



PAYMENTS MODERNIZATION

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Getting the message across: ISO 20022 data standards



Part 4:

The promise of ISO 20022

Chapter three of our payment system modernization insights series featured a deep dive into the rapid and widespread development of real-time payment systems around the world, which have been a core component of the payments modernization push.

Speed and immediacy are often quoted as the headline benefits however another intrinsic catalyst for change is the value that can be derived from increased data and messaging capabilities, which are borne out of native support for ISO 20022 within a real-time payment infrastructure.

This chapter highlights the benefits of ISO 20022 and illustrates why payment systems around the world are migrating to the message standard as part of ongoing modernization initiatives. Also how, as a global standard, software and services can now be standardized across multiple markets opening the possibilities of interoperable connections between multiple payment systems. This will ultimately offer a broad set of benefits for all market players – for example, they will be able to lower their operational and maintenance costs over time, especially where there is potential for enterprise consolidation and cross-border capabilities.

Furthermore, we explore best practice for integrating to a real-time payment system and bring into focus the true potential of ISO 20022 by fully exposing the richness of the data carried to drive benefit realization.

"ISO 20022 message standards are a tool to unlock a markets national strategic payment visions."

Growing in stature

ISO 20022 is not a new standard, nor is it the only standard available, but there is no question that in recent years its prominence has been an increasing feature of payments modernization discussions.

With its improved data structure, extensible message sets (designed to accommodate changes), and the potential to interoperate between domestic and international payment systems, ISO 20022 message standards are a tool to unlock a markets national strategic payment visions. And it simultaneously enables several key pain points that exist for both banks and their end users to be addressed.

The improved structure of these standards facilitates the transfer of rich remittance information, which helps financial institutions and their customers improve operational efficiencies, especially by achieving higher rates of straight through processing (STP). This is well highlighted by one recent study that estimated that **failed payments cost the global economy \$118.5 billion each year**. Additional benefits are achieved through enhanced risk monitoring, fraud prevention, and an ability to provide other valuable services through data-driven business insights.



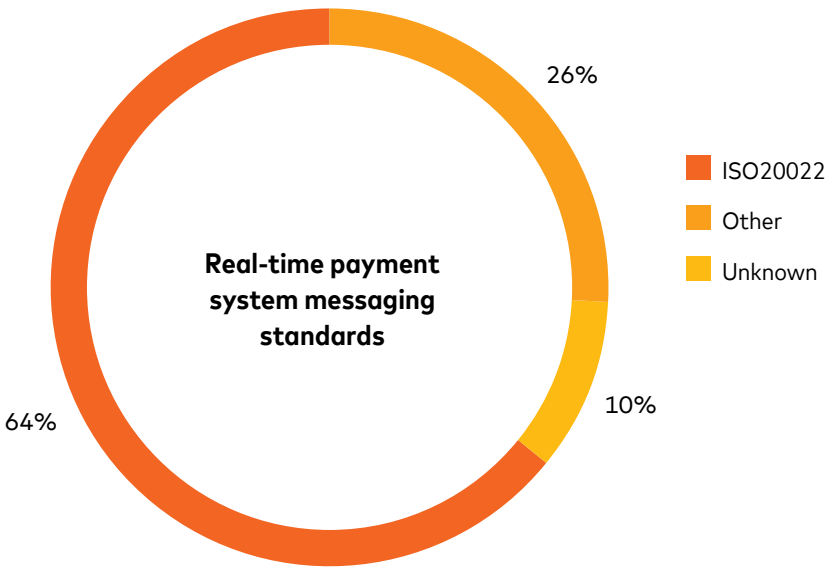
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of 61 real-time payment systems
are based on ISO 20022 standards

The extensible message set will have a significant impact as it allows messages to evolve with the payment system, adapting to support new services, use cases and message requirements. It also supports a range of non-payment messages, such as 'request to pay' (or 'request for payment') and 'credit confirmation', which allow financial institutions to develop new customer propositions. In turn, this generates revenue opportunities and drives differentiation within a marketplace that is becoming increasingly crowded.

Once widely adopted, the standard can allow for interoperability between related industries, as well as between domestic and international payment systems, helping to achieve greater resource efficiencies and levelling the playing field for competition and innovation.

A recent Mastercard review of 61 real-time payment systems around the world found almost two-thirds were based on ISO 20022 data standards. Several of the markets not currently using ISO 20022 have plans to upgrade to the standard.



Source: Mastercard analysis

"ISO 20022 is the obvious choice for a country setting out on, or redefining, its payments modernization journey."

Meeting migration mandates

While the long-term benefits are clear, industry migration will be complex. With multiple requirements and various mandates on banks to adopt ISO 20022, managing this process strategically is vital.

Central banks are increasingly upgrading or installing new real-time gross settlement (RTGS) systems that are ISO 20022-compliant, while SWIFT has announced its planned migration to ISO 20022 to member banks. Following a period of migration from the end of 2022, SWIFT is mandating that all financial institutions must be able to send and receive ISO 20022 Cross-border Payments and Reporting Plus (CBPR+) compliant messages for cross-border payments by November 2025.

Compliance, whether regulator or operator driven, becomes an important factor in the push towards ISO 20022. For example, while modernized national and regional payment systems may be ISO 20022 ready, there is often significant cost and logistical implications for financial institutions and large corporates to upgrade their systems to support the new standard.

So, while ISO 20022 is the obvious choice for a country setting out on, or redefining, its payments modernization journey, re-engineering existing systems is both a challenge and has wide implications across multiple stakeholders.

The value for banks, processors, and central banks in partnering with those with the knowledge and experience of navigating these complex challenges should be a key consideration. Mastercard has a wealth of experience in developing and demonstrating the value of use cases that can be enabled by ISO 20022 data and offers support to scheme operators in managing this process through significant change. Whether through the provision of technical solutions, ecosystem and scheme design or by provision of support with crafting the rules and best practices that enable participants to realize value sooner, Mastercard can leverage over 50 years' experience running and operating technical infrastructure and a scheme, to enable success for other payment ecosystems.

"A phased transition from legacy formats prevent operators, financial institutions and corporates from taking full advantage of ISO 20022's potential."

For example, we supported Saudi Payments in the successful roll out of its sarie system across all banks operating locally, using the most advanced technology built on the latest ISO 20022 messaging standards. Mastercard also worked with The Clearing House (TCH) to launch its RTP Network®, which uses ISO 20022 data standards to enable a range of payment and non-payment messages. "This makes it a very conversational system," says Peter Davey, head of product innovation at TCH. "It allows you to ask a question in context of the transaction and within that same secure channel. It's a key component in contextual commerce."

To ease the burden in the short term, many modernized payment systems have adopted a phased transition from legacy formats. While this can offer a number of benefits, including reducing the risk involved during transition, it's also important to ensure that such a bridging strategy, facilitated by translation layers or adapter, does not become the permanent state, causing delays that prevent operators, financial institutions and corporates from taking full advantage of ISO 20022's potential.

In Colombia, for instance, there are two sets of translation layers on a message and there is even talk of adding a third as new services are planned. While scenarios like this are not ideal if they were to become permanent features rather than just migration enablers, they're often reflective of the fractured nature of development in some markets.

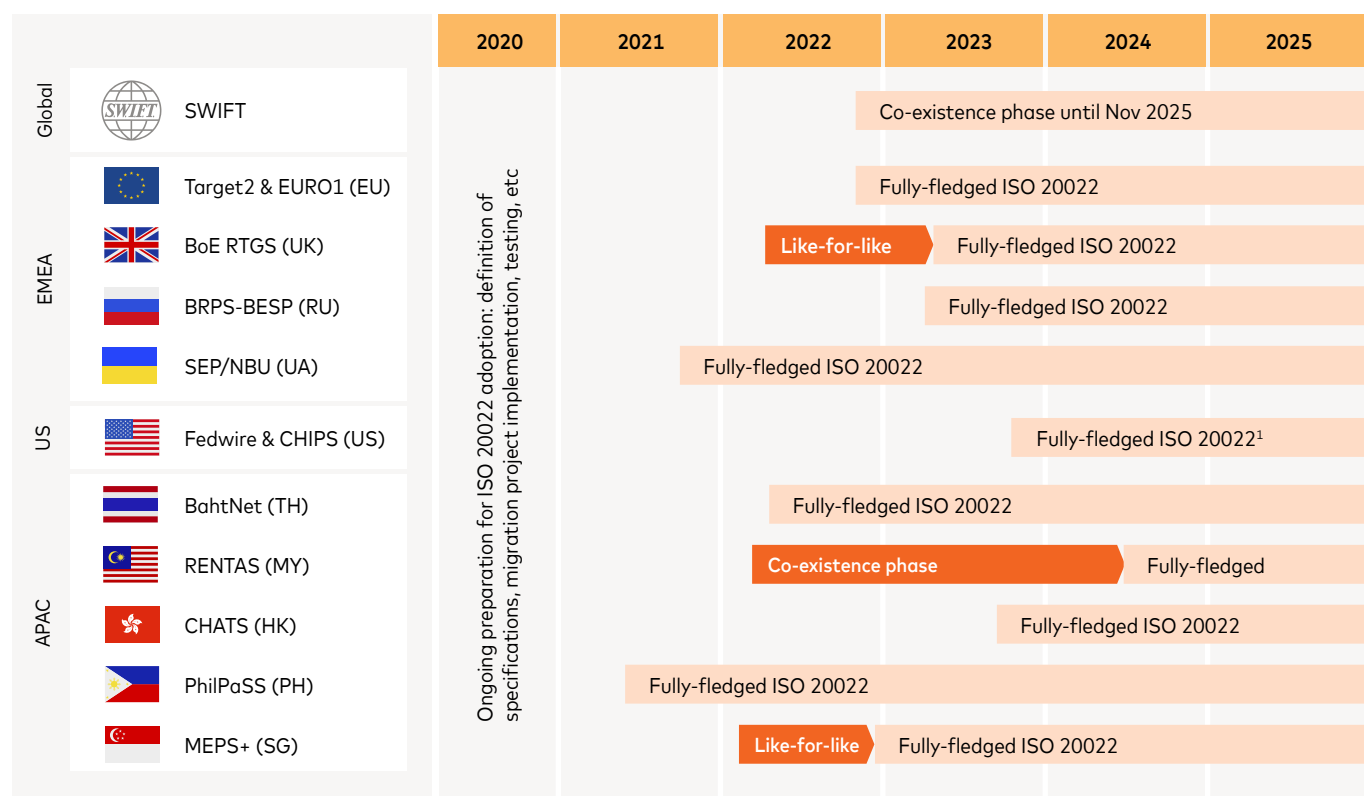
Different jurisdictions and payments ecosystems will vary in how they approach migration. SWIFT's decision to delay initial migration to ISO 20022 by a year, now starting in November 2022 due to COVID-19-related challenges, has had a big impact on other planned migrations. For example, the ECB announced a similar delay to November 2022 for Target 2 migration to ISO 20022, which was followed by EBA Clearing's decision to align its EURO 1 and STEP 2 migration with this same timeline.

This alignment makes sense where relevant as it can help reduce the burden on banks. Tackling them together helps to reduce costs and disruption and ensures that banks and their customers get the benefits sooner.

SWIFT's revised timeline has also had an impact in several Asia Pacific markets, such as Hong Kong and Malaysia, which have now aligned their RTGS migrations to ISO 20022 with that of the global messaging service.

In Thailand, migration of the BAHTNET RTGS system to ISO 20022 is part of a wider move that includes bulk payments and the real-time service, PromptPay. The central bank regards migration as important not just to support the transmission of improved business data and payments data, but also interoperability with other markets.

Figure 1: Global ISO 20022 adoption overview



¹"Earliest" go-live date in Nov 2023, the exact timeline to be confirmed by the end of 2020

Source: Deutsche Bank

"Migration should be driven by demonstrating the potential value that ISO 20022 can create for financial institutions and their customers."

"ISO 20022 can provide a common and standardized means for exchanging large amounts of data."

Unlocking value-adding new services

Migration should not just be driven from a technical perspective, but by demonstrating the potential value that ISO 20022 can create for financial institutions and their customers. The full value of ISO 20022 becomes clearer as connections deepen and use cases evolve.

In some markets, such as the United States, mobile person-to-person (P2P) payments have been adopted as an early use case to help grow the scale and reach of real-time payment systems. In this specific use case, the benefits of additional messaging data may be relatively limited. However, when it comes to more advanced use cases, such as payment requests, business-to-business (B2B) payments and specific disbursement types, a lack of standardized messaging data may become a hindrance to banks' ability to drive revenues and meet customer needs through new enhanced services, and to corporates' chances of realizing cost efficiencies. Combined with wider market moves around RTGS services, these use cases can become a real catalyst for adoption.

As mentioned earlier in the chapter, the ISO 20022 catalogue includes a 'request to pay' message. This non-payment message allows a business or other entity to issue a payment request to a customer with the remittance information included. The customer can simply and securely respond to this request, and systems then initiate the credit transfer.

This can reduce the processing costs and risk of error compared to manual capture and processing of invoices, streamline reconciliation processes, and reduce delays in accounts payable to improve cash flow management.

For B2B payments, when businesses trade with each other, they need to communicate different sets of information about what they are paying for, which is used for purposes outside the actual payment itself. This may include details on what has been bought, the supplier, costs and credit notes. As older payment messages were not designed to carry much of this information, reconciliation often occurs through separate documents. While in some cases this is relatively straightforward, it can also be a burden on business operations. If there are any exceptions, it can become a costly and time-consuming experience.

ISO 20022 can provide a common and standardized means for exchanging large amounts of data with the payment message allowing for automated reconciliation or the presentment of value-added services such as trade or invoice financing options.

"In the second half of 2021, the UK experienced total fraud losses of £753.9 million of which £355.3 million (an increase of 71%) was associated with APP fraud"

– UK Finance: 2021
Half Year Fraud Update

The persistent fight against fraud

The benefits of ISO 20022 should also not be overlooked when it comes to financial crime, in terms of both AML (Anti Money Laundering) and fraud.

As with any changes in technology, the shift to modern real-time payment systems potentially provides a new attack vector for criminals. The richer data carried by the ISO 20022 standard can be used to combat these dynamic shifts in fraud, with specific attention on certain types where losses continue to grow, such as Authorized Push Payment (APP) fraud, which in the case of the UK, for example, recently overtook card fraud losses for the first time. In the second half of 2021, the UK experienced total fraud losses of £753.9 million **of which £355.3 million (an increase of 71%) was associated with APP fraud**. This is a global problem, with the European Payments Council (EPC), for example, also noting an increase in APP fraud and two Democrat senators in the US recent **writing to Zelle**, the money transfer app, about concerns over reports of rising fraud.

When we consider the challenges associated with retail and correspondent banking payments in this evolving fraud context, it's becoming imperative to identify the risk across all parties in the end-to-end payment flow, which now has added complexity due to a myriad of new players in any given flow, such as open banking third-party providers (TPPs).

With ISO 20022 there's the potential to carry more data across the entirety of the payment itself, whether that is the expanded data fields, associated risk score(s), device analytics or other verifiable metrics that can be used to increase the certainty of a genuine transaction, thus reducing false positives and time-handling exceptions.

The fight against financial crime is of course a hugely important one, and the adoption of ISO 20022 has a role to play, given the ability it brings to carry additional information as part of the payment message. Those entities that manage the utilisation of additional data points to prevent fraud, while simultaneously reducing friction in the payment flow will establish an enviable position. That said, there will need to be a conscious balance struck between introducing any additional friction into the end-to-end payment process and increasing the ability to prevent fraud.

Regional variability

Another important consideration is that while ISO 20022 is a global standard, the framework by which it is implemented and the way the message is used may well vary across different markets.

The adaptability of the message means there is plenty of scope for customization and localization. This is another potential benefit as it enables different markets to adapt the message to support the specifics of their authority, regulatory regimes and other data requirements.

However, it also means when we talk about harmonization and interoperability, particularly for cross-border services, it is not simply a question of connecting point A to point B. While in practice using ISO 20022 means it will be significantly easier to translate and truncate data to enable connections compared to two proprietary message standards (there is after all a common structure to the message), the degree of localization that is desirable is nevertheless a consideration that should be made when developing a payments modernization framework.

To help alleviate some of these potential issues, ISO has created a repository of message usage definitions and guidelines. This includes a catalogue of 16 different messaging definitions supporting various payment-related use cases, including payment initiation, payment requests, payment mandates and cross-border transaction currency control reporting.

In an increasingly competitive landscape, ISO 20022 message standards can smooth the process of innovation, which is critical to long-term success. ISO 20022 delivers operational efficiencies while promoting and supporting the development of value-add products and services for banks, businesses and consumers alike. As the shift to ISO 20022 rapidly picks up pace, those financial institutions that stay wedded to older standards risk being left behind.

Collaborating with the right partner to modernize your payment system is crucial. Mastercard has the expertise, experience and assets to support any industry participant during their transition to ISO 20022 message standards. We can help to design, create and run a payment system that conforms to the latest international standards and best practices, while remaining adaptable to local specifications.

For more insights and information about payment system modernization, visit

b2b.mastercard.com/paymentsmodernization



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