Deutsche Bank Global Transaction Banking



Ultimate guide to ISO 20022 migration

Foreword

This is the watershed moment for the industry. Over the next five years, the world's primary payment market infrastructures (PMIs) will undergo huge transformational change in response to demands for increased automation and cost efficiencies, enhanced market integration and real-time services

These PMIs lie at the heart of the financial ecosystem, providing infrastructure for High Value Payments Real Time Gross Settlement (RTGS) systems, Low Value Payments Automated Clearing Houses (ACHs) and Real-Time Retail Payment Systems.

As part of this transformational change, major PMIs such as the Federal Reserve and The Clearing House (US), Eurosystem and EBA Clearing (Eurozone) and the Bank of England's RTGS (UK) will all modernise their High Value Payment Systems (HVPS), almost simultaneously.

Underpinning each of those modernisation programs is the migration to ISO 20022, widely recognised as the standard for the future. Indeed, ISO 20022 has already been introduced for HVPS in Japan, Switzerland and China, and is established as the de facto standard in instant payments markets following implementations in Australia, US, Canada and Singapore. SWIFT will also introduce ISO 20022 for cross-border payments, with a view to phasing out existing payment messages.

The migration to ISO 20022 lays the foundation for vastly improved payment processing efficiency and interoperability among HVPS. Its benefits are numerous from a customer experience and compliance perspective, as well as providing the capabilities to deliver new services.

This journey therefore has far-reaching implications for all banks, corporates and other important financial stakeholders. It is probably the most impactful payments industry undertaking since the introduction of the Single Euro Payments Area (SEPA) more than a decade ago, and will require CEO commitment, allocation of appropriate budgets, resources and project teams given that a multitude of areas will be affected across institutions. Senior management teams could also use this as a basis for reassessing existing business models; at the very least, they should consider redesigning substandard business processes.

This is not simply "another IT project". Our series of guides on this topic, produced in collaboration with PPI, aim to outline exactly what we can expect between now and 2025, creating awareness of its impact and sharing best practices on approaching a project of such magnitude.

Christian Westerhaus,

Head of Cash Products, Cash Management, Global Transaction Banking, Deutsche Bank



"It is probably the most impactful payments industry undertaking since the introduction of SEPA"

Foreword

While ISO 20022 migration may at first appear to be technical and abstract, it will have far-reaching implications for banks' payment systems and processes

Of course, this is not the first initiative designed to further improve existing payment systems. We have seen numerous regional initiatives related to bulk payments: the introduction of SEPA or diverse instant payment schemes (whether in Australia or Asia), for instance. However, the migration to ISO 20022 for cross-border and inter-bank payments of major central banks as well as SWIFT, although driven by different regional infrastructures, can ultimately be considered global in scope.

Banks' payment systems will have to be adapted along with numerous processes. Additionally, during the course of this migration, a number of decisions will have to be made pertaining to future business models. Schedules will be tight with resource requirements similar to other major projects in recent years. A wait-andsee approach is simply not an option for banks, as they will be completely cut off from international payment systems and access to central banks.

Some of the central banks have already begun monitoring migration measures. Many other institutions are in the process of preparing schedules, securing resources, allocating budgets and informing senior management.

Yet awareness and understanding about the forthcoming change appears to be relatively weak. In order to best prepare for a timely and successful migration, we have therefore compiled this paper together with Deutsche Bank. In the first of a series of guides, we outline the general challenges faced. In the following editions, we will deep-dive into the individual aspects of the initiative, analysing the differing perspectives and opportunities of the migration to ISO 20022 for both banks and corporates alike.

We wish you a successful migration!

Dr. Hubertus von Poser, Head of Consulting Payments, PPI AG



Contents

1.	Man	agement summary	6
2.	The	significance of ISO 20022 migration	7
	2.1	What is ISO 20022 and why is it important?	7
	2.2	Why now?	9
	2.3	What are the opportunities?	9
	2.4	Reaping the benefits	10
3.	Wha	t does ISO 20022 mean for banks?	11
	3.1	Operational considerations	11
	3.2.	Infrastructure considerations	13
4.	The	migration of global market infrastructures	14
	4.1.	Eurozone	15
	4.2.	US dollar area	18
	4.3	Sterling area	19
	4.4	SWIFT	20
5.	Mov	e first, move fast	23
6.	Futu	re editions	25
Refe	26		

1 Management summary

International payments is a global network business in which at least three (although usually more) parties are involved. It goes without saying that harmonised standards and rules for the exchange of payment messages and data are therefore of paramount importance

Over the years, there have been a number of initiatives and organisations that have strived to achieve this standardisation – yet the decision by major central banks and SWIFT to migrate to ISO 20022 signifies the biggest breakthrough to date.

With a globally-recognised standard, banks and their clients can effect payments far more efficiently and economically, accompanied by more voluminous and granular data. The result should be far greater customer satisfaction, improved digital fulfilment of compliance requirements, and faster, more flexible implementation or deployment of new services or regulatory requirements.

However, making the most of ISO 20022 requires a significant and complex migration, affecting not just core payments processing, but many other banking systems and departments.

A strategic review of all internal bank information flows is strongly recommended in order to be best prepared for meeting the challenges of any future regulatory requirements. Moreover, individual characteristics of different regional ISO 20022 migration projects also have to be taken into consideration.

ISO 20022 migration is not mandatory from a regulatory perspective, but those that do not act now risk being excluded from international payment systems. That said, it should also be used as an opportunity for a robust and future-proofed standardisation strategy and, for some, a reassessment of market positioning and business models. Given this, it is crucial that ISO 200022 is on senior management and board agendas.

2 The significance of ISO 20022 migration

2.1 What is ISO 20022 and why is it important?

The International Organization for Standardization (ISO) first published ISO 20022, a global standard for payments messaging, in 2004. This standard creates a common language for payments data across the globe, enabling faster processing and improved reconciliation (see Figures 1 and 2 showing ISO 20022 message structures).

Figure 1: A simplified business information model for a payment transaction using ISO 20022



Source: SWIFT Standards

Figure 2: Part of the logical message structure for a credit transfer using ISO 20022



With the launch of SEPA, European banks were the first in the world to deploy ISO 20022 for mass payment transactions. Yet individual standards remain commonplace in many markets, with SWIFT messaging established as the common standard for cross-border payments.

Payments systems based on different standards means a lack of interoperability and poses a barrier to data automation capabilities. In many cases, payments are converted at payment gateways, often leading to the loss of relevant information. In instances where internal bank processing is not based on data-rich formats, information often has to be truncated and, after processing, once again enriched.

The decision by major central banks as well as SWIFT to migrate to ISO 20022 therefore marks a major breakthrough in standardisation efforts.^{*} With the global introduction of ISO 20022 standards for cross-border payments, a common basis will be introduced allowing data rich transmission which has previously not been possible under current message standards (see Figure 3 for a comparison of MT and ISO 20022 message granularity).

This promises a future where banks and their clients can effect payments far more efficiently and economically. Information from payer to beneficiary will flow seamlessly with full data content, meaning greater customer satisfaction and an improved digital fulfilment of compliance requirements.

	MT 103	pacs.008.001.02
Example 1: Identification of the debtor agent	:52A:EXABNL2U ←	<dbtragt> <fininstnld> <bic>EXABNL2U</bic> </fininstnld> </dbtragt>
Example 2:		<dbtracct></dbtracct>
Account number of the debtor	:50K:/8754219990 ACME NV. AMSTEL344 AMSTERDAM, NETHERLANDS	<ld> 8754219990</ld> 8754219990
Example 3: Name and contact details of the debtor	50K:/8754219990 ACME NV. AMSTEL344 AMSTERDAM, NETHERLANDS	<dbtr> <nm>ACME NV.</nm> <pstladr> <strtnm>Amstel</strtnm> <bldgnb>344</bldgnb> <twnnm>Amsterdam</twnnm> <ctry>NL</ctry> </pstladr> </dbtr>

Figure 3: Granularity of information in an MT103 vs ISO 20022 credit transfer

Source: SWIFT Standards

* SWIFT will also assume the role of Registration Authority, incorporating the administration and opening of a central ISO 20022 repository, in which the components of the messages, business process models and the derived XML schemes are contained

2.2 Why now?

Stephen Lindsay, Head of SWIFT Standards, remarked back in 2015 that "even the best designed standards only take off if they meet real and immediate needs in the market. For ISO 20022, that moment has clearly arrived."¹

While globalisation and the increasing need for interoperability of payment flows has put the strain on differing standards, the tipping point has been reached as a result of the banking industry's relatively recent digitalisation, which is driving demand for faster payments from both retail and corporate banking customers. For banks to keep up with this expectation for near instant payments around the clock, a next-generation market infrastructure is needed that can offer seamless and quicker payments processing in support of digital business models.

Further, banks face regulatory challenges like at no other point in history – especially in the areas of anti-money-laundering (AML) compliance and fraud prevention – making the ability to rapidly process large amounts of data crucial.

2.3 What are the opportunities?

ISO 20022 migration is not regulatory mandated, yet it should be used as an opportunity to implement a robust and future-capable standardisation strategy benefitting all market participants (see Figure 4 overleaf, which also notes some inevitable challenges).

First and foremost, ISO 20022 allows for the introduction of new data components, meaning far richer information can be transmitted alongside the transaction in comparison to existing formats. This, in turn, increases transparency of the payment and supports financial institutions with their task of guaranteeing secure payments processing and conforming to compliance regulations. Further, it will allow banks to offer an enhanced customer service, with the provision of rich payment data allowing digital (straight-through-processing; STP) reconciliation.

This offers banks the opportunity to re-evaluate their business models and market positioning. This should be a positive development, although those that are not ready to implement the necessary changes will have to reconsider their participation in Clearing Systems for international payments and contemplate alternatives such as using a partner for their high-value payments.

Corporates also stand to gain significantly from standardised formats and processes, while being able to integrate vendors more flexibly into their own structures. Standardised payment, reporting and exception handling messages facilitate end-to-end automation from invoicing to liquidity management, exception handling and reconciliation across the corporate's banking ecosystem.

The introduction of ISO 20022 in certain currency areas to date elucidates the potential financial benefits: the European Commission suggests, for instance, that SEPA has resulted in €21.9bn cost-savings per annum.² Even accounting for the fact that SEPA migration encompassed more than just the migration to ISO 20022, the savings associated with standardised messaging have likely been considerable.

"Even the best designed standards only take off if they meet real and immediate needs in the market. For ISO 20022, that moment has clearly arrived"

Stephen Lindsay, SWIFT

Figure 4: Why ISO 20022?

Benefits identified by the industry

Efficiency gains

Increased efficiencies from a standardised and harmonised format of financial messaging, increased STP rates

✓ Cost savings

Potential simplification of cost intensive processes such as payment processing, investigations, data analytics, reporting etc.

✓ Digital compliance

Automated analytics for various compliance purposes (i.e. sanctions screening) based on structured information

New and improved services

Enhanced customer satisfaction from improved services for corporate clients, addressing biggest pain points (e.g. reconciliation)

Challenges identified by the industry

Data truncation 🗶

Potential data truncation during the coexistence period comes with a risk for all agents and frustration for the beneficiary. Intermediary service providers must be amongst the first movers to ensure full data delivery end-to-end

> Implementation costs Significant investments and resources required until it releases anticipated benefits

New operation mode 🗶

Operating model to change to the V-shape communication method (SWIFT Y-copy service will no longer be used)

Industry-wide effort Industry-wide consensus (globally) of market requirements and standards required

Source: Deutsche Bank

2.4 Reaping the benefits

Reaping the benefits of ISO 20022 will require a significant and complex migration process, comparable to those completed for SEPA or the introduction of the euro.

The impact extends beyond just "core payments" processing, touching everything from booking systems to embargo and know-your-customer (KYC) systems, through to electronic banking, liquidity management or archiving. In addition to impacting IT and payments, numerous other areas – such as securities, trade finance, global markets and treasury – will also have to process the contained information and apply it elsewhere. This wide-ranging impact means it is crucial that ISO 20022 is firmly on board-level agendas.

Due to the richness of the information, a simple conversion – while a tactical solution – is not recommended as a long-term strategy. Instead, best practice would be to strategically restructure internal bank information flows in order to be equipped to fulfil the challenges of any upcoming regulations, and to account for differences in regional ISO 20022 migration projects (see more in Section 4).

"A simple conversion is not recommended as a long-term strategy"

3 What does ISO 20022 mean for banks?

Significant and complex internal changes are on the horizon for banks. It is crucial, therefore, that senior management are aware of the magnitude of the project in terms of resources and budget, as well as the need to secure appropriate prioritisation with existing external vendors

To plan their migrations, banks should assess:

- · The overall business implications beyond payment transactions;
- The number of transactions impacted;
- The bank's own participation in affected market infrastructures (direct/ indirect);
- · Whether the bank has its own indirect participants;
- Whether the bank offers correspondent banking services and
- If external providers are to be used as part of the service delivery.

Not undertaking any action is, in most cases, simply not an option – and would risk losing access to the central bank money, affecting liquidity management and the fulfilment of minimum reserve requirements.

3.1 Operational considerations

From an operational perspective, there are several different aspects to consider, not all of which may be immediately apparent.

The migration to ISO 20022 not only affects IT systems, for instance, but also business rules and process workflows. Here, special attention should be paid to individual business and operating models, as there are different implications for banks that are direct clearing participants as opposed to those that process payments via correspondent banking. These include communication methods and ISO 20022 usage guidelines, but also coverage to accommodate new operating hours.

The IT migration will have an impact that goes far beyond core payments processing, affecting peripheral systems such as anti-financial-crime applications (especially embargo/sanctions screening as well as AML systems), liquidity management, billing, account reporting, nostro reconciliation and archive systems.

This is therefore not just a cash management product challenge; everyone from top management to operations to human resources will need to be involved. The following areas of an organisation will be typically impacted:

- Top Management;
- Transaction Banking (Payments and Securities);
- Treasury;
- IT (Process Management, IT infrastructure, etc.);
- Sales / Relationship Management;
- Vendor Management;
- Operations;
- Service;
- Risk Management and
- Legal.

Figure 5 outlines the payments architecture of a bank, clearly showing how comprehensive the impact will be.



Figure 5: Impact of moving to ISO 20022 XML formats

Source: PPI AG

"This is not just a cash management product challenge"

3.2 Infrastructure considerations

ISO 20022 contains substantially more data than conventional legacy formats (two or three times the amount). Bank infrastructure (systems, databases, lines etc.) will need to be capable of processing these larger data volumes – and also at faster speeds for real-time payments, intraday liquidity management, compliance checks, and fraud detection and prevention.

Given the significant impact on IT architecture, it is natural that some banks may consider workarounds. One possibility is the use of a so-called convertor at the inlet/outlets of the payments processing, or at the interfaces to other systems, in order to convert existing formats into ISO 20022 or vice-versa. This approach, however, brings a number of risks and should be considered carefully in the context of its long-term implications. In particular, there is a concern that it would result in important information being lost in transmission which, in turn, may mean a competitive disadvantage or compliance problems.

For banks operating globally, or in multiple currency areas, there are additional challenges. There will be differences between the financial market infrastructures and their ISO 20022 specifications – some may require certain data fields that others do not – and there are also regional or system-determined differences in terms of migration approach (see next section for more information).



4 The migration of global market infrastructures

ISO 20022 is already the standard in certain currency areas, and will be rolled out in the coming years in others (see Figure 6)



Figure 6: Global migration of market infrastructures to ISO 20022

Source: Deutsche Bank

Naturally, there is much focus on the intentions of the key currency regions of the euro, US dollar and sterling. Here, the respective central banks have initiated migration projects accordingly, adopting one of three approaches:

- 1. A one-step, or "big bang", migration;
- 2. A multiple-step, or "like-for-like", migration (where data fields and messages are gradually moved over);
- 3. A participant-related migration.

Figure 7 outlines the phases of ISO 20022 migration of the major PMIs for the euro, US dollar and sterling currencies.*

^{*} While in the Eurozone the migration plans are set in stone, plans remain preliminary for other currency areas



Figure 7: Migration of Euro, US dollar and Sterling regions to ISO 20022

Source: Deutsche Bank

4.1 Eurozone

Where do we stand?

Euro payments in the eurozone can be cleared on both a domestic and crossborder basis via the respective payment systems:

- 1. Eurosystem* TARGET 2: a RTGS system for the eurozone;
- 2. Eurosystem TARGET Instant Payment Settlement (TIPS): a payment system for the processing of instant/real-time payments;
- 3. EBA** EURO 1, operating on a multilateral net basis: a RTGS-equivalent largevalue payment system that settles single euro transactions of high priority and urgency. It settles its end of day balances in central bank money via TARGET 2;
- 4. EBA STEP 2, for the processing of mass payments: This is a pan-European Automated Clearing House (PE-ACH);
- 5. EBA RT1: a payment system for the processing of instant/real-time payments. It provides the European payments industry with a pan-European infrastructure platform for real-time payments in euro under the SEPA Instant Credit Transfer scheme.

^{*} Comprising ECB and central banks that have adopted the euro ** Owned by shareholders of the main European banks

What's the vision?

The Eurosystem has set out its "Vision 2020" on further integration of the European financial markets³, initiating three projects to further develop the market infrastructure:

- 1. TIPS;
- 2. The consolidation of TARGET 2 (T2) and TARGET2-Securites (T2S);
- 3. Eurosystem Collateral Management System (ECMS).

Going forward, the services provided by the Eurosystem will be named TARGET Services, incorporating T2, T2S and TIPS. The technical consolidation of T2 and T2S platforms, as well as the renewal of the RTGS services, aim to increase efficiency, drive synergies, reduce operating costs and boost cyber resilience. As part of this consolidation, the communication mode will also change from the current single network provider via Y-copy to a multi-network provider via the V-shape model. This requires future messages to be addressed to the Eurosystem directly which, upon receipt, will use the financial data not only for the settlement, but also initiate a new message for the receiver based on the receiver's reachability.

The T2/T2S consolidation will take place on the basis of ISO 20022 (T2S has been using the standard since 2015). Hereby, the current decentralised access to the individual central bank systems will be replaced by a central entrance (see Figure 8). The consolidation has significant implications for all T2 participants, fundamentally altering the entire handling of central bank operations, minimum reserve requirements, payment transactions, secondary systems and access to all T2 services.

Central Liquidity Management						
	T2S Securities Settlement	RTGS High-value Payments	TIPS Instant Payments			
Common Reference Data (CRD)						
Shared Operational Services (Billing, Scheduler, etc)						
Data Warehouse						
Eurosystem Single Market Infrastructure Gateway						

Figure 8: New centralised access to T2 services

Source: Eurosystem

As with T2, EBA Clearing will also start with ISO 20022, and is currently working on the respective guidelines for migration. The migration will take place in form of a "Big Bang".

Timeline for migration

Eurosystem participants have been informed that a "Big Bang" migration will take place, with communication with the T2 system only possible via the new access method and exclusively with the new formats as of 22 November 2021.

Participants are responsible for adapting their own systems and processes. To help, 13 milestones have been defined (see Figure 9), with the Eurosystem already monitoring adherence.

Figure 9: Eurosystem migration to ISO 20022

		2018	2019	2020		202		21		
		Dec	Mar	Jul	Oct	Dec	Mar	Sep	Oct	Nov
	1. T2/T2S consolidation project set-	·up								
	2. Internal adaptation/assessment is started									
	3. Network Service Providers procured									
	4. Completion of the software development for the required adaptation changes to T2 (CLM and RTGS)									
	5. Completion of the internal testing before end-to-end market testing									
ones	6. Completion of network connectivity tests and ready to start the end-to-end market testing activities									
Milestones	7. Completion of user testing activities (including community and dress rehearsals for the migration)									
~	8. Completion of contractual and legal adaptation									
	9. Internal staff trained									
	10. Completion of operational procedures adaptation									
	11. Ready to start migration activities on production environment									
	12. Completion of migration activities									
	13. Go-live of T2									

Source: PPI AG

EBA Clearing is scheduled to move its Euro 1/STEP 1 system to the ISO 20022 messaging standard in line with the Eurosystem's migration timelines for the TARGET2 platform.

4.2 US dollar area

Where do we stand?

International US dollar payments are either cleared via Fedwire, the RTGS funds transfer system operated by the Federal Reserve Banks, or via CHIPS of The Clearing House (TCH), a clearing house organised under private law.^{*}

What's the vision?

In October 2017, the Fed announced the migration of Fedwire to ISO 20022 – deeming it a strategic initiative to improve the US payment system.⁴

In contrast to the eurozone, the US is to follow a phased-implementation, meaning that after an initial preparation period, existing data fields will be migrated to the new format in a "like-for-like" approach. The standard will then be extended to become fully fledged once the whole community has migrated to ISO 20022.

Anticipated timeline

Following the preparation period, Fedwire will offer conversion services in both directions (Fedwire proprietary format vs. ISO 20022) to allow banks that have already migrated to communicate with those who have not (see Figure 10). In the final phase (phase 3, as of November 2023) all banks will gradually complete the ISO 20022 migration.

TCH is following the phased approach of the Fed both from a timing and content perspective. As a deviation to the Fed, however, TCH is advocating a full migration to ISO 20022 (phase 3) after SWIFT has made the necessary ISO messages available.

Figure 10: US migration to ISO 20022

Legacy Changes November 23, 2020	ISO like for like (18 months – begins in Q1 2022)	Stability Period (3 months)	ISO Enhancements Q4 2023			
 Phase 1 "Big bang" implementation to accommodate SWIFT MT changes to originator and beneficiary fields To prepare for and simplify the Fedwire Funds Service's migration to ISO 20022 messages 	 Phase 2 Migrate Fedwire Funds Service participants in waves over 18 months to send and receive ISO 20022 messages that have fields and character lengths that are comparable to the legacy format The Fedwire Funds Service will translate the legacy format to ISO 20022 and vice versa when necessary The Fed will sunset legacy format at end of this phase 		Phase 3 "Big bang" implementation to enable participants to send optional enhancements 			
ISO 20022 implementation to be completed by the end of 2023						

Source: Deutsche Bank

* Low value, bulk and direct debits are cleared via the ACHs. These along with the clearing of paper-based payment methods (such as cheques) are not being considered in this paper

US correspondent banks granting domestic US banks access to incoming international dollar payments may face a challenge after the like-for-like ISO 20022 migration. In compliance with the "Travel Rule" they must provide all data received to the next party in the payment chain for their own transaction due diligence related to anti-financial-crime compliance. However, in cases where the next in the chain is unable to receive extended ISO 20022 data, an alternative communication method must be agreed.

4.3 Sterling area

Where do we stand?

In the UK, Sterling payments can be cleared via multiple clearing houses. There are clearing houses organised under private law, such as Bacs, Faster Payments and the Cheque and Credit Clearing Company (subsidiaries of Pay. UK, the national retail payments authority), as well as the CHAPS, the RTGS system for the clearing of central bank money of the Bank of England (BoE). This paper focuses primarily on CHAPS, the retail payments system, Faster Payments and Bacs.

Currently, payments are exchanged in different formats: Bacs uses the proprietary Standard 18 format, CHAPS uses SWIFT formats. In CHAPS each payment is separately settled and debited; the offsetting of daily balances in Bacs takes place via an account at the BoE.

What's the vision?

In summer 2018, the BoE published a consultation paper on the modernisation of the UK payments system, in which it outlined its intention to establish a new architecture based on ISO 20022. The national Payment Systems Regulator (PSR), the economic regulator for the payment systems industry, announced that Bacs and Faster Payments would also have to migrate.

Anticipated timeline

The BoE has set out four phases for the migration (see Figure 11 overleaf). The preparation phase is set to be completed by the beginning of 2022, with the introductory phase (like-for-like) running until mid-2023. The third phase, termed the "enhancement phase", is due to be completed by the first quarter of 2024, to be followed by the "mature phase".





Throughout this process, the Bank will issue further guidance to industry on ISO 20022 implementation

Source: Bank of England

The BoE, Pay.UK and PSR plan to work together on executing the migration, tendering for a partner that can support with the development of the new payment system architecture (a process due to be completed by mid-2020).

4.4 SWIFT

Where do we stand?

Currently, SWIFT participants use MT formats for the transmission of crossborder payment messages although, in response to industry demand, SWIFT has already made ISO 20022-based XML messages (MX) available.[•] MX messages are exchanged today within a closed user group via the SWIFT network.

Timeline for migration

From November 2021, shortly before the migration of the Eurozone, SWIFT will start completely moving to ISO 20022 format over a four-year period.⁵ In order to facilitate the migration from MT to ISO 20022, there will be a temporary co-existence phase, enabled by means of a conversion service (Figure 12 shows the ISO 20022 equivalent of the MT messages).

Nevertheless, the responsibility for complete processing of the transmitted data lies with the bank using conversion services. This is especially important for conducting necessary AML, counter-terrorism financing and sanctions checks.

* It should be noted that the migration to the new format will affect all category 1, 2 and 9 MT messages

Figure 12: SWIFT MT vs. ISO 20022 format

FIN MT	Message Name	ISO 20022 equivalent
MT 101	Request for Transfer	pain.001
MT 102	Bulk Customer Credit Transfer (Multiple)	pacs.008
MT 103	Customer Credit Transfer (Single)	pacs.008
MT 104	Direct Debit And Request for Debit Transfer Message	pacs.003
MT 110	Advice Of Cheque(s)	camt.029 (tbd)
MT 111	Request for Stop Payment of a Cheque	camt.056
MT 112	Status of a Request for Stop Payment of a Cheque	pacs.002 (tbd)
MT 103/2 (Original payment message with RETN code in field 72)	Return of Funds	pacs.004
MT 200	Financial Institution Transfer for its own Account	pacs.009
MT 201	Multiple Financial Institution Transfer for its own Account	pacs.009
MT 202 / 202 COV	General Financial Institution Transfer	pacs.009
MT 203	Multiple General Financial Institution Transfer	pacs.009
MT 204	Financial Markets Direct Debit Message	pacs.010
MT 205	Financial Institution Transfer Execution	pacs.009
MT 202 (Original payment message with RTN code in field 72)	Return of Funds	pacs.004
MT 900	Confirmation of Debit	camt.054
MT 910	Confirmation of Credit	camt.054
MT 920	Request Message	camt.060
MT 940	Customer Statement Message	camt.053
MT 941	Balance Report	camt.052
MT 942	Interim Transaction Report	camt.052
MT 950	Statement Message	camt.053
MT n92	Request For Cancellation	camt.056
MT n96 n99	Response for Cancellation	camt.029
MT n95 n99	Queries: Unable to Apply, Request To Modify, Claim Non Receipt, etc.	camt.026, camt.087, camt.027, camt.033
MT n99	Case Management: Reject Investigation, Cancel Case Assignement, Notifiication of Case Assignment, Notification of Case Assignment, etc.	camt.031, camt.032, camt.030, camt.038
MT n96 n99	Answers: Resolution of Investigation, Additional Payment Information, etc.	camt.029, camt.028, camt.039
MT n90	Advice of Charges, Interest and Other Adjustments	tbd
MT n91	Request for Charges	tbd

Source: Deutsche Bank

21

Working groups

Migration is supported by a number of working groups (see Figure 13). In August 2016, SWIFT, together with the largest global banks and market infrastructures, established the High Value Payments Plus (HVPS+) working group to define global implementation guidelines for ISO 20022, with the goal of fostering harmonisation and unlocking the advantages of automated processing, increased transparency and data-rich payments.

Together with the Payments Market Practice Group (PMPG), SWIFT established the Cross Border Payments and Reporting Plus (CBPR+) group in order to develop global usage guidelines for the exchange of cross-border payments and reporting in the correspondent banking ecosystem. These will be published on SWIFT's web application, myStandards, and serve as basis for the central conversion service made available by SWIFT during the coexistence phase. PMPG will further complement the "toolbox" with the publication of specific market practices for cross-border payments.

As a result of client demand for global multi-bank coordination, the Common Global Implementation Market Practice (CGI-MP) initiative was launched as a forum for banking associations, corporates, business associations and market infrastructures. CGI-MP's aim is to enable multi-bank, standardised, and global ISO 20022 XML implementations in the corporate-to-bank business area.



5 Move first, move fast

For a mid-sized bank, the ISO 20022 migration project can result in a high four-digit outlay in terms of "project working days". With larger banks the outlay is likely to be even higher. The ISO 20022 migration project is therefore the payment industry's greatest challenge since the introduction of the Euro – but also its greatest opportunity

To make the most of this, each bank requires a clear migration strategy before it starts, and should consider:

- Should the connections to the respective infrastructures (direct / indirect) be maintained or adapted? What are the consequences and risks associated with the respective changes?
- Should the migration be carried out in numerous steps or should as much as possible be performed in one single step? The T2 and SWIFT migration could, for example, be managed in a single project with a deployment close to each other
- Should the entire architecture be migrated to ISO 20022 or are some tactical workaround solutions integrated into the overall strategy?
- Which IT changes are most appropriate: make, use or buy?

The answers to these questions should be clarified within the framework of a pre-evaluation.

Acting as a "first mover" may potentially result in a competitive advantage – bringing earlier the benefits of harmonised standards, amortising the investments on the bank side and securing end-to-end efficiency of the payments ecosystem. Yet it will require a clear strategy and it is critically important that senior management are involved from the very outset to secure the necessary commitment to the project, timely resources and budget.

Moreover, it is important to incorporate clients and external partners (such as vendors) and other stakeholders as well as compiling information that is made available from the respective payment infrastructures (Figure 13 overleaf, as an example, shows the different functions involved in Deutsche Bank's T2/T2S consolidation project).

Successful migration would be a quantum leap for banks, and for the industry as a whole.

"It is critically important that senior management are involved from the very outset"



Source: Deutsche Bank

6 Future editions

As outlined in this paper, the ISO 20022 migration will take years to fully implement and will not be without its challenges. As such, our series of guides will keep you abreast of all the latest developments and highlight key points for consideration

Our next edition in this series will look at the migrations of the euro (with a focus on T2/T2S consolidation and EBA Clearing), US dollar and sterling areas, covering:

- An update on the most recent developments and communication
- Key changes to the status quo
- Project priorities and timelines
- Potential approach (tactical vs. strategic) depending on role of the bank (direct participant, correspondent banking service provider, indirect participant/correspondent banking user)
- Impact on the corporate customer
- Key challenges
- Final documentation

The next edition will also take a deep-dive look at SWIFT's migration, providing:

- An update on the most recent developments and communication
- An update on decisions and output from CBPR+ and HVPS+
- Testing
- Translation/mapping rules
- Potential approach (tactical vs. strategic) depending on role of the bank (correspondent banking service provider or correspondent banking user) as well as impact on the corporate customer
- Key challenges

We hope that you find this series useful as you embark upon your own migration journey.

References

- ¹ See SWIFT for ISO2022 presentation, https://www.slideshare.net/ SWIFTcommunity/swift-for-iso-20022-47105887
- ² See "Economic analysis of SEPA" at pwc.com, https://pwc.to/2GaYUxS
- ³ See "The future of Europe's financial market infrastructure: the Eurosystem's Vision 2020", https://www.ecb.europa.eu/press/key/date/2015/html/ sp151014.en.html
- ⁴ See "Federal Reserve Announces ISO 20022 Migration Timeline for the Fedwire Funds Service", https://fedpaymentsimprovement.org/news/pressreleases/federal-reserve-announces-iso-20022-migration-timeline-fedwirefunds-service/
- ⁵ See "SWIFT community to embark on migration to ISO 20022 for payments traffic", https://www.swift.com/news-events/news/swift-community-toembark-on-migration-to-iso-20022-for-payments-traffic

This document is for information purposes only and is designed to serve as a general overview regarding the services of Deutsche Bank AG, any of its branches and affiliates. The general description in this document relates to services offered by Global Transaction Banking of Deutsche Bank AG, any of its branches and affiliates to customers as of April, 2019, which may be subject to change in the future. This document and the general description of the services are in their nature only illustrative, do neither explicitly nor implicitly make an offer and therefore do not contain or cannot result in any contractual or non-contractual obligation or liability of Deutsche Bank AG, any of its branches or affiliates. Deutsche Bank AG is authorised under German Banking Law (competent authorities: European Central Bank and German Federal Financial Supervisory Authority (BaFin)) and, in the United Kingdom, by the Prudential Regulation Authority. It is subject to supervision by the European and supervision by these authorities are available on request. Copyright© April, 2019 Deutsche Bank AG. All rights reserved