

Papers

Adoption of global market practice for payments will pave the road to a successful global migration to ISO 20022

Isabelle Bouille* and Tanja Haase**

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SWIFT, Avenue Adèle 1, B-1310 La Hulpe, Belgium

*E-mail: isabelle.bouille@swift.com

**E-mail: tanja.haase@swift.com



Isabelle Bouille



Tanja Haase

Isabelle Bouille leads the SWIFT Standards Market Practice Team. She is responsible for the High Value Payments Plus initiative, which plays a key role in the harmonised implementation of ISO 20022 by market infrastructures worldwide, and leads the Cross-border Payments and Reporting Plus project, which is a major pillar for successful ISO 20022 migration in the many-to-many space. She also represents SWIFT in the SEPA European Payment Council Instant Payments and Direct Debits working groups, as well as in the ISO Real-Time Group. Prior to joining SWIFT, Isabelle was Corporate Product Manager for France and Belgium at Deutsche Bank

Tanja Haase is Global ISO 20022 Migration Programme Manager at SWIFT. She heads up a cross-divisional team responsible for the planning and implementation of the cross-border payment migration to ISO 20022. Since joining SWIFT in 2008, Tanja has held positions in customer education, sales, market initiatives and standards.

ABSTRACT

As digital technology transforms the payments landscape, existing standards are no longer fit for purpose. Adoption of ISO 20022 — a newer, richer and more flexible standard — will enable market infrastructures to offer customers more innovative and efficient services. Reflecting this trend, SWIFT is embarking on the phased migration of payments

messages to ISO 20022. However, the success of ISO 20022 risks creating problems if there is too much variation in the way it is implemented. Such variation would fundamentally undermine the value of the standard itself. This article will explore how extensive consultation with the industry has provided a framework for SWIFT's ISO 20022 migration strategy. A collaborative approach to standards and adoption of global market practice is being taken to build on the success of ISO 20022 and ensure innovation continues in the cross-border payment landscape.

Keywords: international payments, ISO 20022, harmonisation, digitalisation, standards, market practice, gpi

INTRODUCTION

The global payments landscape is undergoing radical transformation as digital technology — which has already transformed many industries — offers opportunities for innovation and efficiency. Digitisation is driving consumer and business expectations for fast, frictionless payments that are embedded in transaction chains and eco-systems.

This transformation of payments is occurring in a rapidly growing market — global cross-border payments totalled US\$131tn in 2017, and international trade is forecast

to total US\$23.5tn by 2022, driving further payments growth.¹ During this period, select low-value payments in e-commerce are forecast to grow by more than 15 per cent.² Payments associated with securities transactions, which represent at least 30 per cent of all payments traffic over SWIFT, are expected to grow 9 per cent annually to 2021.³

Across the globe, the following key payments industry trends are emerging.

Open banking

Open banking is set to revolutionise retail payments, making it possible for FinTechs and other innovators to offer new products and services to a wide market. Financial regulators and legislators in many countries are encouraging moves to open the banking industry to greater competition. Open banking was introduced in the UK in January 2018 via Open Banking Ltd, which was set up by the Competition and Markets Authority to bring more competition and innovation to financial services. In the EU, open banking is being rolled out as required by the Revised Payment Services Directive. In Australia, open banking will be phased in from 1st July, 2019.⁴ In Hong Kong, the Hong Kong Monetary Authority published its Open API Framework in July 2018⁵ and the Monetary Authority of Singapore is also encouraging moves to APIs and open banking.⁶

Instant payments

Instant payment services, which settle in seconds, around the clock, 365 days a year, are being rolled out in many countries. At the time of writing, some 35 schemes have been launched, or announced, including those in the UK, the EU, the USA, Australia, Singapore, China, India and Japan. Most of these schemes are domestic; however, in Europe, a standard message format for instant payments — SCT Inst — has been developed.

Market infrastructure renewal

Payment market infrastructures (PMIs) are renewing aging infrastructure to support the innovation enabled by digitisation. Such renewal programmes will provide new functionality, such as instant payments, centralised collateral and liquidity management, and data-enriched standardised messaging.

Global adoption of ISO 20022

ISO 20022 is fast becoming the *de facto* standard for financial services, offering the interoperability and data richness unavailable in previous standards. Additionally, as well as being flexible enough to work with the latest technology, ISO 20022 can also adapt to new technology as it emerges. During the coming five years, major PMIs worldwide will migrate their operations to ISO 20022. In the same timeframe, cross-border payments will also migrate to ISO 20022.

ISO 20022 is a global success. It has been adopted by market infrastructures in more than 70 countries for payments and securities businesses, replacing domestic or legacy formats.⁷ By April 2023, if current announced deadlines are met, ISO 20022 will support 79 per cent of the volume and 87 per cent of the value of high-value payments worldwide. It is, or will shortly be, the principal standard in instant payments schemes worldwide.

The growing adoption of ISO 20022 in payments systems and other market infrastructures, combined with its inherent functional and technical advantages, have triggered a demand for the same standard to be used across borders.

THE DRIVERS OF THE MIGRATION TO ISO 20022

The MT standard is more than 40 years old and, by necessity (storage and bandwidth cost much more when the standard was developed), MT messages are brief and limited to a Latin-only character set. In recent

years, SWIFT has collaborated with the financial industry to develop and promote ISO 20022, which addresses many of the shortcomings of MT.

In April 2018, SWIFT launched a large-scale community consultation, seeking feedback on all aspects of a migration to ISO 20022, including timing, implementation strategy and phasing, community readiness, technology, market practice, interoperability with market infrastructures, new messaging capabilities and value-added features, and tools and support.

The consultation paper laid out a number of drivers for the migration of MT payments traffic to ISO 20022 and asked respondents to validate these and confirm whether they indeed justified a migration. The proposed timeline for the migration of cross-border payments would start in 2021 or 2022 and end in 2025 or 2026, depending on progress in the market infrastructure space.

The growing adoption of ISO 20022 in the PMI space and the need to maintain transparent interoperability with cross-border payments, together with compliance concerns regarding completeness and structure of data, were the two drivers most often mentioned.

SWIFT received more than 100 responses to the consultation paper, including country-level feedback from national member groups. The responses to the consultation paper indicate that the community is broadly supportive of the migration of payments and the proposed timeline.⁸ The need to align with the migration timelines of key market infrastructures such as TARGET and Fedwire was a recurring comment.

The four main drivers of ISO 20022 adoption for cross-border payments are explored below.

Financial market infrastructures

PMIs, which include high-value payments/real-time gross settlement systems, low-value

payments/automated clearinghouse and real-time retail payment systems, are critical service providers at the heart of the financial ecosystem. PMIs face a number of challenges, including regional market integration and international expansion, a continued need for further automation and cost-efficiencies, provisioning of new services such as real-time payments in response to new market entrants and customer demands, and the replacement of legacy systems, all while guaranteeing strong operational resilience.

As a result, many PMIs globally are undertaking infrastructure renewal projects to ensure their systems are suitable for the digital economy. PMIs in the USA, EU, Japan, Switzerland and China have either announced or completed ISO 20022 migration as part of overall infrastructure renewal projects. For example, the US Federal Reserve and The Clearing House (CHIPS) have both begun projects to migrate from legacy domestic formats and switch to ISO 20022 by 2022. The Eurozone's replacement for TARGET2 will go live in 2021 in native ISO 20022. In the UK, the Bank of England is planning to align payment messages across its main inter-bank payments systems — CHAPS, BACS and Faster Payments — with ISO 20022. In Japan, Switzerland and China, high-value payments systems are already live with ISO 20022.

In a cross-border context, financial institutions seek to maintain transparent interoperability of their cross-border payments. The adoption of ISO 20022 by market infrastructures will enable banks to implement seamless end-to-end processes as many cross-border payments either originate or terminate in transactions at market infrastructures. The adoption of ISO 20022 by PMIs will also influence the case for using ISO 20022 in cross-border transactions as banks that participate on those PMIs will be required to invest in ISO 20022 capabilities.

Compliance

Compliance has become a significant factor for financial institutions and many of the compliance processes that affect payments focus on party information, such as name, building number, street etc. In an MT message, party information is represented by four lines of 35 characters each — in either an unstructured format or one that distinguishes only name, country code, city and other details. With compliance obligations growing, concerns have been raised about the completeness and structure of data within MT messages. ISO 20022, on the other hand, enables richer party information to be included in the message, enabling financial institutions to comply with financial regulations that require party details to be complete, rather than truncated.

Sanctions screening relies on the scanning of message details against lists of sanctioned individuals and organisations. This screening is difficult because party information in a message is rarely an exact match to the details on sanctions lists, meaning automated solutions rely on identifying approximate matches in unstructured data. The result is high rates of false positives, each of which must be verified manually, causing additional expense, processing delays and customer dissatisfaction. The structure of ISO 20022 party information can make automated screening more efficient and reliable, reducing false positives.

Finally, some payment scenarios, such as payment on behalf of, require the debtor and/or ultimate debtor and creditor and/or ultimate creditor to be identified. ISO 20022 messages include specific data elements for this purpose.

Real-time and instant payments

By April 2018, 14 out of 28 real-time or instant payments schemes deployed globally had specified ISO 20022 as their standard. By 2023, 23 out of 35 schemes will be based

on ISO 20022 (an increase from 50 per cent to 66 per cent).⁹

Real-time and instant payments schemes require highly available, high-performance ISO 20022 payments processing capabilities, which for many banks is the trigger for a major re-engineering of internal payment systems. The technology used to underpin real-time payments may also be deployed for cross-border payments. Instant payment systems are often coupled with a set of overlay services that provide value-added services for customers. ISO 20022 definitions can be reused in the specification of overlay services to ensure consistency between data captured by the service and the underlying instant payment transaction.

It is expected that a market will develop for real-time cross-border payments, realised by the interlinking of these systems. Banks wishing to play a role in this market may require a cross-border ISO 20022 capability.

Corporate payment services

ISO 20022 is already in widespread use in the corporate-to-bank space, particularly for payment initiation, driven in part by the Common Global Implementation initiative. The initiative aims to simplify various payment-related corporate-to-bank implementations by promoting the wider acceptance of ISO 20022 XML. Representatives from banks, bank associations, corporates, corporate associations, vendors and market infrastructures work together to agree common implementation templates for various ISO 20022 financial messages. By publishing and promoting these messages, the group aims to attain their widespread recognition and adoption. A corporate can use the same message structure for all its payments with all its transaction banks, reaching any payment system across the globe.

In offering new services to corporates — and respecting existing service-level agreements — financial institutions are increasingly expected to ensure all data

submitted in corporate payment initiation will be transported end-to-end through the value chain. To do this, they must migrate to ISO 20022 in their corporate banking services.

Another driver of ISO 20022 adoption is SWIFT *gpi*, which enables banks to offer the cross-border payments experience their customers demand. SWIFT *gpi* provides same-day use of funds, transparency of charges and real-time access to status information in correspondent banking. ISO 20022 promises to enable further service improvements based on the enhanced data that it supports. SWIFT is working with the *gpi* user community to identify additional transaction management services enabled by ISO 20022.

The results of the industry consultation on ISO 20022 migration were presented to the SWIFT board in September 2018, along with two recommendations, which were formally approved by the board:

- SWIFT to facilitate a migration of cross-border and many-to-many payments and cash management traffic to ISO 20022 starting in 2021; and
- SWIFT to develop a centrally managed translation service to facilitate migration during a four-year coexistence phase.

Asked if the combination of drivers justified the migration of cross-border payments to ISO 20022, 87 per cent of respondents to SWIFT's migration consultation paper agreed.

THE IMPORTANCE OF A HARMONISED IMPLEMENTATION OF ISO 20022

As ISO 20022 emerges as the preferred messaging standard for market infrastructures globally, implementations are proliferating. This means, however, that the ways in which the standard are deployed can vary, in terms

of message versions, market practice rules and release cycles. This variation threatens to undermine the value of the standard itself. Large, global transaction banks face high costs in connecting to several PMIs, each with different nuances of ISO 20022 implementation. A standardised, global approach to ISO 20022 will lower the implementation costs for the industry as a whole.

In 2015, SWIFT launched an industry programme, the Standards Harmonisation Charter, to ensure the cost-effective and seamless adoption of ISO 20022 by market infrastructures and their communities. The charter sets out a series of measures designed to drive harmonisation of the rollout of ISO 20022 based on four principles:

- *Sharing of information:* Market infrastructures share information about their ISO 20022 implementation plans with other endorsing and supporting market infrastructures.
- *Adherence to market practice:* Market infrastructures adhere to global ISO 20022 market practices and base their own usage guidelines on these market practices. A number of the market infrastructures are developing global ISO 20022 implementation guidelines for high-value payments systems, under the HVPS+ taskforce.
- *Adherence to the message version and release management:* Market infrastructures update to the latest ISO message version in line with the ISO 20022 release cycle.
- *Publishing information on a common and global platform:* Market infrastructures share their ISO 20022 usage information on MyStandards, the collaborative online platform for users of SWIFT MT, MX and ISO 20022 standards.

THE MARKET INFRASTRUCTURE RESPONSE

In 2016, under the auspices of the Payments Market Practice Group (PMPG), SWIFT

and a group of market infrastructures and financial institutions formed the HVPS+ task force. The task force aims to address the evolving ISO 20022 standards requirements of high-value payments systems providers in a collaborative way. It has created a common foundation of global ISO 20022 market practice and implementation guidelines to ensure a harmonised rollout and implementation of ISO 20022 for high-value payments systems (HVPS). This will enable interoperability between HVPS globally that will go beyond existing ‘like for like’ HVPS guidelines, which restrict the ISO 20022 messages to the data and functionality available in the FIN MT message sets.

The guidelines developed by HVPS+ will be used by a number of market infrastructures, including the ECB for its TARGET2 renewal programme, the Bank of England in its renewal of payments infrastructures, and in the USA for the Fed and TCH ISO 20022 implementations. The commitment of these market infrastructures to adhere to global market practice will ensure consistency and interoperability and reduce the chance of market discrepancies.

HVPS+ has built on the existing HVPS market practice documented in MyStandards, which focuses on ensuring interoperability with FIN messages in the cross-border space. The HVPS+ task force will go beyond current market practice to deliver an additional set of ISO 20022 market practice guidelines that consider the needs of market infrastructures and their customers. The guidelines will include more structured, accurate and richer end-to-end data. The aim is to create a common foundation on which major PMIs can build their community implementations, while supporting global interoperability.

The following organisations are participating in the HVPS+ task force: ABN AMRO, Australian Payments Clearing Association, Banca d’Italia, Bank of America

Merrill Lynch, Bank of England, EBA Clearing, European Central Bank, Federal Reserve Bank of New York, FirstRand Bank Ltd, Hong Kong Interbank Clearing Limited, Payments Canada, Société Générale, Standard Bank, The Clearing House and Wells Fargo.

THE NEED FOR A COMMON MARKET PRACTICE FOR CROSS-BORDER PAYMENTS

The work of the HVPS+ task force acknowledges that a standard in itself is not the full answer — market practice must also be harmonised as much as possible. For example, ISO 20022 allows various ways to identify parties in a payment chain, including different international or local identification codes, but also name and address. In market practice, however, the identification of a party can be limited to a bank identifier code (BIC) or legal entity identifier (LEI), both of which allow for better screening.

Market practice groups such as HVPS+ will formulate guidelines to ensure that the implementation of the standard is harmonised for particular use cases.

Another group tackling payments harmonisation is the ISO 20022 Real-Time Payments Group (RTPG), which is driving international best practice for interoperability across cross-border real-time payments. Mandated by the global ISO 20022 Registration Management Group, the RTPG publishes usable sets of ISO 20022 usage guidelines that have driven value added harmonisation through a consistent view of ISO 20022 business processes, message components, elements and data content across multiple markets for the purposes of real-time payments.

ISO 20022 implementation consistency and best practice for real-time payments delivers several key benefits, including:

- a consistent approach to collaborative information exchange focusing on standards

delivers cost reduction, agility and speed to market;

- harmonisation and interoperability between implementations provide enhanced resilience and security;
- best practice benefits new entrants or new adopters as it provides a baseline for implementation; and
- real-time payments introduce performance and availability considerations and are influenced by a number of other factors within a cross-border environment. The messages developed are intended to remain sufficiently agnostic to the commercial implementation decisions that need to be made in this area.

The RTPG comprises a broad group of more than 70 stakeholders from 17 countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, India, Italy, Japan, Norway, Poland, Switzerland, the Netherlands, the UK and the US, with representation from payments associations, payment service providers, financial institutions, international and domestic clearing houses, payment schemes, regulators and the supply side.

A transition to ISO 20022 by PMIs within a harmonised market practice environment will bring a number of benefits, including improved transparency and better message filtering, due to the richer and better structured data, and a future-proof payment standard across established systems (such as TARGET2, CHIPS, CHAPS, etc) as well as newly developed payment schemes including instant payments.

However, there are challenges. The scale of the changes required and the resources needed to implement ISO 20022 represent a significant investment for financial institutions and market infrastructures. To succeed, alignment and collaboration must occur across the entire financial services industry.

Defining and adhering to global market practices and harmonised implementation

approaches that take into account elements such as maintenance cycles, version management, etc will be key success factors and will reduce implementation effort and cost.

Procedures that are common across markets can be implemented and done in a consistent way across applications, leaving room for financial institutions to focus on differentiation, improved services and customer experience.

THE WAY FORWARD: SCOPE, TIMELINE AND DELIVERABLES OF CBPR+

SWIFT Standards, working with the PMPG, has created a Cross-Border Payments and Reporting Plus (CBPR+) working group. This group is tasked with formulating and publishing global usage guidelines to govern the use of ISO 20022 for cross-border payments and cash management on the SWIFT network, and with reviewing MT/ISO 20022 translation rules. Terms of reference have been agreed that set out the work products, working mode and composition of the group. The group will work iteratively, regularly publishing draft content on the MyStandards platform for community review and comment. The ultimate goal is for a common roll-out and implementation of ISO 20022 by banks for cross-border payments.

The work will fit with the ISO 20022 harmonisation initiative, will include the requirements from SWIFT's gpi initiative and will use the HVPS+ implementation guidelines as the basis to ensure end-to-end processing without data loss.

To meet the requirements set by the gpi community for faster gpi payments, and effective identification and tracking of instant payment transactions, the CBPR+ group will formulate a collection of usage guidelines which will be common to instant payment systems, the cross-border payments user community and the gpi tracker.

CBPR+ guidelines will define how ISO 20022 messages are to be used and validated

on the SWIFT network. Therefore, an important deliverable of the CBPR+ group will be a proposal for an agreed, rigorous and transparent governance process for version management and maintenance of the usage guidelines. This will be documented in a cross-border usage guidelines development and maintenance processes paper.

The CBPR+ group will remain in place after the delivery of a set of implementation guidelines to maintain the published set of guidelines with the ISO 20022 message releases and to deal with evolution and future requirements.

The group comprises two categories of participants — core members and observers. The following countries are represented by a core member: Australia, Austria, Canada, China, France, Germany, Hong Kong, Italy, Japan, Luxembourg, The Netherlands, the Nordics, Russia, South Africa, Spain, Switzerland, the United Kingdom and the USA. In addition, the securities industry is represented by a member of ISSA.

As members represent their specific community, each is responsible for reporting into that community and ensuring that its needs are represented in all workshops. Observers will include other interested parties. They will not attend meetings but will have access to all documentation and will be able to comment. Their comments will be discussed by core members.

Liaison, facilitated by SWIFT, will take place between the HVPS+ and CBPR+ groups to ensure that both groups are kept informed of progress made by each initiative, full sets of documents are shared equally with the two groups and change requests to usage guidelines are shared, discussed and agreed by both groups.

A first set of market practice and usage guidelines is expected to be posted on MyStandards in 2019, based on Standards Release 2019 version of the ISO 20022 messages. This documentation will then be revised on a yearly basis to include approved

change requests submitted to the group.¹⁰ Change requests for CBPR+ guidelines will be collected throughout each year, up to a deadline in April, at which time the CBPR+ group will review them and make changes (where justified). Publication of the new versions of usage guidelines will be in January of the following year, and the new versions will be live on the SWIFT Network in that year's standards release (usually in November).

HOW TO GET INVOLVED

With the migration to ISO 20022 looming, payments industry professionals should be planning their migration strategies. The relevant specifications from the CBPR+ working group will be published as usage guidelines on the MyStandards platform, which is a collaborative web platform that enables users to manage, apply and use standards effectively across markets and business processes. It contains all current MT, MX and ISO 20022 base standards definitions. It is also a platform for creating, publishing and sharing specifications and usage guidelines for users and customers. Banks, securities firms, corporates and market infrastructures can use it to centralise and manage their standards releases and specifications more efficiently across product lines, markets and business processes.

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