Deutsche Bank
Corporate Bank

Guide to ISO 20022 migration

Part 2

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Our “Guide to ISO 20022 migration: Part 1” was published in May 2019 and this, Part 2 in our series of ISO 20022 guides, follows only four months later. Yet the migration to this new global standard for payments messaging has made significant progress even in such a relatively brief period of time.

While there has been a flurry of activity and numerous usage guidelines and updates during 2019, the main drivers continue to be SWIFT – the global body steering the migration in the correspondent banking space – and the Market Infrastructures (MIs) responsible for the world’s major currencies.

As Part 1 of the Guide emphasised, banks should not consider the migration to ISO 20022 as just “another IT project” and it’s equally important that corporates do not make the mistake of writing it off as just “another bank project”.

So whether it’s a global bank implementing seismic changes, or a small corporate taking more modest steps, all market participants need to be regularly updated and ensure they are moving in the right direction. This “Guide to ISO 20022 migration: Part 2” offers guidance for picking a successful route for migration and securing the full benefits of ISO 20022. Further Guides are planned as the journey continues.

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Foreword

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Most banks will have already started their journey as they migrate to the new messaging standard of ISO 20022, while Market Infrastructures (MIs) push ahead with their own preparations. Of course, all this will not happen overnight: the ISO 20022 migration will take years to fully implement and will not be without its challenges

Yet the industry is coalescing to meet these challenges head-on. Throughout 2019, we have seen the release of numerous usage guidelines – including Cross-Border Payments and Reporting Plus (CBPR+) for cross-border payments and updated User Detailed Functional Specifications (UDFS) for the Eurosystem. Further updates are expected imminently, with CBPR+ guidelines for a number of core Cash Management (camt) SWIFT messages set for release in November, and an update incorporating approved change requests to the UDFS guidelines expected by the end of the year. In preparation, market participants must begin to understand, and speak, the various guideline "dialects".

In parallel, SWIFT has begun developing a number of tools to facilitate the transition: a translation sandbox to translate FIN messages into the ISO 20022 format before they are sent and a translation service for incoming MX messages, with three implementation models to be considered by those receiving payments.

The benefits of ISO 20022 migration are clear: uplifted customer experience, more streamlined compliance procedures, and the ability to deliver new services. Yet with so much change, keeping abreast of the latest developments and understanding the key points for consideration is a minefield. It is for this reason that we produced this guide.

As I explained in the introduction to Part 1 of this Guide published in May 2019,[1] it's important that banks don't consider the migration to ISO 20022 as just "another IT project". Correspondingly, I consider it vital that corporates do not make the mistake of writing it off as just "another bank project".

While ISO 20022 first and foremost affects bank's payment chains and operational workflows, the impact for large corporates and multinationals will be significant, especially for those with in-house bank or payment factory set-ups. These organisations, like those in the banking industry, would be well-advised to set-up a project to prepare for the effects of ISO 20022.

Whether a global bank implementing seismic changes, or a small corporate taking the necessary steps, market participants will need to stay updated and begin to head in the right direction.

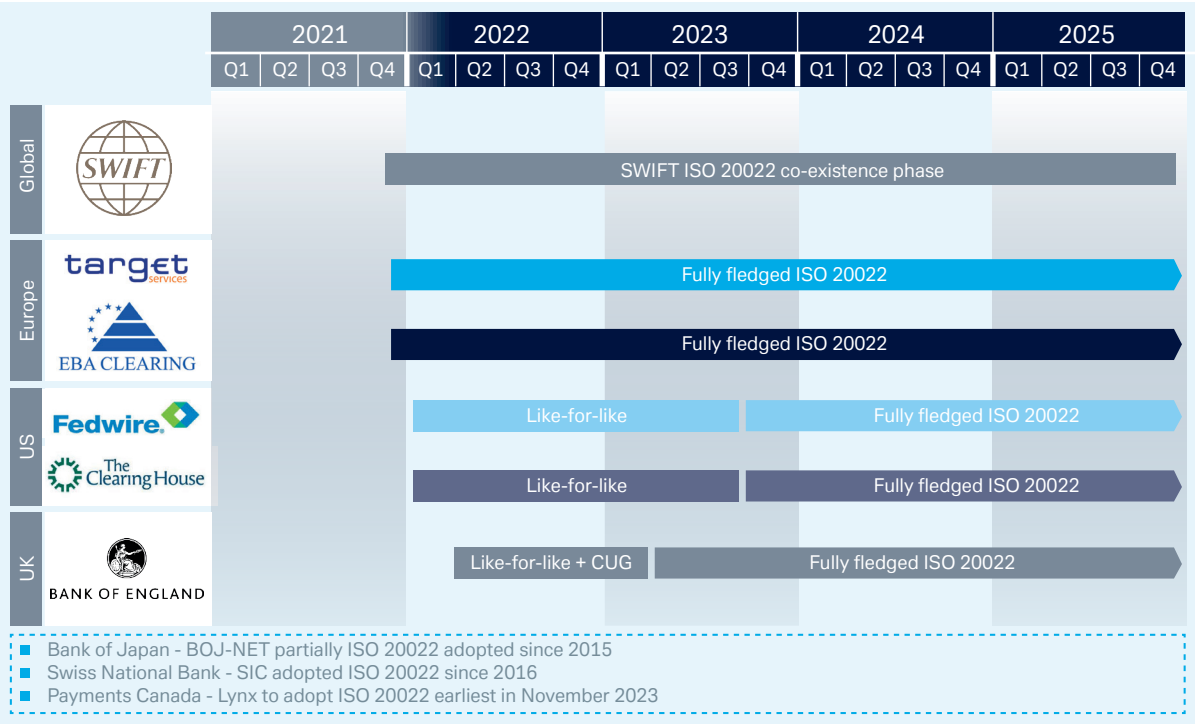
With this in mind, we hope this "Guide to ISO 20022 migration: Part 2" will help you pick a successful route for your own migration.

1

Latest developments and communication

Since our last paper, "The Guide to ISO 20022 migration",[2] the global migration to ISO 20022 has continued to make significant strides. The impetus is still being driven predominantly by the activity of SWIFT, the global body steering the migration in the correspondent banking space, as well as the Market Infrastructures (MIs) responsible for the world's major currencies – namely, the euro, the US dollar and the pound.

Figure 1: ISO 20022 migration timeline by region



Source: TARGET Consolidation Contact Group, ECB

1.1 The global view: SWIFT

Scope of the migration

The global migration of payments to the ISO 20022 standard affects all banks with many-to-many relationships in the correspondent banking space and all users of payments and cash management messages (MT categories 1, 2 and 9).

While the scope of the migration does not extend to corporate-to-bank traffic (Standardised Corporate Environment or SCORE) and is not mandatory for MIs operating a closed user group in FIN (MI-CUG) formats, there will nevertheless be implications for all market participants. The global migration to ISO 20022, including for SWIFT global payments innovation (gpi) services, represents a great opportunity to reconsider processes and align them more closely with current and future needs.

What's new?

As part of its current phase of preparations for the migration, scheduled to conclude at the end of 2019, SWIFT is looking to promote readiness for the transition and disseminate detailed specifications to market participants. To this end, it has set up a Cross-Border Payments Reporting Plus (CBPR+) working group to develop global usage guidelines (see Section 2.1.1: Variety of usage guidelines for more details).[3]

SWIFT's current migration timeline also requires several other tasks to be completed by the end of 2019, including the definition of the following core messages (in the order of scheduled delivery) by November:

- camt.052 (Bank To Customer Account Report)
- camt.053 (Bank To Customer Statement)
- camt.054 (Bank To Customer Debit Credit Notification)
- camt.057 (Notification To Receive)
- camt.060 (Account Reporting Request)
- BAH v2 (Business Application Header)
- camt.056 (FI To FI Payment Cancellation Request)
- camt.029 (Resolution of Investigation).

The usage guidelines for pacs.008 (FI To FI Customer Credit Transfer), pacs.009 (Financial Institution Credit Transfer), pacs.004 (Payment Return) and pacs.002 (FI To FI Payment Status Report) have already been published by CBPR+ on SWIFT's MyStandards platform.[4]

> If you do not have access to the CBPR+ group yet, you can sign up by following this link: https://www2.swift.com/mystandards/#/c/cbpr/landing and clicking "Request access". Once you have access to the CBPR+ group, open MyStandards and search for CBPR+.

The remaining messages will be addressed in a second phase throughout 2020 ahead of the November 2021 migration.

1.2 The Eurozone

Eurosystem (TARGET services)

The Eurosystem continues to work towards realising its "Vision 2020" ambition, uniting and centralising its instant payments, real-time gross settlement and securities settlement systems under the "TARGET services" banner.[5] In July 2019, the European Central Bank (ECB) published the second version of its "User Detailed Functional specifications" (UDFS) – providing guidance on the updated TARGET 2 (T2) service. The guide is divided into two documents: one providing information on the real-time gross settlement (RTGS) system for processing of real-time inter-bank and customer payments (and other ancillary systems);[6] and the other focusing on the "provision of information needed for Central Liquidity Management (CLM) actors to design and build the interface of their business application with CLM".[7]

The next version of the UDFS guidelines (version 2.1) is scheduled to be published by the end of 2019. The new guidelines will incorporate the Change Requests that have been approved in the meantime, which are primarily related to envisaged changes to the business day, including:

- The week-day maintenance window being made optional if activated between 03:00 and 05:00
- The introduction of a warehoused payment modification window from 19:30 to 02:30
- The settlement of interbank and customer payments from 02:30.

Such changes will impact the operations and liquidity management of banks.

The respective T2 ISO 20022 usage guidelines published on MyStandards will be updated in line with the publication of the UDFS and are expected to reflect additional changes.

For Eurosystem participants, the "Big Bang" migration will take place on 22 November 2021 – leaving communication with the T2 system only possible with the new formats. As part of this, access to all the TARGET services – encompassing T2, T2S and TARGET Instant Payment Settlement (TIPS) – will be provided through a single gateway, known as the Eurosystem Single Infrastructure Market Gateway (ESMIG). Market participants will, however, be able to connect via two different network service providers – SWIFT and SIA Colt.[8]

To ensure that the whole T2 community is ready, the Eurosystem has revised its migration plan, adding additional, more granular milestones to ensure a smooth transition. By the end of September 2019, for example, participants should have completed a detailed business and technical impact assessment to adapt their IT systems and processes to the changing services of T2 and begun drafting their internal applications documentation.[9]

The T2 system is set to go live with the 2019 version of ISO 20022 in November 2021.

EBA Clearing

EBA Clearing is scheduled to move its core systems – EURO1 (the private-sector high-value payment system for same-day euro transactions)[10] and STEP1 (a complementary payment service for individual payments)[11] – to the ISO 20022 messaging standard in line with the Eurosystem's migration timelines for the T2 platform.

As part of this, EBA Clearing has published the first draft of the specification document for the EURO1 and STEP1 migration process, which highlights that payment message interface specifications for the two systems will be fully aligned with those of T2, based on the ISO 20022 2019 version.[12] In April 2019, EBA Clearing also released an impact document for the ISO 20022 migration, explaining which areas of the current functionality will be untouched, which will be

updated or redeveloped, and what impact this will have on participant banks.[13] Currently, no enhancements are planned to maximise the benefits of the migration (although enhancements and additional information may be added in the future, subject to proposal by the community following full implementation).[14]

The system's only substantial changes in functionality therefore result from the shift from the traditional Y-copy topology to the new V-shape in line with T2. Users may also look forward to some improvements. For example, it will be possible to warehouse payments for 10 calendar days, as opposed to five value days under the old system, or to cancel/recall not only warehoused payments, but also those that have successfully been processed within the last seven calendar days.[15]

1.3 US dollar area

The migration to ISO 20022 in the US revolves around the US Federal Reserve's Fedwire and Clearing House Interbank Payments System (CHIPS) services, which are currently planned to make the move in three phases. Preparation is currently underway with migration set to begin in November 2020. In March 2019, the Federal Reserve updated its Fedwire Application Interface Manual for a final time, announcing version 4.0.2 as the "locked down" version that will be implemented in November 2020.[16]

Along with other central banks, however, conscious of recent developments in the many-to-many space and keen to reflect market readiness, the Federal Reserve's approach is currently being reconsidered, with further updates likely to arrive in Q4 2019.

1.4 Sterling area

In the UK, migration is being driven predominantly by the Bank of England's renewal of its Real-Time Gross Settlement (RTGS) system (though other systems, such as BACS and Faster Payments, have subsequently been mandated to make the switch). As with the US Federal Reserve – and with the same considerations in mind – the Bank of England is currently reviewing its approach and may announce any change of plan at Sibos in London in September 2019.

Nevertheless, developments have taken place in the last few months. On 13 January 2019, the Bank of England released a document outlining the new services offered under its renewed system, including the reconfiguration of data sent and received through the system to align with ISO 20022 – leading to new liquidity and value-day reporting benefits, such as notification of successful settlement.

The document also offers an update on the timeline, outlining four "transition states":

- Foundation – a preparatory phase where relevant participants are engaged, early benefits are delivered and system resilience is increased, where possible
- Participant Data Channels, where sent data is reconfigured based on ISO 20022, with further benefits delivered
- Core RTGS Replacement, where the core RTGS systems are rebuilt and technical changes are consolidated
- Fully Renewed Services (where all changes are finalised and non-critical elements are factored in.

In its August 2019 Annual Report on RTGS and CHAPS,[17] the Bank of England highlighted that the next step in its renewal process is to continue working with external participants on the Foundation phase – developing the design of the new platform and preparing for implementation.

2

Overall impact for market participants

As the 2021 deadline to move to ISO 20022 for FI to FI Payments & Reporting draws nearer, there are various developments which banks and corporates will need to be aware of and potentially act upon. This section explores some of the major ones.

2.1 ISO 20022 Standards

2.1.1 Variety of usage guidelines

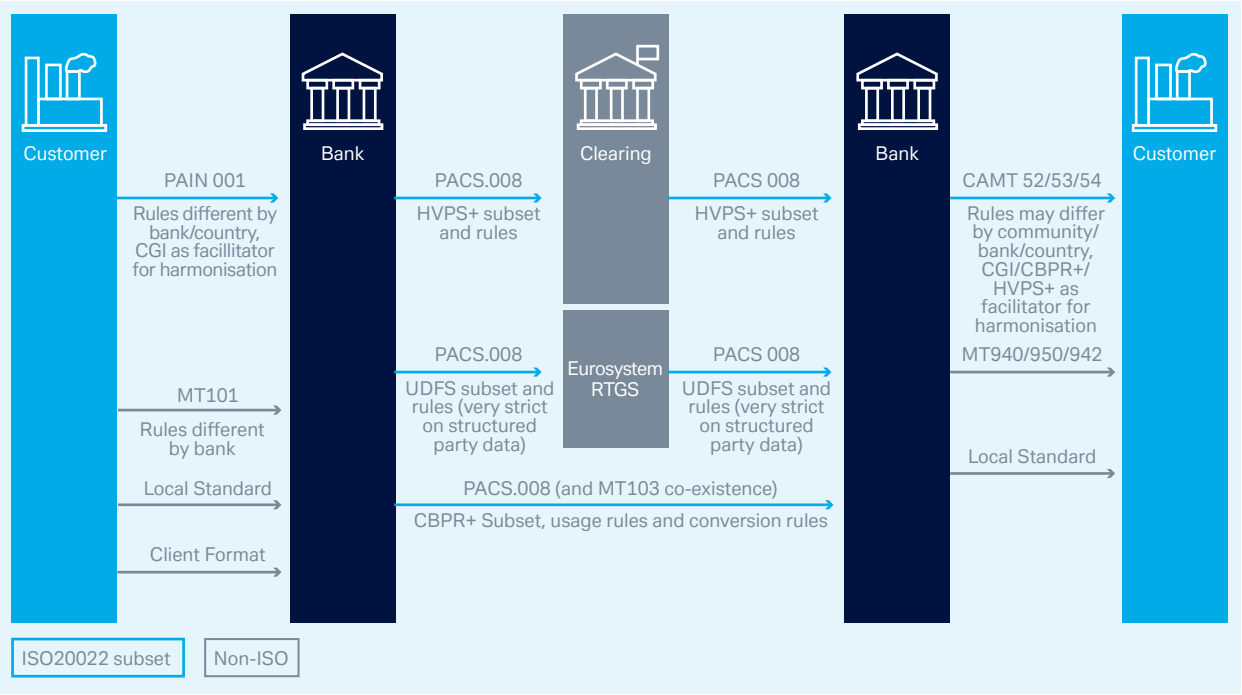
During the past two years of 2017–2019 a variety of ISO 20022 usage guidelines have been developed, including High Value Payments Plus, or HVPS+, (in the one-to-many space), CBPR+ (in the many-to-many space) and UDFS (in the local euro market). Each set of guidelines contains similar but unique complexities that market participants will need to stay abreast of.

The HVPS+ usage guidelines were built for the six core messages: pacs.008, pacs.009, pacs.004, pacs.002, camt.029 and camt.056. At the time of their creation, it was decided that the guidelines were not going to be validated on the SWIFT network. This allowed each MI to comply with the HVPS+, but also apply their own restrictions or "flavour".

A further set of guidelines, known as the CBPR+ usage guidelines (for use in correspondent banking), are in development – with the guidelines for pacs.008, pacs.009, pacs.002 and pacs.004 already available, and eight more set to be released by November 2019 (see Section 1.1: The global view: SWIFT). In February 2019, it was agreed that these would be based upon the HVPS+ guidelines – acknowledging the fact that there might be some minor differences based on specific local requirements. And unlike the HVPS+ guidelines, CBPR+ includes a SWIFT network validation. Moreover, only one version of these guidelines will be implemented in the live environment across the SWIFT network.

The slight differences between the two usage guidelines have a number of potential implications for all market participants. For example, a payment sent to an MI will use pacs.008 based on the HVPS+ usage guidelines (or UDFS for the Eurosystem), yet once it is passed on to a correspondent bank, it will use the CBPR+ usage guidelines (see Figure 2 overleaf). Banks will therefore need to ensure that they understand both guidelines, and "speak" all the "dialects" of ISO 20022.

Figure 2: Complexity of message formats and usage rules



Source: Deutsche Bank

2.1.2 SWIFT gpi

As per SWIFT's gpi roadmap, all products will be available in ISO 20022 messages. In November 2018, SWIFT launched a "gpi – ISO 20022 adoption initiative" to prepare for the general milestone of November 2021 (see Figure 11 on page 19), which included the establishment of a "gpi experts group". CBPR+ works together with the "gpi expert group" to enable gpi services on ISO 20022. This upgrade is a critical element to maintain the newly achieved service standard for the customer and continue to build a more frictionless cross-border payments model.

While gpi will be fully based on the CBPR+ usage guidelines, additional aspects, such as the communication with the gpi Tracker, if MT199 is used, must be considered in projects of this nature. Banks not yet live on gpi are strongly encouraged to use the ISO 20022 project to simultaneously implement gpi for the benefit of their own customer.

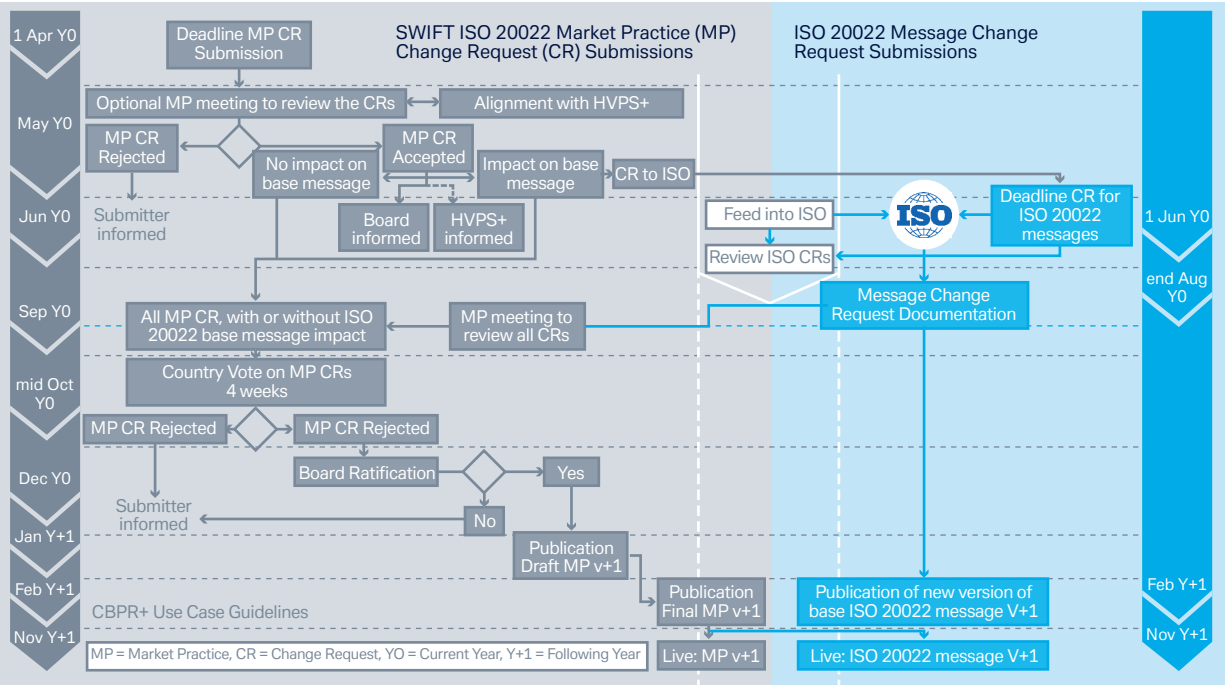
2.1.3 Annual ISO 20022 maintenance cycle

In previous years, there has been no harmonised maintenance and release cycle for ISO 20022 in payments. As such, different ISO 20022 message versions are still in use simultaneously today. Following the move to ISO 20022, SWIFT will carry out a structured annual maintenance cycle, in alignment with major MIs and RTGS systems. As of November 2021, there will be one common practice of ISO 20022 pacs and camt messages for FI to FI payments and reporting available on the SWIFT network at any one time. For example, at the end of 2021, the SWIFT community will implement and subsequently work with the latest version of ISO 20022. This will be applicable to HVPS+ and CBPR+ only, not pain or camt messages used between banks and their clients or pacs messages used in other schemes.

Operating similarly to the current SWIFT FIN maintenance process, banks/communities will have the opportunity to raise change requests to meet regulatory requirements or improve system efficiencies. The importance of this change request is then decided by the SWIFT global community, which approves or rejects the change via the country voting (see Figure 3). Participants will also be able to provide feedback to the release cycle, ensuring key issues are identified and addressed by the global community.

It is expected that one of the first maintenance cycles following the move to ISO 20022 will see the optional unstructured address lines removed completely, as MIs already confirmed that they will no longer be supported once the coexistence phase with FIN ends in 2025.

Figure 3: SWIFT ISO 20022 Market Practice (MP) Change Request (CR) submissions



Source: SWIFT

2.1.4 Adapting the framework for new actors

In order to account for evolving payment practices among businesses around the world, the upcoming version of ISO 20022 incorporates new terminology and data fields. First of all, it is important to understand the terminology delineating different types of actors in a payment chain. ISO 20022 wording distinguishes between “agents” – banks moving money along the chain – and “parties”, bank clients making, initiating and receiving payments (see box-out overleaf).

Definition of payment actors under ISO 20022	
Actor:	Any participant in the payment chain
Agent:	A participant in the payment chain that executes the movement of funds between – either the bank of the payer or payee or an intermediary correspondent bank
Party:	A bank client, making initiating or receiving a payment within the chain
Creditor:	The party whose account is credited with a payment
Debtor:	The party whose account is debited with the payment
Ultimate creditor:	The party which is the ultimate beneficiary of the payment. For example, the payment is credited to an account of a financing company, but the ultimate beneficiary is the customer of the financing company.
Ultimate debtor:	The party that originally ordered goods or services and to whom the seller has sent the invoice. Ultimate debtor is used when the receiver of the invoice is different from the payer
Initiating party:	The party on the initiative of which the payment data is established. This might be the payer itself, an agent, or the company service centre

Accordingly, the incoming version of ISO 20022 introduces three new parties in the payments chain: the ultimate creditor, the ultimate debtor and the initiating party (see Figure 4). These are not currently accommodated by FIN messages, a situation that often proves a pain point for banks and corporates.

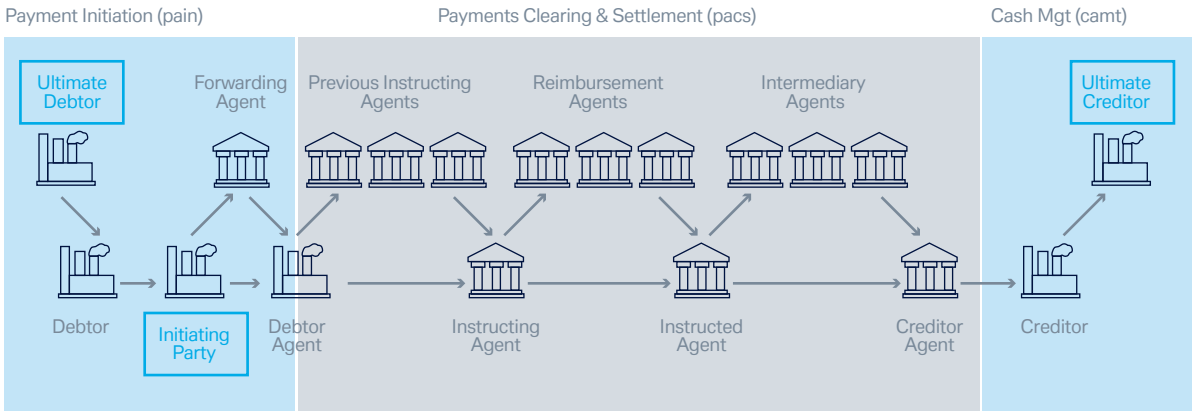
In a payment factory scenario, for example, while a payment may be credited to a company's account (creditor), the ultimate beneficiary of the payment may be the customer or the subsidiary of the company (ultimate creditor) instead. Without a dedicated payment field, crucial information pertaining to the ultimate creditor is sent outside of the payment message entirely. This makes it difficult to ensure that all relevant information is passed down the payment chain – often delaying payments processing and complicating reconciliation.

The ISO 20022 standard introduces specific fields for the information pertaining to these payment actors – making the payment message clearer and more structured. This circumvents the issues under FIN equivalent payments and helps improve Anti-Financial Crime controls and reconciliation processes.

The move to ISO 20022 messages does bring some challenges, too. A direct equivalent of F72 (Sender to Receiver Information) is not included in ISO 20022 messages, though it does include additional fields where this information could be mapped – such as "Instruction for Next Agent" or "Instruction for Creditor Agent" (see Figure 5).

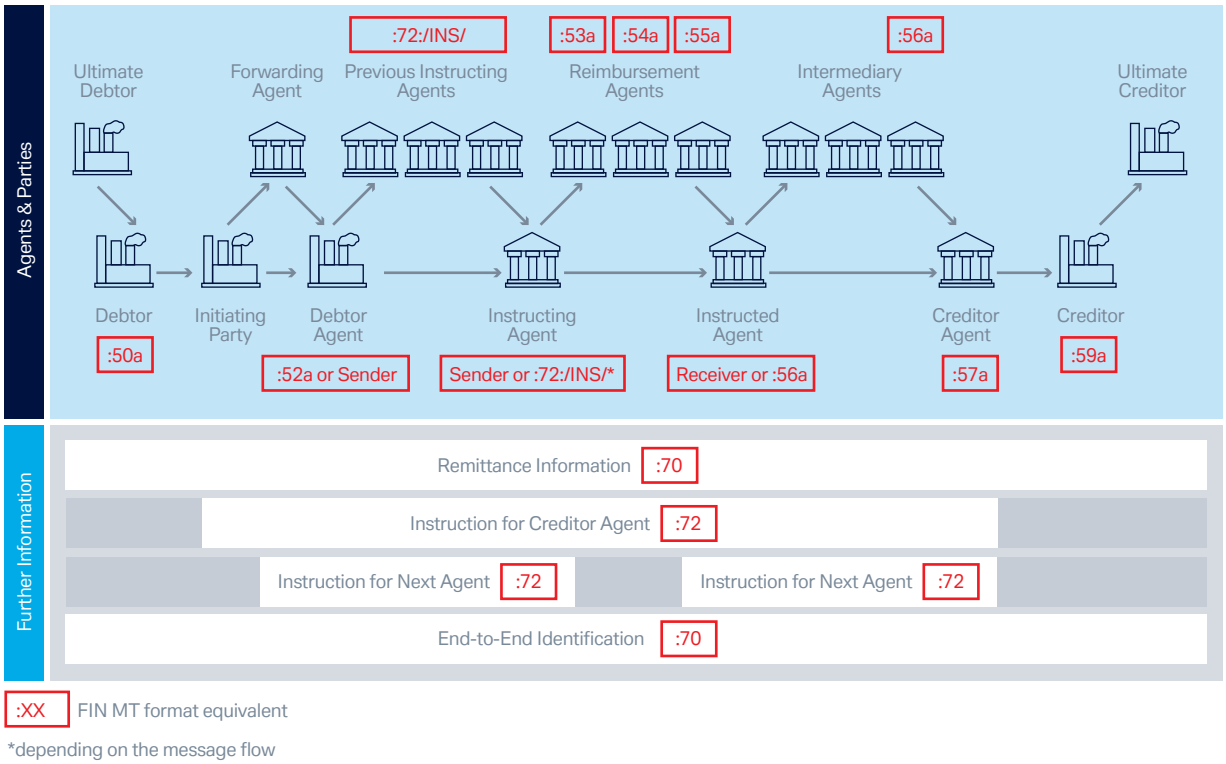
Figure 4: Future end-to-end payment chain

Actors (agents & parties) and message types in the future end-to-end payment flow



Source: Deutsche Bank

Figure 5: Payment flow- pacs.008 vs MT103



*depending on the message flow

Source: Deutsche Bank

2.2 SWIFTNet services

2.2.1 Translation testing

As the ISO 20022 adoption approaches, market participants must be able to validate their interpretation of the CBPR+ usage guidelines. SWIFT has begun developing a translation portal to translate SWIFT FIN messages to ISO 20022 messages and vice versa.

In June 2019, SWIFT released the first beta version of its translation portal, with mapping viewer functionality. At the time of writing, a second beta version is set to be released in December 2019, which will include a "Google translate-like" feature, provisionally known as the translation sandbox. Once an MT103 message is inputted into the feature a user can click "convert", which translates the message into the pacs.008 format.

The first version of this translation portal to be generally available is scheduled for release in December 2019. While the service currently applies only to the translation of MT103 messages to pacs.008 and conversely of pacs.008 messages to MT103, future updates are expected to incorporate a wider variety of formats – though these are yet to be defined.

Community testing

Alongside these tools, SWIFT will also facilitate community testing. SWIFT will provide pilot messaging and translation services as of September 2020, ahead of a go live in November 2021. This will allow banks to send and receive ISO 20022 messages with their counterparties to confirm readiness.

2.2.2 SWIFT central translation service

Following the move to ISO 20022, market participants that take receipt of payments will have to consider – in cases where their infrastructure is not ready for consumption of ISO 20022 front-to-back – how they translate incoming payment messages from the new format to the old FIN format for further processing. In anticipation, SWIFT has developed a translation service for the coexistence period for incoming messages, with three primary delivery models: central translation in flight, central translation via API, and local translation.

Central translation in flight

Under the in-flight method, an MX/ISO 20022 message is caught "in flight" between the ordering bank to the receiving bank and a translated MT/FIN formatted copy will be attached to the message. Both the MX and MT versions of the message are delivered to the receiving bank as a multi-format envelope via the store-and-forward messaging service.

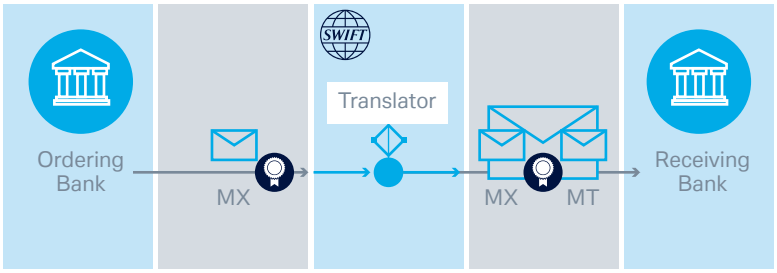
The more structured and granular data provided by the MX message means that mapping from MX to MT will naturally lead to a potential loss of data, known as truncation. While the translated message will allow the receiver to carry out the processing/accounting of the payment, it may still need to review the original MX. Reasons for this include, but are not limited to:

- Anti-Financial Crime due diligence responsibilities;
- Additional information that may be needed for reconciliation; and
- A client requesting to see the content of the MX (to the extent it is relevant to them).

This method focuses on CBPR+ translation only and is not applicable for ISO 20022 use with MIs (see Figure 6).

Figure 6: Central translation in flight

1 In flight with multi-format MX envelope



MX to MT only

Source: SWIFT

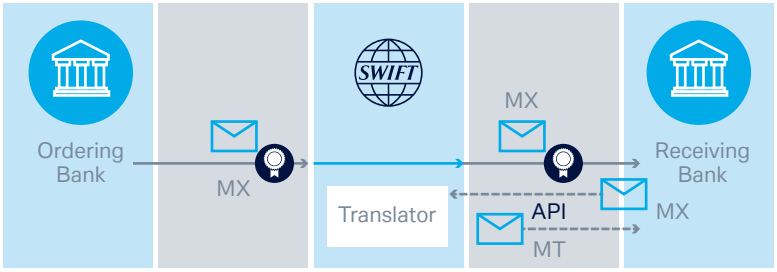
Central translation via API

The second central translation method uses an API to facilitate the payment message translation. In this case, an MX message is sent from the ordering bank to the receiving bank with no intermediary translation step. Once received, an API call from the receiving bank's back office is then used to initiate a request to SWIFT to translate the message centrally and provide the corresponding SWIFT MT in addition. This method has a two-way translation functionality – capable of translating MX messages to MT, and MT messages to MX. At first, the solution will be only focused on CBPR+ translations, but this is set to be extended to other usage guidelines (see Figure 7).

This particular translation method is focused on participants which might only play a specific role in the payment chain – meaning they may need to work in both MT and MX messages concurrently. After the move to ISO 20022, it will also be relevant for banks that continue to operate some internal applications on legacy formats – where only a subset of payments require translation.

Figure 7: Central translation via API

2 Central translation called through API from back-office



MX to MT and MT to MX

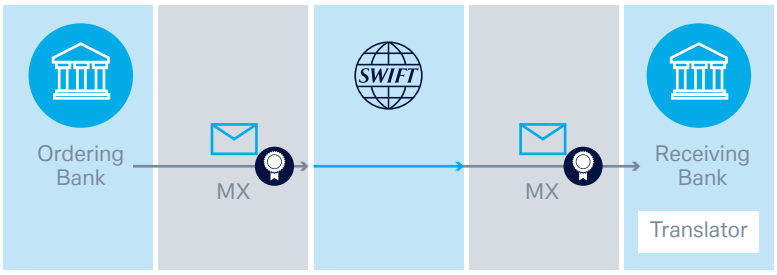
Source: SWIFT

Local translation

The third delivery method allows the bank to implement a translation capability either at the SWIFT interface or in the back office of the bank, which allows conversion of MT messages to ISO 20022 – and vice versa prior to the release to the network (see Figure 8). Unlike the central translation options, local translation offers full flexibility of use, customisation and enrichment, as well as the lowest level of latency. It is conceptually also applicable to multiple guidelines – including CBPR+, T2, CHAPS and Fed, as they develop.

Figure 8: Local translation

3 Local translation deployed on integration layer



Any to any / full customisation and enrichment possible

Source: SWIFT

2.2.3 SWIFT Alliance Interfaces

SWIFT's Alliance Interfaces – a set of messaging and communications that centralise SWIFT messaging functionality and provides useful add-ons – will soon be updated. In July 2020, SWIFT is scheduled to release its Alliance Interfaces that will be able to handle multiple formats, including ISO 20022 InterAct multi-format envelope.

2.2.4 RMA evolution

The Relationship Management Application (RMA) is a SWIFT-mandated filter that was created to enable financial institutions to define which counterparties can send them FIN messages (with RMA Plus being more granular on message type level). Both RMA and RMA Plus act as a barrier to any unwanted traffic – reducing the operational risks associated with handling unwanted messages and providing a first line of defence against fraud.

Following the move to ISO 20022, all existing RMAs will need to be replicated for the InterAct service. To facilitate this, SWIFT will make RMA available for ISO 20022 messages over the many-to-many InterAct service, with RMA Plus set to become the new default. Market participants will be automatically enrolled in these new services; however it is strongly recommended to perform a clean-up of the current RMA portfolio prior to the migration.

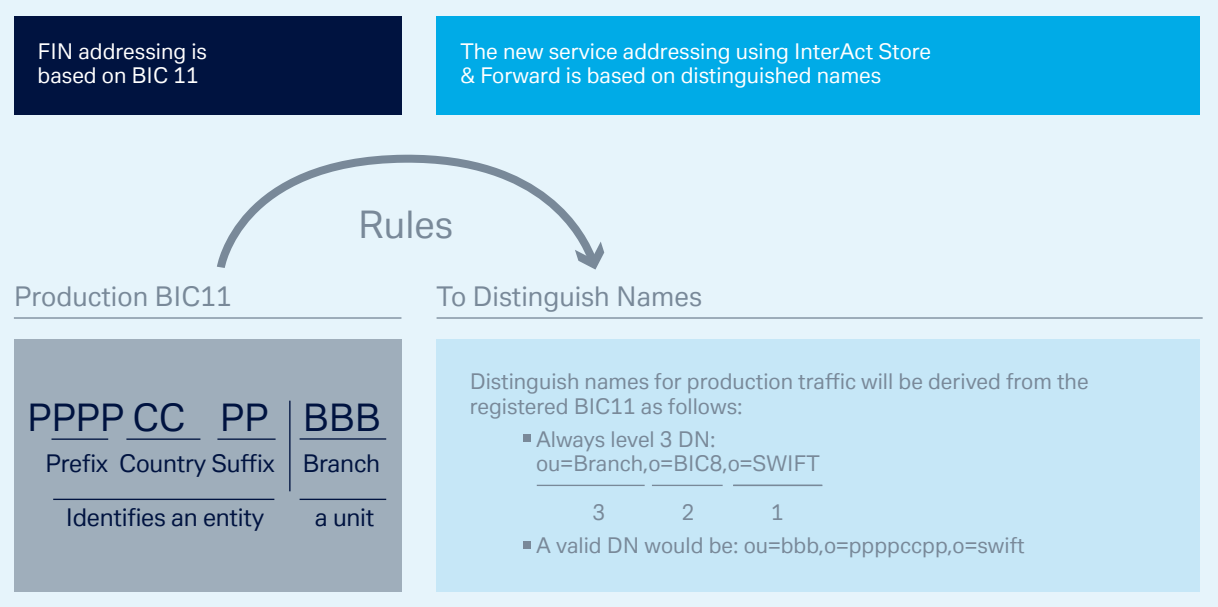
A centralised platform

Currently, RMAs are under the control of the banks. If a receiver revokes an RMA, they may continue to receive messages until the sender updates their own RMA. As such, to avoid any impact to compliance decisions, RMA relies on synchronisation being maintained and respected by both parties. Following the migration, RMAs will also be recorded and enforced by SWIFT through a centralised platform. This will mean that messages will be rejected by the network as soon as an RMA has been revoked, which will help to avoid any impact to daily operations.

2.2.5 BIC vs. distinguished names

The addressing in SWIFT FIN is based on BIC11, while the addressing in InterAct Store & Forward is based on distinguished names. SWIFT will facilitate the co-existence and interoperability of the network addresses used by FIN and InterAct. They have defined a rule to create the distinguished names out of the registered BIC11 (see Figure 9). This rule will be enforced by the network. A file containing the converted RMAs will be made available to the bank for upload in their interfaces. Each customer will be given an adjustment period, allowing them to correct their RMAs if required.

Figure 9: Suggested rules to build distinguished names out of registered BIC11



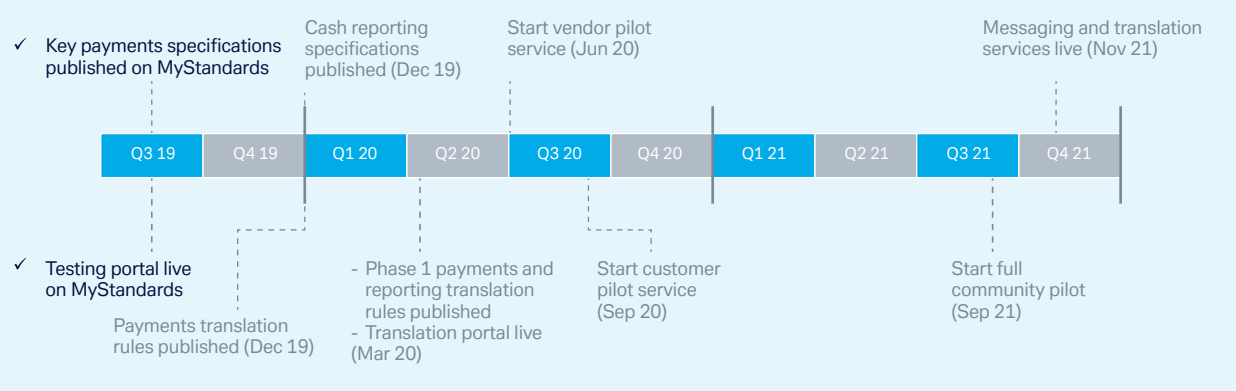
Source: SWIFT

2.3 ISO 20022 milestones

Key objectives for all financial institutions adopting ISO 20022 by November 2021 include the following (see Figure 10 overleaf):

- All financial institutions are able to receive and process ISO 20022 CBPR+ payments
- Optionally, all financial institutions with significant intermediary business, if required for compliance, are able to send ISO 20022 CBPR+ payments, based on received ISO 20022 payments.

Figure 10: ISO 20022 programme and CBPR+ milestones



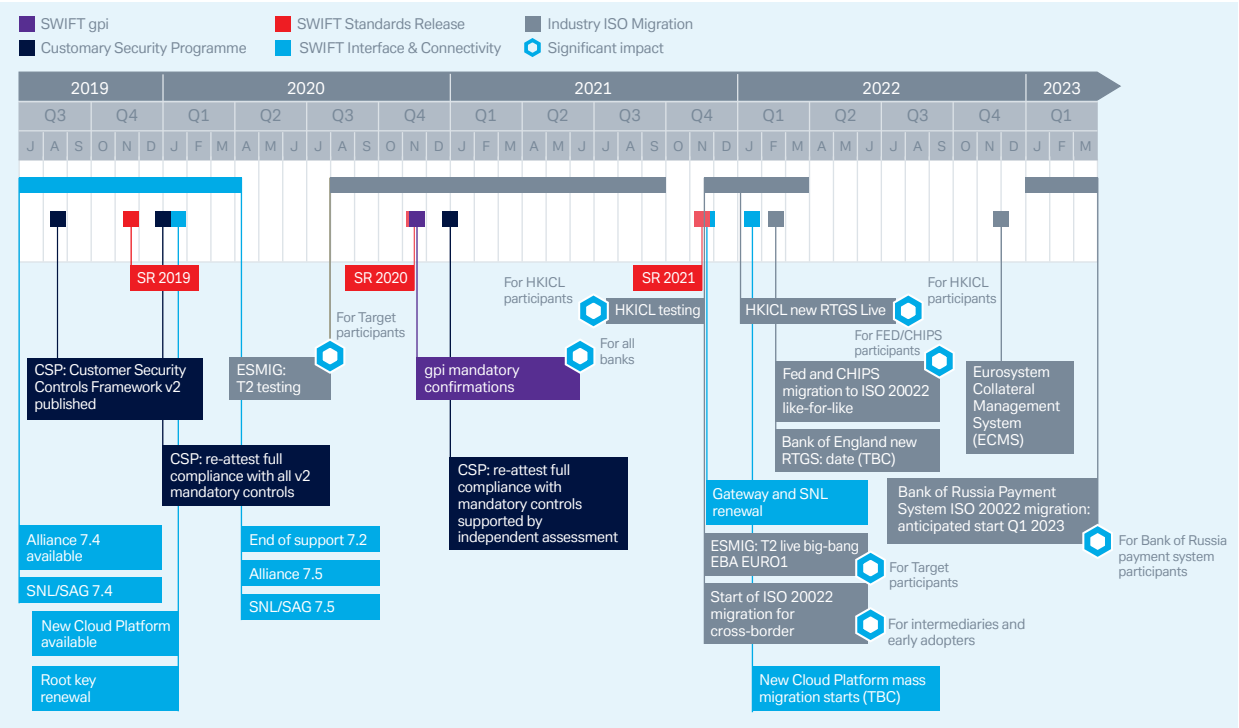
Source: SWIFT

2.4 Other industry initiatives

The move to ISO 20022 is not happening in isolation. Initiatives from SWIFT, industry organisations and several global payments markets continue to run in parallel with the upcoming transition to ISO 20022 (see Figure 11). In their entirety, these developments bring additional capabilities to the market, but participants will also need to be alert to the greater complexity they entail. To manage the implementation of these initiatives, all market participants need to be aware of the scope of projects ahead and understand when and how they will need to take action. SWIFT advises that market participants consider a series of questions:

- Is your financial institution aware of all these initiatives?
- How do the initiatives impact your institution?
- Do you have the right teams from your institution involved – in both the industry dialogue/ activities and in the internal work necessary to integrate these initiatives into your technology and operational platforms?
- Will your institution be ready when the industry is ready?
- What are the implications if your institution is not ready?

Figure 11: Community milestones



Source: SWIFT

3

Implications, options and recommendations

The implementation of ISO 20022 will have a number of implications for the majority of market participants. The options and recommendations for market participants migrating to ISO 20022 will vary depending on whether they are bank or corporate, global or regional, and depending on their level of involvement with payments MIs. But, regardless of whether the migration constitutes a huge leap or a number of small steps, banks and corporates should plan their journey and begin to move in the right direction.

3.1 Implications for market participants

The extent of the implications for market participants will be dependent on how involved each is in the overall payment chain (see Figure 12).

The impact will be greatest for global banks – affecting all aspects of the payment chain from their handling of structured payment-party information at the initiation stage to the provision of camt statements once the payment has been settled. As a result, global banks will need to establish a global project and assess the impact the migration will have on their commercial model and local entities.

Like their global counterparts, regional banks will be mandated to implement a number of changes across their payment chain – though with slightly enhanced optionality. As such, the impact of the migration will also be high for regional banks – particularly those in Europe which have a hard deadline in November 2021 for the RTGS MI migration. Meanwhile, banks operating outside Europe will have more time and flexibility to complete their migration.

The introduction of ISO 20022 will also have a significant impact on large corporates and multinationals – particularly those with in-house bank or payment factory set-ups. These organisations will likely want to set up a project to prepare for the effects of the banking industry migration (such as the requirements for additional data for the execution of cross border payments)

For small and medium-sized enterprises (SMEs), the impact of ISO 20022 will be limited, however, based on their global engagement, an assessment is recommended. The impact on retail clients will be minimal, with only those consumers using cross-border and RTGS payments needing to be aware of the new data requirements.

Figure 12: Heatmap of impact by market participant

Payment Market Participation	Overall Impact/ Efffort	Payments						Account Information				Need for Action
		Handling of structural payment party information	Handling of ultimate party information	Handling of structured remittance information	Full support of ISO Messages in clearing	Full support of ISO data in Anti Financial Crime controls	Full support of ISO data in processing/product design	Handling of additional data in account statements & EB	Provision/usage of structured remittance in statements & EB	Provision/usage of ultimate party info in statements & EB	Provision of camt statements/ utilisation in reconcilliation	
Global Banks	High	M	M	M	M	M	M	M	M	M	M	▪ Global project required ▪ Assess impact on commercial level
Regional Banks (EUR)	High	M	M	M	M	M	O	M	M	M	M	▪ Project required
Regional Banks (non-EUR)	Medium-High	M	M	M	M	M	O	M	M	M	M	▪ Project required
Large Corporates/ Multinationals	Medium-High	M	M	M				M	M	M	O	▪ Project recommended
Small/Medium Enterprises	Low	M	O	O				O	O	O		▪ Assessment recommended
Retail (when using HVP or x-border payments	Low to Zero	M						O				▪ Awareness needed (if using X-border or RTGS payments)

Key

M = Mandatory implementation

O = Implementation with some optionality

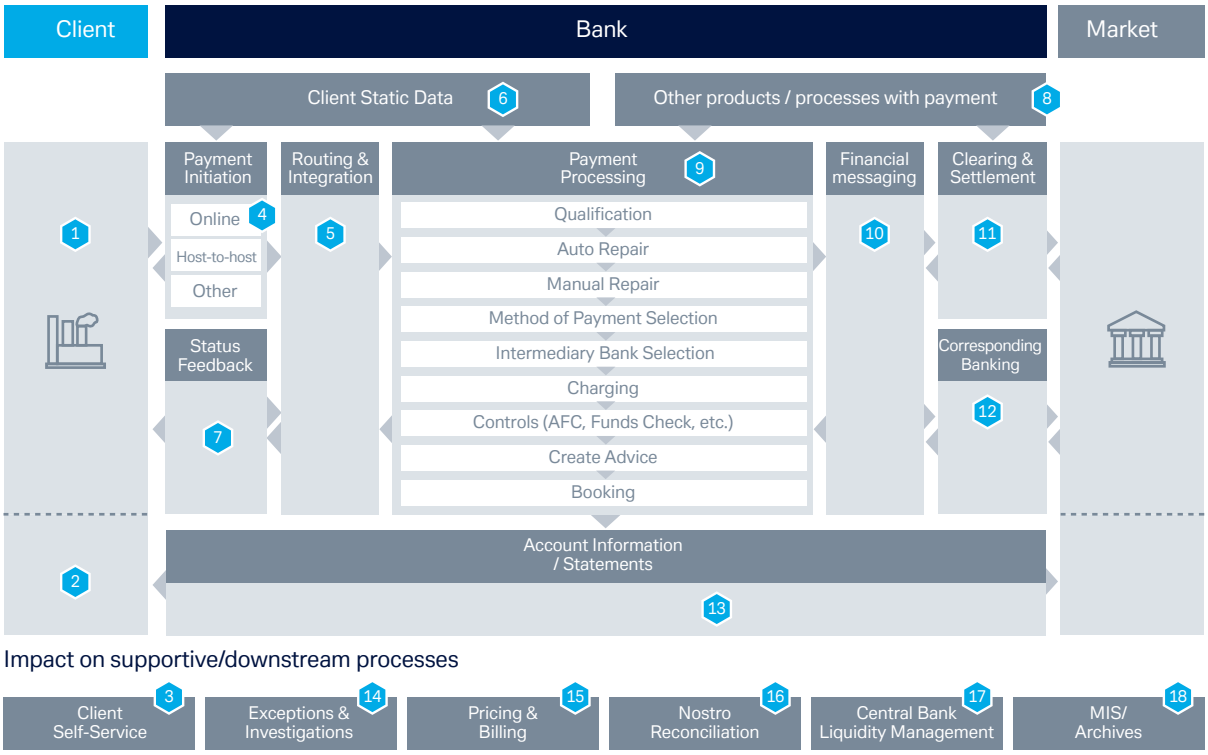
Source: Deutsche Bank

3.1.1 Implications for banks

For global banks, the entire lifecycle of a payment instruction will be impacted by the introduction of ISO 20022 – from payment initiation through to message archiving (see Figure 13 overleaf).

Regional banks will be similarly impacted by these changes to the payment lifecycle, although they may, based on the region they operate in and the cash management services they provide, have more time and optionality. Some banks are looking to take advantage of this to find a tactical solution that requires relatively small adjustments.

Figure 13: Impact on lifecycle of a payment instruction



1 Client impact in payment initiation

- Prepare for providing structured name/ address information of beneficiaries
- Consider upgrading to the newest ISO 20022 message version supported by respective bank
- Ensure continuity with any non-ISO 20022 mode of payment initiation for cross-border transfer, such as local file format - to be able to provide minimum mandatory information

2 Client impact in account information

- Anticipate changes to the payment details shown in current account statements
- Prepare ERP systems to support richer ISO 20022 payment information in the account statement and (auto-) reconciliation

3 Impact on client self service

- Enable working with ISO 20022 message elements across all retrieval and investigation screens

4 Impact on payment initiation channels

- Demand/enable capturing of structured party data for cross-border payments
- Enhance online banking/integration channels to support ultimate parties
- Consider support for structured remittance information capture
- Support UTF-8 standard
- Expect changes in the support of ISO 20022 pain instructions as per CGI standard
- Expect certain local instruction formats to be phased out as they do not support minimum standards of cross-border payments
- Enhance validation rules to consider HVPS+/CBPR+ minimum data requirements

5 Impact on routing & integration

- Ensure rich/complete data flow to downstream processing applications
- Support (as a minimum) the ISO 20022 business elements for internal messaging/APIs
- Review payment-relay scenarios (i.e. MT101 forwarding) for impact

6 Client static data

- Ensure client reference data is available to payment processing in a structured format, for population of Debtor information

7 Impact on payment status information

- Prepare online screens to present payment status feedback for payments processed in ISO 20022 messages
- Enhance legacy/bespoke feedback channels/formats to present meaningful status information for ISO 20022 payments
- Consider broad roll-out of ISO 20022 feedback message types

8 Impact on other products with payment needs

- Evaluate internal payment flows which qualify for MT->MX translation
- Make structured counterparty data (creditor name/address) available

9 Impact on payment processing

Qualification
- Enhance qualification rules to be able to handle new data structure of the respective ISO 20022 message (e.g. Field 72 split across <InstructionForCreditorAgent>, <InstructionForNextAgent>)
- Consider full ISO 20022 message content, incl. new agent fields

Auto Repair (if applicable)
- Adjust auto-repair rules to work with ISO 20022 message elements, in addition to equivalent FIN elements
- Establish new auto-repair rules for new message elements

Manual Repair
- Select/implement ISO 20022 elements to be in scope of manual repair
- Method of Payment Selection
- Develop ability to consider new ISO 20022 message elements to determine preferred/required method of payment
- Intermediary Bank Selection (if applicable)
- Adjust intermediary bank selection logic for additional agent fields

Charging Process
- Manage complexity of co-existence of FIN & ISO 20022 charge bearer codes
- Adopt strict rules on charges information capture in pacs messages

Controls
- Enhance embargo filtering to screen all enhanced payment details and additional parties and agents
- Ensure filtering systems can handle ISO 20022 and SWIFT FIN MT feeds in parallel, during the co-existence phase
- Enhance AML Transaction Monitoring utilising granular ISO 20022 data elements in data-feeds and in risk typologies

Create Advice
- Generate pacs advice messages in line with CBPR+ usage guidelines, i.e. provide structured party information (Debtor/Creditor/Ultimate Parties)

Booking
- Identify relevant/minimum payment information which needs to be carried on for booking and subsequent processing

10 Impact on financial messaging

- Consider implementation of translator functionality to accelerate move to ISO 20022 messages (pro-active MT->MX conversion) for outbound traffic still originating in MT
- Consider translator functionality to integrate remaining incoming MT messages into new ISO 20022 enabled processing
- Adopt DN (Distinguished Name) concept for addressing/routing (where applicable)
- Apply to changes in the SWIFT user test methodologies
- Prepare Financial Messaging technology to support fall-back/de-risking scenarios post the ISO 20022 go-live

11 Impact on RTGS/ clearing connectivity

- Implement bespoke network technology, e.g. ESMIG, for infrastructures migrating to ISO 20022
- Support ISO 20022 pacs messaging strictly in line with the respective usage guidelines (HVPS+/UDFS, etc.)
- Consider complexity of non-co-existence
- Implement changes in central bank account structures
- For TARGET2 direct participants: Change in the message exchange mode (Y-copy with V-Shape topology); going forward the message exchange is between a participant bank and the central bank system

12 Impact on correspondent banking messaging

- Support ISO 20022 pacs messaging strictly in line with CBPR+ usage guidelines
- Implement new dedicated SWIFT InterAct service
- Keep MT/FIN service up and running for the co-existence phase
- Consider translator technology to migrate MT flows into ISO 20022 flows, strictly following CBPR+ translation rules
- Manage co-existence of FIN and InterAct RMA databases

13 Impact on account information/ statements

- Support transition/parallel phase of provisioning MT & ISO20022 account statements to clients
- For (corporate) clients opting to stay on MT account statements, establish clear rules on what elements from an ISO 20022 payment should be presented in the statement (same for legacy formats/ paper statements)
- Develop solution to present extended payment details (where applicable)
- Prepare for mandatory use of ISO 20022 camt statements to be provided to correspondent banking clients

14 Impact on exceptions and investigations

- Display ISO 20022 message elements across all investigation steps
- Support new ISO 20022 investigation messages
- Assess process changes resulting from a more granular message portfolio for investigations and exceptions, when compared to FIN messaging
- Identify alternatives to current practice of free format message usage (MTx99)

15 Impact on pricing & billing

- Re-work sender identification process for payments received by clearing in Vshape topology
- Review the 'OUR'/"DEBT" claim processes for impact

16 Impact on nostro reconciliation

- Enable reconciliation engines to work with ISO 20022 camt account statements received from Nostro Agents, incl. additional data
- Work with Nostro banks on implementation approach for camt statements

17 Central Bank liquidity management impact

- (In some markets, where applicable, RTGS systems are subject to change)
- Adopt new central bank account structures, adhering to national central bank's minimum reserve requirements
- Expect changes to funding processes
- Consider removing complexity by centralising liquidity management
- Prepare to support enhanced operating hours

18 Impact on MIS/ archives

- Ensure archives can capture additional data structure and data volume
- Review retrieval processes for need to adopt ISO 20022 data elements as indexing/search criteria
- Payments executed as ISO 20022 have to seamlessly count into existing MIS reports

Source: Deutsche Bank

3.1.2 Implications for corporates

Although the migration to ISO 20022 is not mandated end-to-end and corporates will have the option to continue using various formats for the initiation of payments, they should not underestimate the implications of the move to ISO 20022 in the interbank space.

Changing formats

Irrespective of the payment messaging format, the content of a corporate's account information could be affected. Following the introduction of ISO 20022, incoming payments are likely to carry more or different information – including structured remittance data, details of ultimate parties and new references, such as the end-to-end references or the unique end-to-end transaction reference (UETR) – that will need to find its place in the legacy account statement. This may have an impact on the auto-reconciliation rate, and potentially introduce exception handling.

Structured data formats

The mandatory use of structured party information is on the horizon – something corporates cannot ignore. From November 2021 onwards, cross-border payments, initiated by the bank in ISO 20022, require any party including (but not limited to) the debtor, creditor and bank agents to be provided in structured data formats with additional information. While the corporate customer's bank has the responsibility to provide the required and accurate data for the debtor, structured and complete data for the creditor and ultimate parties can only and must be provided by the originating party (the debtor). This will require corporates to enhance their enterprise resource planning (ERP) or treasury management system (TMS), improve their own static data, and more importantly, obtain and complete their counterparty data with the full address.

End-to-end flow issues

Although SWIFT will continue the FIN support for SCORE, this does not mean that all change will be avoided. In fact, while the use of old FIN MT 101/940/942 messages will remain possible in the customer-to-bank communication, the interbank space will have an effect on corporates in the end-to-end flows.

3.2 Options and recommendations for banks

Banks and other payment service providers participating in MIs or involved in cross-border payments have to get ready to support ISO 20022 payment and account information messages throughout the end-to-end value chain. To meet this challenge, most banks will have to be ready to support ISO 20022 for CBPR+ and the HVPS+ applicable to the respective MI – and at a minimum be able to create and forward structured party data by November 2021. This requires banks to assess and decide on their clearing connectivity options and potentially adjust the business processes used in payments.

Success will require planning and a specific ISO 20022 project that has the buy-in from senior management in order to secure the human and funding resources necessary for a multi-year initiative. Regardless of the bank's size, any project will have to understand the global implications of local changes.

At the core of this effort, banks will also have to ensure that the knowledge and awareness of the transition is sufficient – allowing them to prepare for any complications once the new standard goes live. On the client side, banks will need to be able to guide their customers through the changes, ensuring their ISO 20022 front-to-back readiness is a value-add experience.

3.2.1 Global banks

Given their participation in both local clearing systems and correspondent banking networks, global banks are well advised to migrate their systems to ISO 20022 by November 2021 – the deadline set by the Eurosystem and SWIFT.

Recommendations

In preparation, it is advised that global banks set up a single project to cater for all migration programmes.

Industry engagement, education and awareness on a global scale will be key to the success of this project. As such, the initial step – if not already completed – will be to ensure that the bank's governance is robust and that internal knowledge of the required migration steps – and their impact on processes – is sufficient. If this knowledge is found to be lacking, a series of training sessions should be organised to inform staff (front-to-back) of any upcoming changes, project plans and timelines. As part of this process, global banks should also look to perform a functional impact assessment (see Section 3.2: Implications for banks).

Banks operating on a global basis should also look to engage with their vendors, partners and key counterparties to ensure they are keeping abreast of the incoming changes. In a similar vein, a line of communication between the bank and their corporate clients should be opened – making sure the client understands what will be needed to execute payments post-migration. Global banks will also need to ensure that they are able to offer ISO 20022 statements – such as end-of-day account statements with the ISO 20022 camt.053 message, intraday account statements with the camt.052 message, and debit and credit advice with the camt.054 message – to their corporate and bank customers.

As the 2021 deadline approaches, global banks will need to make a number of changes, including:

- Configuring and joining the new messaging service
- Reassessing back office operational processes and amending accordingly
- Performing tests with the main counterparties, clients, and stakeholders
- Implementing new authorisation processes (see section 2.2.4: RMA evolution)
- Performing community testing.

3.2.2 Regional bank (Eurozone)

Eurozone regional banks participating in the EUR clearing system and correspondent banking will also need to migrate their systems to ISO 20022 by the Eurosystem deadline of November 2021. To meet this deadline, it would be advisable for them to set up a single project that caters for both the Eurosystem and SWIFT migrations. Running two separate migration projects – one to meet the Eurosystem deadline, and another to meet the final SWIFT deadline of November 2025 – is of course possible, although not optimal.

Recommendations

Regardless of the route taken, Eurozone regional banks will need to ensure they have the right governance structure and internal awareness to allow a successful migration project. Just as for global banks, any knowledge gaps will need to be addressed by a series of training sessions.

3.3.3 Regional banks (non-Eurozone)

Non-Eurozone regional banks will need to be able to receive ISO 20022 messages by November 2021 and send ISO 20022 by November 2025 at the latest. They have two alternative approaches

available. The first, known as the “strategic approach”, would be to implement a migration project in preparation for the initial introduction of ISO 20022 by SWIFT in November 2021. The second, known as the “tactical approach”, would be to migrate at a chosen date between November 2021 and November 2025 – making use of SWIFTs central conversion service during the interim period.

Recommendations

Non-Eurozone regional banks will have to follow the same steps as their Eurozone counterparts, although they have a little more time to decide between a strategic and tactical solution. If the latter is chosen, the regional bank will have to assess how it can implement the message conversion services provided by SWIFT (see section 2.2.1: Translation testing) or an alternative provider.

In addition, regional banks with intermediary services will have to prepare for the move to ISO 20022 in the many-to-many space by 2021. If they do not, and are unable to pass on the rich data provided by an ISO 20022 payment message they receive, they risk not being able to provide all necessary data to their bank or corporate customer (known as data truncation).

3.3 Options and recommendations for corporates

While much of the onus for migration falls on their banking partners, corporates will need to coordinate with them and their internal stakeholders to ensure a smooth transition. As part of this project, corporates may need to undertake investment in their solutions to ensure they can provide required party and remittance information to their banks by November 2021. This will include being able to provide structured party information in a payment instruction.

Ahead of the migration, corporates should engage in industry discussions and start the dialogue with banking partners and ERP/TMS providers to understand how their payment and account information products may be affected. This may require in-house co-ordination, especially if operating in multiple markets/countries.

4

What's next?

While the move to ISO 20022 may at first appear to be technical and abstract, it will have far-reaching implications for banks' payment systems and processes. Additionally, during the course of this migration, a number of decisions will have to be made pertaining to future business models.

While the benefits of ISO 20022 include enhanced end-to-end payments data quality and operational efficiency for banks with compliance and risk management, schedules are tight.

A wait-and-see approach runs the risk of bank participants being completely cut off from international payment systems and access to central banks. Now is the time to prepare schedules, securing resources, allocating budgets and informing senior management.

Similarly, the approach of corporates needs to be one of full engagement with their banking partners and internal stakeholders.

As the deadlines near, updates to the ISO 20022 migration are ongoing and this series of guides will continue to highlight key points for consideration over the coming years. The next edition in this series will cover:

- The completed portfolio of usage guidelines (including SWIFT gpi);
- Translation and mapping rules per usage guidelines;
- Interoperability challenges; and
- MI's revised timelines and migration approaches.

We look forward to sharing the journey with you.

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