them by." This is how the Atlantic Council, one of the most influential think tanks in the USA, comments on the current global situation surrounding digital central bank money. In March 2024, 134 countries and currency unions representing 98% of global GDP were in the process of evaluating a CBDC. Just four years ago, there were only 35.

Since Russia's invasion of Ukraine and the resulting G7 sanctions, developments around central bank money for financial institutions (wholesale CBDC) have doubled. 68 countries are currently at an advanced stage of research – development, pilot, or introduction – including 19 of the G20 countries. Of these, 11 countries are currently in the pilot phase, including Brazil, Japan, India, Australia, South Korea, South Africa, Russia, and Turkey. The European Central Bank is currently in the preparatory phase and is conducting practical tests

in which transactions are carried out in a controlled environment. Three countries have already fully implemented a CBDC – the Bahamas, Jamaica, and Nigeria.

Additionally, there are 13 cross-border CBDC projects, including mBridge, which connects China, Thailand, the United Arab Emirates, and Hong Kong. This project is set to enter a new phase this year and expand to 11 more countries.

As the world's largest CBDC pilot project, the Chinese digital yuan (e-CNY) has reached 260 million wallets in 25 cities. Since 2022, it has been used in a range of areas, including transit traffic, healthcare, and the purchase of crude oil. This year, the pilot project is focusing on optimizing the use of the e-CNY by tourists abroad and expanding cross-border applications.

Where Things Got Stuck

Despite the rapid progress, challenges remain. In the USA, development has stalled. There is a growing divide between the US and G7 banks, including the Bank of England and the Bank of Japan. The CBDC has become an issue in the current US presidential election campaign, with several candidates speaking out against its development.

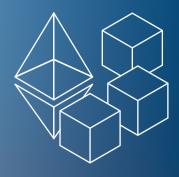
The extent to which government institutions can ensure the security of CBDCs, protect the privacy of private individuals and keep the existing financial system stable remains to be determined. Nevertheless, it seems that CBDCs are here to stay.

GABRIEL JURI

FURTHER INFORMATION:



CENTRAL BANK
DIGITAL CURRENCY TRACKER



DeFi Instead of CeFi?

Centralized financial services (CeFi, for Centralized Finance), as provided by banks, stock exchanges, insurance companies, and brokers – or, as crypto enthusiasts say, the old world - have a long tradition. For account management, payment processing, lending, mortgage financing, or securities trading, private and corporate customers have to interact with financial intermediaries in order to gain access to services. In contrast, the new world of DeFi funds, DeFi insurance, DeFi loans, or DeFi leasing operates without the need for intermediaries. Blockchain-based platforms provide these decentralized financial services without any central role. Instead, the smart contract on the blockchain plays a central role, defining the contractual conditions between the contracting parties and ensuring transparency for all. If the specified conditions are met, the smart contract automatically and irrevocably executes the corresponding actions.

Emerging Industry

Turnover in DeFi ecosystems is comparatively small and volatile. In 2023, approximately 100 billion US dollars were traded worldwide via DeFi protocols. The current market leader in this dynamic environment is the open-source blockchain platform Ethereum, which is run by a nonprofit foundation based in Switzerland. With a market capitalization of around 12 billion Swiss francs, it is followed by

US-based Avalanche. Experts believe that new market players and use cases will emerge and that DeFi has great potential. Although the "money side" of DeFi transactions is often a cryptocurrency, there are also stablecoins or tokenized assets whose value represents traditional shares, bonds, indices, commodities, or currencies. These serve as a bridge between the cryptocurrency and traditional financial worlds.

Dynamic Regulatory Environment

The risks associated with crypto markets are numerous and include volatility, security concerns, and the regulatory environment. This is still in its infancy and varies greatly from region to region. While the USA is still looking for clear guidelines, the EU has introduced some regulatory approaches. For example, the banking supervisory authority has published anti-money laundering guidelines that will apply from 30 December 2024. These also affect DeFi and are aimed at regulating hosted wallets, for example. Switzerland is taking its own path and pursuing an open approach. The Swiss Financial Market Supervisory Authority FINMA handles DeFi requests taking into account the existing rules, abstracting from specific technologies or processes, and applying the same rules as for intermediaries in the traditional financial market. This pragmatic approach has made Switzerland an attractive location for DeFi projects and promotes innovation in the financial sector.

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FURTHER INFORMATION:



PRESS RELEASE OF THE EUROPEAN BANKING AUTHORITY



FROM THE FINMA ANNUAL REPORT



Who Invented It?

The renowned 13-herb recipe contained in Ricola sweets exemplifies Swiss ingenuity, which is sold in 45 countries. The combination of a network and computer network – the World Wide Web – is also regarded as a Swiss invention. The same goes for SCION, the world's inaugural network architecture to offer routing control, error isolation, and explicit trust information for end-to-end communication. It safeguards individuals on the internet from cyberattacks.

SCION was developed at ETH Zurich, the most renowned university in continental Europe, where it has been in productive use in research and teaching since 2021. The Swiss National Bank and SIX use it for all system-critical and business-critical infrastructure services of the financial center, including communication via the Secure Swiss Finance Network (SSFN) to the Swiss payment system SIC. SCION is also used in the healthcare sector to exchange data securely and efficiently. The technology is an important component of the Federal Administration's cloud strategy, as it is integrated into contracts with leading global public cloud providers such as Amazon, Alibaba, IBM, Microsoft, and Oracle.

The recipe for secure data exchange is also attracting interest outside of Switzerland. The French cloud connectivity company InterCloud offers SCI-ON-based services, including access to the SSFN. Its customers include a US

blockchain data service provider for open banking, whose cloud environments in Europe and the US are connected to Anapaya's SCION-based network software. Telindus, a Luxembourg-based ICT and telecommunications solutions company, also plans to use SCION to gradually enhance the cybersecurity of its networks in the Benelux countries. It intends to join SSFN and is preparing a feasibility study for its first service. Furthermore, several international carriers are in the process of joining the SCION network.

Standardization and Scientific Breakthrough?

In addition to practical suitability, another milestone is on the horizon: The Internet Engineering Task Force (IETF), which is responsible for the international standardization of the internet, is currently examining the formalization of SCION at the level of interoperability with the existing internet.

However, the theoretical potential is far from exhausted. For instance, Carnegie Mellon University in Pittsburgh is developing secure Web3 applications based on SCION to address the numerous vulnerabilities in the internet. A 2022 US study found that approximately 36% of companies worldwide still use the FTP protocol, which is vulnerable to cyberattacks. As such, there is still a significant amount of work to be done to create a secure internet.

GABRIEL JURI

FURTHER INFORMATION:



SCION ASSOCIATION



Money is like medicine. If you use it wrongly, it becomes poison.

Károly Eötvös (1842 – 1916)