

ISO 2022 Payments Migration and Interoperability Considerations for the global Community

Version 1.0

July 9, 2022

Overview of ISO 2022 Payments Migration

The financial industry's payments and payment messaging systems are moving rapidly to adopt ISO 2022: a rich, structured format for payments data that replaces a mixture of incompatible and inconsistent legacy domestic and international standards. This program has been welcomed by the global regulatory community (CPMI, FSB) as the convergence to a common format for payments and reporting promises many benefits, including for the industry's ability to detect and prevent financial crime, improve STP and support the needs of a more digital economy.

These benefits will not be realized all at once, particularly for international payments, which typically require multiple steps in both domestic and cross-border infrastructures. The migration to ISO 2022 is proceeding at different speeds in different markets. We encounter a period of several years during which ISO 2022 and legacy standards will coexist, and this brings some short-term challenges on the journey towards complete ISO 2022 data being available end-to-end.

The purpose of this document is to set guidance and provide clarity for agents in a multi agent payment chain to:

- (1) determine if the data can be supported in the end-to-end payment chain
- (2) identify whether any received data is incomplete
- (3) utilize a standard process to inquire about the incomplete information if necessary

and

- (4) be comfortable to process the data for onward credit to the next agent

Key Timelines and Considerations

The SWIFT Cross Border Payments Reporting (CBPR+) migration to ISO 2022 will begin in November 2022 and will end in November 2025. During this period, data rich ISO 2022 messages can be exchanged over the SWIFT infrastructure. Legacy MT messages will remain in use for payments and cash reporting during this time.

While SWIFT will begin this transition in November 2022, in line with the ISO 2022 migration of the European Market Infrastructures supporting the euro, not all market Infrastructures will be ready to

support the data rich ISO 20022 messaging standard at this time. A simultaneous migration of multiple market infrastructures on the same day creates too much risk and hence the migration will take place over several years, creating data integrity challenges during the migration period. Market Infrastructures are outside the scope of the CBPR+ migration and will make decisions about implementing ISO 20022 on their own timelines as relevant to their local community.

An important tool to support the global community in its journey to ISO 20022 is the new SWIFT Transaction Manager (TM). Access to the transaction copy that is created by the first MX message captured by the SWIFT network and its data integrity functionality will help to bridge message standard differences between CBPR+ and legacy MT formats that are currently used between banks.

The SWIFT TM was originally planned to be launched in November 2022 to coincide with the beginning of the ISO 20022 migration. A gradual ramp-up of transactions, prioritizing those carrying rich data would have supported the gradual adoption of data rich messages. However, transaction ramp-up will now begin in March 2023, creating a period where banks need to rely on partially manual efforts to disseminate rich data.

In absence of an alternative data integrity tool and due to the different MI migration schedules the PMPG and SWIFT advise the market as follows:

- (1) Banks should delay the origination of the following rich data elements for cross-border payments until November 2023 the earliest:
 - a. Ultimate Debtor
 - b. Ultimate Creditor
 - c. Category Purpose
 - d. Structured remittance data
 - e. Related Remittance info
- (2) If an origination channel for cross border payments has already been upgraded before November 2023 to support rich ISO data the bank should reach out to their customers and request that they refrain from populating these elements until November 2023. It should be highlighted to customers that those payments containing rich ISO 20022 data elements might trigger payment delays in the bank channel and cause potential recon issues for the creditor.
- (3) Should rich data elements be received by an agent and cannot be passed on with full data integrity to the next agent then the agent should follow [CBPR+ Data Integrity Market Practice Guidance](#)
- (4) Local payment councils and SWIFT industry groups should publish guidance to their market and educate the local community. (Example: Banking Associations in Germany and UK have published recommendations and requests that banks should advise customer to migrate to ISO 20022 in November 2023 at the earliest)



By November 2023 market infrastructures for EUR, GBP, AUD, ZAR, CHF and USD (only CHIPS will support ISO 20022 natively and pass on data rich payment orders, Fedwire Funds Services will follow in March 2025). In addition, the Transaction Manager will be fully available to support data integrity across the correspondent banking chain regardless of currency. We believe that the cross border payments industry will have the maturity by November 2023 to support data rich ISO 20022 transactions.

The above approach to

- **Avoid rich data origination** by not enabling the usage in channels
- **Minimize rich data creation** for enabled channels by educating users
- **Support rich data propagation** via existing RFI models if it reaches an agent.

should help the industry to avoid payment delays and reduce the need for exception handling.

Over the next three years the global payments industry and Market Infrastructures must aim to migrate to rich ISO 20022 messaging standards as soon as possible and before November 2025 to drive consistency of information exchange across all payment participants. The lack of consistency will continue to increase transparency risk and may exacerbate the potential interoperability issues and reducing the data that can be transferred between cross-border participants.

Appendix

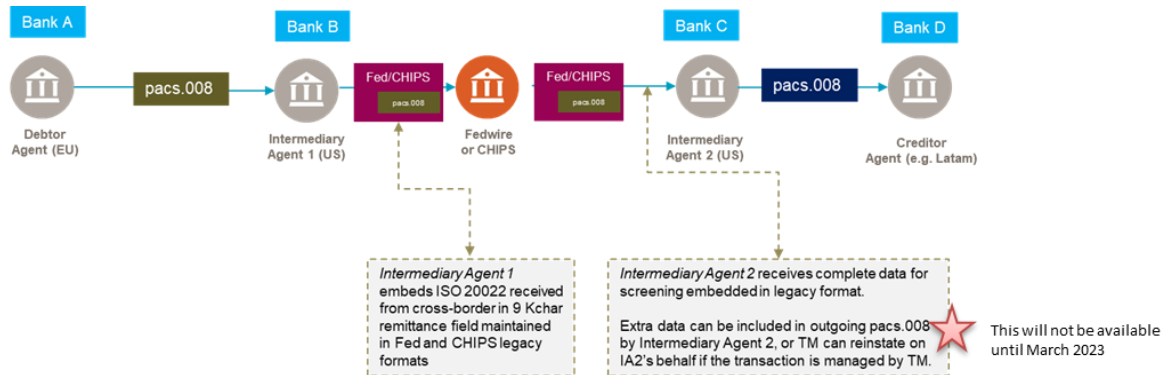
In addition to the CBPR+ Data Integrity Market Practice Guidance local markets have developed solutions and practices to cope with rich data in the transition period. Below are examples of local strategies and how they impact the end-to-end payment process. These illustrations demonstrate the impact on the payments process if rich data is present in cross border payments.

Market specific illustration: US Market (CHIPS and Fedwire Funds)

The US market might adopt full ISO 20022 for high value payments starting November 2023. While the Federal Reserve has announced a delay of their ISO 20022 migration until March 2025 CHIPS will proceed in November 2023. Before ISO 20022 is available domestically in the US, High Value Payment System (HVPS) participants face the possibility that a rich ISO 20022 instruction (e.g., pacs.008) arrives cross border and includes data that cannot be accommodated in the legacy CHIPS or Fedwire format, leading to data integrity and quality challenges like those described in the previous section.

The US payments community has defined a temporary workaround to address this concern, which requires sending participants to embed rich ISO 20022 data inside the legacy message field {8200} for Fedwire and field [900] for CHIPS as shown below. The maximum message size supported for the embedded MX is 9,000 char. Any message content exceeding this message field size for field {8200} for Fedwire or field [900] for CHIPS will be rejected by the payment system and returned to the originating bank.

Flow with the SWIFT TMP (post March 2023):



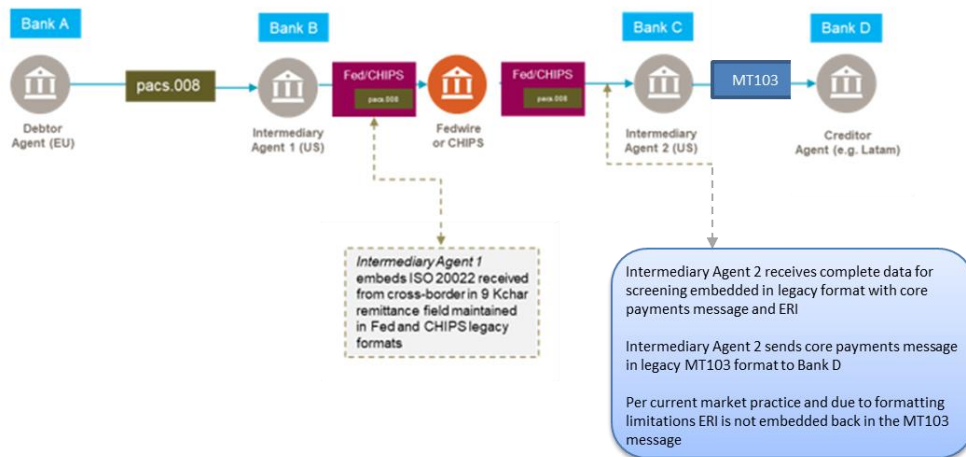
US market coexistence workaround

This process ensures that all Fedwire and CHIPS participants will receive a copy of the incoming MX messages if the legacy fields cannot capture the incoming data elements completely. Should an agent in the US receive a payment order via Fedwire/CHIPS and instruct another agent (Bank D in the chart above) downstream via SWIFT then the SWIFT TM will preserve the data integrity. Following industry agreed rules the SWIFT TM will restore certain fields based on the original version of the message that

the debtor agent committed to the SWIFT network and any additional settlement and routing information provided by the intermediary agents.

With the SWIFT TM gradual ramp-up now beginning in March 2023, there will be no other infrastructure support available to include the data pushed into the field {8200}/[900] across Fedwire Funds and CHIPS back into the payments message.. Bank D will instead receive an MT103 or pacs.008 with potential truncated or missing data that was included in the legacy payments message across Fedwire Funds and CHIPS. This is aligned with market practice today where extended remittance information is dropped from the outbound MT103 if included in messages sent across the Fedwire Funds Service (unless the use of the MT103 REMIT has been bilaterally agreed).

Flow from November 2022 to November 2023:



While the data flow from November 2022 to March 2023 is not optimal, it is expected that overall risk of deterioration of data integrity of certain data content during this time is likely to be minimal due to a few key factors:

- It is early in the ISO 20022 migration period. While EUR market infrastructures will go live in November 2022, the volume of enriched ISO 20022 messages is expected to be low as only a few banks have upgraded their initiation channels to include or capture rich ISO 20022 data from their customers. Additionally, bank customers will need to upgrade their ERP systems, treasury management platforms and transmission formats to capture and transmit the new data elements in payment instructions. As more updated banking channels come online, the number of data rich ISO 20022 messages will likely increase over the coming years.
- There is existing market practice in place through the PMPG warning about the risk of truncation if enriched messages are sent to non-ISO 20022 enabled market infrastructures¹.

¹ <https://www.swift.com/swift-resource/251732/download>

- CBPR+ translation rules prioritize the party data elements according to Wolfsberg group guidance to ensure critical name, country and town data is maintained. even if some names might be abbreviated.
- The time gap in the availability of the SWIFT TM is relatively small—only spanning from November 2022 to March 2023, when the TM service will gradually ramp up.
- Misalignment of message formats between the US domestic infrastructure and SWIFT messages is not new and workarounds have been acknowledged in the past. In November 2010 FINCEN highlights that: “Currently, limited interoperability between systems may prevent a bank from choosing to include certain supplementary information in a payment order. These limitations, however, may be temporary as systems develop.”²
- For additional information see: <https://www.fincen.gov/resources/statutes-regulations/guidance/funds-travel-regulations-questions-answers>
- The industry mapping specifications from MX to MT and MX to Fedwire Funds/CHIPS legacy formats preserve the data (parties and agents) that banks receive today. If the originator uses the same data as prior to the introduction of MX messages data integrity will be preserved. The mapping specifications indicate where data has been truncated at the end of the line to provide transparency.

Market specific illustration: Japan

Japan has implemented the Foreign Exchange Yen Clearing System (FXYCS) which acts as a messaging application to its national RTGS (BOJNET) as the main channel for intermediating incoming JPY denominated cross border payment flows. FXYCS and the underlying BOJNET have adopted ISO 20022 since 2013 using the ISO 20022 version available at the time. The Japanese community has been discussing for the last two years on how to handle incoming CBPR+ messages (MX) from November 2022 onwards and forward it to the creditor agent using FXYCS. The following two phases approach has been agreed:

1. During the initial co-existence period from November 2022 an agreed mapping of incoming MX into the current FXYCS ISO 20022 format has been implemented. No changes are expected in the existing FXYCS messages. A detailed mapping guide has been published in 2021 and banks are implementing the mapping rules.
2. The Japanese community and the operator of FXYCS / BOJNET will agree on a future date to upgrade the current FXYCS format to a format that is interoperable with the current HVPS+ format.

² Page 2: <https://www.fincen.gov/sites/default/files/guidance/fin-2010-g004.pdf>

Additional considerations have been given to the maximum message size that BOJNET can currently support. Any message exceeding the maximum message size of 10 kilo bytes, the equivalent size of an MT messages, will be rejected by BOJNET.

The market has agreed to implement the following market practice.

1. The rejected message has to be resent from the intermediary agent to the instructed agent, domestic creditor agent in most cases, as a (shortened) FXYCS funds transfer message notifying the instructed agent that there is a funds movement.
2. The instructing agent generates a second message (pacs.008, pacs.009 or pacs.009COV) to the creditor agent with the same UETR so that the creditor agent can screen and process against the complete messages. Banks staying on MT will need to generate an auxiliary SWIFT MT 103, 202 or 202COV.
3. To avoid duplicate processing the instructing agent is also required to notify of the instructed agent about the two separate messages.

Market specific illustration: United Kingdom

The UK CHAPS high-value payment system will switch to full ISO 20022 in April 2023. Before that date, the CHAPS community faces a similar challenge to those of the US³: a rich ISO 20022 instruction may originate cross border that includes data that cannot be accommodated in the legacy CHAPS (SWIFT MT 103) format.

The CHAPS community advises correspondent banks that will use ISO 20022 messaging across the SWIFT correspondent banking network to refrain from including Enhanced Data elements that do not have equivalent fields in the CHAPS MT messages within GBP-denominated customer payment instructions, before the CHAPS system migrates to full IOS 20022 messages. For payments that originated via data rich ISO 20022 the receiving CHAPS direct participant (DP) has a right to request, and the sending CHAPS DP must provide all of the additional information that was contained within the enhanced message but truncated from the MT CHAPS payment instruction. The CHAPS direct participant will support this process through their existing exceptions and enquiries processes, with the sender transmitting the additional information requested via the SWIFT MT199 message type.

The complete guidance is available via the [Bank of England ISO 20022 resource site](#).

Market specific illustration: Australia

The November 2022 ISO 20022 implementation date for the Australian High Value Clearing System (HVCS) is timed to coincide with the implementation of CBPR+ in FINplus.

³ Fedwire Funds Services has announced their ISO 20022 migration date for March 10, 2025, while CHIPS will migrate in November 2023.

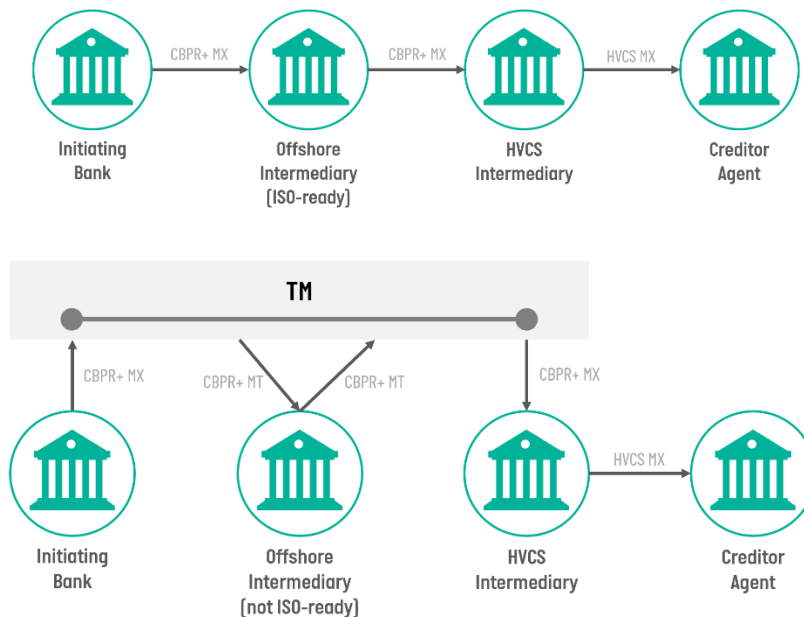
The Australian HVCS set-up allows for the optional use of structured data and enhanced content from Day 1 of coexistence, and, while there is no formal like for like phase, many Participants are likely to defer adoption of enhanced content, as is expected to be the case in many other markets.

The Australian HVCS implementation includes a coexistence phase where MT and MX will operate side by side. To avoid truncation challenges, all HVCS Participants must be ready and able to receive HVCS MX messages (including rich data) from November 2022. Further, all HVCS intermediaries must be ready and able to convert an inbound cross-border MX instruction to the HVCS MX equivalent, without truncation.

A significant proportion of HVCS traffic is originated overseas and, after November 2022, will arrive in CBPR+ format via FINplus. For this reason, HVCS messages are harmonized with CBPR+ wherever appropriate and to the greatest extent possible.

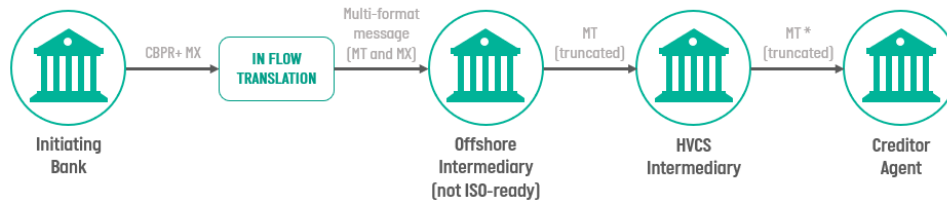
When an inbound cross-border instruction is received via an offshore intermediary that is able to send MX, Australian banks do not anticipate any end to end truncation issues due to the HVCS obligations in place.

1. *Flow with ISO 20022 Ready Offshore Intermediary and fully operational TM*



When an inbound cross-border instruction is received via an offshore intermediary that has used the in-flow translation and on forwarded an MT, truncation and loss of information can occur.

2. Offshore Intermediary Not ISO 20022 Ready and no TM



* HVCS Intermediaries would be expected to not pass on the domestic leg of the payment until they have received the truncated or missing information.

Australian Market Implications

In Australia, banks have a regulatory obligation to report on all cross-border transactions (IFTI-e reporting) where details of all parties, agents, and other information such as transaction date, amount, currency, remittance information, and purpose of payment need to be reported within ten (10) days of receiving the instruction.

The challenge for the Australian community is the scenario where an incoming cross border is identified to have truncated or missing information.

To comply with the regulatory requirements, the Australian community will be adopting measures to obtain complete information on all cross-border payments. Payments identified as having truncated or missing data will likely be stopped, and a request for information (RFI) will be sent to the previous agent with the requirement for response to be received within a specified timeframe.

If information is not provided within the required time the payment could be rejected as the Australian community will be expected to obtain truncated and/or missing data before releasing the payment into the domestic HVCS.

The handling of truncated or incomplete messages requires manual intervention, correspondents are reminded that these could lead to additional charges and delay in processing of the payments.

As these examples show manual intervention is needed and the presence of rich data elements may delay payments. So, if an RFI is received pertaining to rich data elements it is paramount to respond quickly and minimize any payment delay.