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ISO 20022 in corporate payment transactions

Opportunities and relevance for companies

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Content

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The essentials in brief

1. ISO 20022 is a standard that provides XML message types for various business processes in the financial sector.

2. The ISO 20022 standard leads to an increased level of standardization and structuring of data. This results in the following advantages:

   - Increase in STP rate (straight through processing) and efficiency,
   - Facilitation of compliance requirements (sanction screening, etc.),
   - Digital end-to-end processing of payments from payer to beneficiary.

3. ISO 20022 is not only relevant for banks, but also increasingly for companies from other sectors.

4. Relevant processes:

   - Payment transactions (credit transfers and direct debit),
   - Bank-to-customer reporting (account statements, etc.).

5. In connection with an ISO 20022 transition or implementation, it is prudent to also consider the following aspects:

   - Connectivity to banks and representation of processes in software so that the architecture does not prevent full automation,
   - Strategy for centralization in payment transactions and cash management (payment factory, in-house banking, cash pooling, netting, virtual accounts).

6. Possible project approach for implementing the ISO 20022 standard:

   - Three stages: workshop, pre-study and implementation
   - Implementation: agile or waterfall

01. Overview

1.1 Background to the introduction of ISO 20022

Providers of payment transaction infrastructures are converting the exchange of messages with banks from the proven, text-based MT format to the XML-based standard ISO 20022 (also known as MX format). Prominent examples in the Eurozone are the migration of the ECB's TARGET 2 system, where banks hold their central bank accounts, and the migration of EBA Clearing's EURO1 clearing system (both took place in March 2023). ISO 20022 will also be introduced in interbank transactions (CBPR+) between 2023 and 2025. The communication network SWIFT will stop supporting the MT format for banks in November 2025.

It is important to note that this only applies to banks . In terms of SWIFT communication between companies and banks, there is no end date yet for the support of the MT format. In this respect, the choice of format for communication between the company and the bank (payment transactions, account statements, etc.) is still a matter of negotiation. Nevertheless, some banks will stop supporting the MT format in the next few years and will urge their customers to switch to ISO 20022. Irrespective of this, companies should actively engage with the new standard to evaluate the benefits.

The MX format offers a higher level of standardization. This enables smoother automatic processing with significantly higher STP rates (straight through processing) and thus greater transparency as well as more secure and efficient processes. The main advantage of the new XML-based MX formats (ISO 20022) is that the information to be transmitted is presented in a more structured manner. The individual fields or tags are arranged hierarchically. A separate tag is available for each piece of information. In the MT format, individual fields have often been overloaded with different information, which were then structured in a bank-specific way within the field.

1.2 Relevance for companies

The so-called "Common Global Initiative–Market Practice" (CGI-MP)[1] was founded in 2010 and is an initiative that works to standardize the new MX formats relevant for communication between companies and banks. The CGI-MP is organized into various working groups in which representatives from various companies and banks are involved. Payment transactions including direct debits and bank-customer reporting (account statements, etc.) are the relevant topics for most companies. However, there are several other topics covered that have no equivalent in MT formats. This primarily involves electronic account management (eBAM) and bank services billing (BSB).

The business processes for payment transactions and bank-to-customer reporting and the associated message types will be examined in detail in the following section.

1 CGI-MP: https://www.swift.com/de/node/34731

02. Business processes and associated formats

2.1 Payment transactions

Credit transfers and direct debits
The basic requirement that companies place on their banks around payment transactions is the execution of credit transfers and direct debits. The details of how this requirement is implemented can vary greatly and often depends on the size of the company, the number and type of payments to be made, the banks the company works with and, last but not least, the country or currency in which the payments are to be executed. The degree of automation of the payment processes ranges from manual entry in bank-specific online banking to automated creation of MT or MX-based payment formats and their transmission to the bank via the SWIFT network or EBICS.[2] These different variants often coexist. For example, MT messages are exchanged with the principal banks in the main currency, while other currencies with low turnover might be handled via online banking of a bank in the respective country of the curreny.

The MT formats for transfers (MT 101) and direct debits (MT 104) already represent a degree of harmonization and standardization and can be used across banks. However, when looking at the details, there are bank-specific differences in terms of completing specific fields. This often requires complex logic within corporate systems and therefore leads to a higher error rate and increased manual effort. The disadvantage of the MT format is, among other things, that relatively few fields and short maximum field lengths are available. This creates the need to accommodate different types of data in the same field, usually in a non-standard, bank-specific manner. This is where one of the major differences and advantages of the ISO 20022 formats' arises. In these formats, the data is more structured since each piece of information has its own field. How the individual fields are to be used and which value range is permitted in each case was decided in the CGI-MP working groups, in which numerous bank and company representatives participated. This ensures that all fields required for structuring the data are available and that they can be used consistently. This reduces the error rate in data processing for the company and increases the degree of automation (STP rate) and thus leads to a lower risk and operating costs.

The sub-process of checking the sanctions list in payment transactions also benefits from the new ISO 20022 formats. The improved structure facilitates this check (sanction screening), which must be carried out by companies to prevent money laundering and terrorist financing. Names and address data can be compared more precisely in the new format, which decreases the number of false positives and thus reduces manual effort.

The formats of the **pa**yment **in**itiation (pain) category that are relevant for corporate payment transactions are pain.001 (credit transfers) or pain.008 (direct debit) and pain.002 (status report). With the latter format the bank confirms successful receipt or sends an error code (Figure 1).

2 EBICS (Electronic Banking Internet Communication Standard) is a communication protocol for the secure exchange of bank files with banks in France, Germany, Austria, and Switzerland.

Message types for credit transfer and direct debit

Customer-to-Bank

pain.001 (MT 101)	Credit Transfer
pain.008 (MT 104)	Direct Debit

Bank-to-Customer

pain.002	Status Report

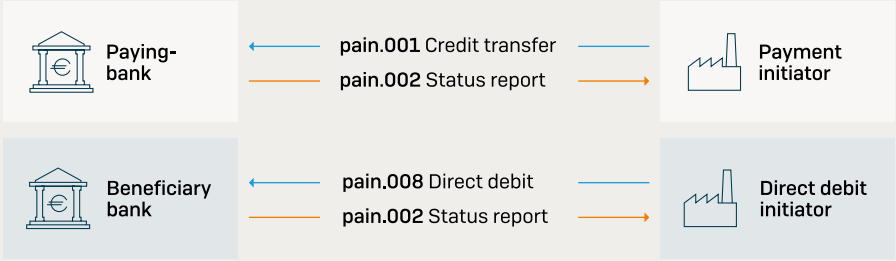

Figure 1: Customer-to-bank payment initiation

Management of direct debit mandates

The execution of a direct debit requires a direct debit mandate. The following ISO 20022 formats are available for their management.

Message types for direct debit mandates

Customer-to-Bank

pain.009	Mandate Initiation
pain.010	Mandate Amendment
pain.011	Mandate Cancellation

Bank-to-Customer

pain.012	Mandate Acceptance Report

Disposition using notifications to receive
In addition to many low-value payments, there are also high-value payments in companies, e.g., in the treasury and financial departments. In this context, there is often a requirement to closely monitor the expected incoming payments with regards to deviations in amount and date. For this purpose, a company can use a specific message type from the cash management category (camt.057) to inform the account-holding bank that a specific cash receipt is expected on this account. This information is typically generated from the treasury or ERP system. The bank holding the account replies with the associated status report (camt.059). It contains either: a confirmation of receipt of the specified amount, information about deviations, or non-receipt of the amount (Figure 2).

Message types for notifications to receive

Customer-to-Bank

camt.057	Notification to Receive

Bank-to-Customer

camt.059	Notification to Receive Status Report

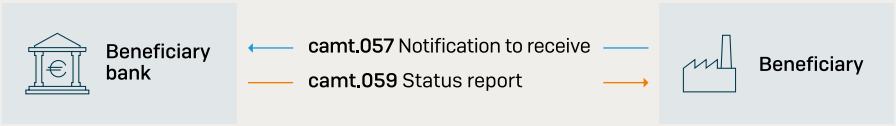

Figure 2: Notification to Receive

2.2 Bank-to-customer reporting

The processing of bank statements is an important part of the daily operation of a corporation. Be it to ensure consistency between the data in the subledgers and the payments posted in accounting or to reconcile expected cash flows (forecasts) with payments made during cash positioning. Automated transactions between internal clearing accounts (intercompany accounts) are also often triggered based on account statement items, e.g., as part of a cash pooling process.

To allocate the individual items and to offset external payments internally, if available also via master accounts, it is necessary to identify the asociated account statement movements using certain parameters. In addition to the basic data (amount, value date, currency), only a few unstructured fields are available in the previous formats, such as the purpose (line 86) in the MT940 statement format.

As a result, each bank encodes the relevant information in its own way in bank statement files. In an environment with numerous international banking partners, this requires companies to implement complex algorithms to ensure that the system can automatically and correctly allocate as many payments as possible. Due to the lack of structure in the available fields, the process is also error-prone and requires much manual intervention.

According to the new ISO 20022 standard, the messages relevant for bank-to-customer reporting are account statements of the types camt.053 for end-of-day statements, camt.052 for intraday statements and camt.054 for debit/credit confirmations and detailed breakdown of bulk payments. Just like the pain formats for payment transactions, these message types contain many structured fields that allow banks to store relevant transaction data in a uniform manner. Thanks to the XML structure, the information can also be easily extracted and processed further. In addition, format specifications for the individual fields reduce the susceptibility to errors, since the correctness of the data is already checked by the bank when it is entered, which means that unnecessary errors, such as incorrect date formats, can be prevented from the outset.

The resulting advantages are obvious. Even though there will still be small differences between the account statements of different banks using ISO 20022, the data supplied is more uniform and can therefore be processed more efficiently by different systems. This also reduces the proportion of transactions that are not covered by the logic implemented in the system and therefore processed manually. This increase in the STP rate leads to a streamlining of the processes and consequently significant cost and time savings.

The almost complete automation of account statement processing not only optimizes the existing processes. The possibility of processing account statements (even intraday) almost instantaneously opens new possibilities that would have been unthinkable in the previous setting. This means one does not have to wait until the following day to receive confirmation that a booking has been made as booking data can be processed in near real time. In connection with new intraday forecasting processes, the cash manager has more precise knowledge of the cash position of all accounts and can react early if necessary and initiate appropriate measures.

Message types for bank-to-customer reporting

Bank-to-Customer

camt.052 (MT 942)	Bank To Customer Account Report (intraday)
camt.053 (MT 940)	Bank To Customer Statement (end-of-day)
camt.054 (MT 900/910, DTI)	Bank To Customer Debit Credit Notification

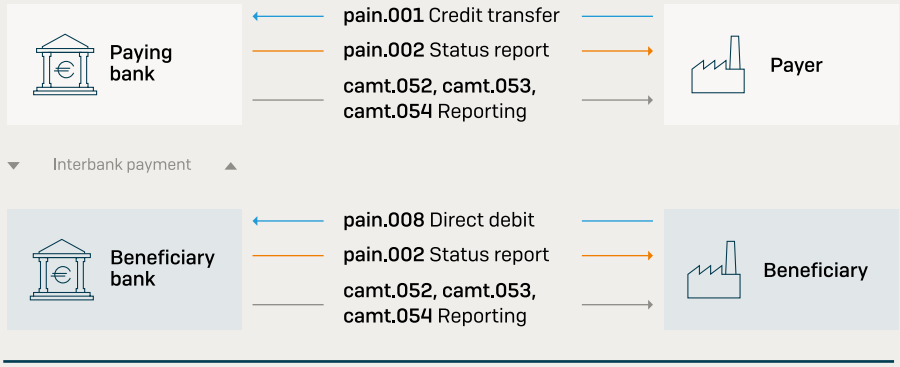

Figure 3: Payment transactions and bank-to-customer reporting in an overall view

03. Implementation strategy

3.1 Consideration of the entire process chain

In addition to APIs[3], ISO 20022 is the standard of the future and, as explained in the previous sections, offers a number of advantages that must be considered and evaluated on a case-by-case basis.

Even if the new formats are one of the biggest changes in payment transactions in recent years, it is advisable to consider the entire process chain of the respective business process before implementation so that one can fully benefit from the opportunity of improved automation. Two aspects in particular play a decisive role here:

1 The type of connection to the bank should be real-time or at least near-time capable in both directions to meet the requirements of a future-proof treasury and, in particular, cash management.

2 The process must be adequately represented in the software. Special software solutions for corporate payment transactions, and treasury management systems and ERP systems from various vendors, come into consideration here.

3 API (Application Programming Interface): Interface for communication between independent applications.

In some cases, it might be prudent as part of the modernization of the payment transaction processes to fundamentally review the closely related processes in the company's cash management, since greater automation in payment transactions usually affects the measures used for cash centralization. In particular, it may be necessary or useful to introduce or revise typical instruments such as payment factories, in-house banking, cash pooling, netting and virtual accounts.

3.2 Concrete approach

When introducing the ISO 20022 standard, we offer a three-stage approach:

1 Workshop: The current situation is recorded, and insight into potential optimization options is gained.

2 Pre-study: The costs, benefits and feasibility of various implementation scenarios are analyzed and compared. Their prioritization facilitates a decision for implementation.

3 Implementation: The implementation follows the results of the pre-study. If the planned implementation is large in scope or highly complex, a phased approach is advisable. First, the project can be segmented according to the various end-to-end processes (and thus e.g., according to groups of message types). Depending on the existing complexity drivers, such as international subsidiaries, a heterogeneous system landscape or the use of different payment methods, the implementation must be planned systematically.

We would be happy to support you where you can leverage our experience in the areas of payment transactions, cash management, business analysis and system implementation, as well as in project management.

Contact

Do you see relevant aspects for your company? Would you like to talk to the d-fine experts for payment transactions, cash management, corporate treasury and finance about the possibilities for your corporation?

Contact us!

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