Deep Dive into the ISO 20022 Implementation Strategy for U.S. High-Value Payment Systems

Sibos Community Session
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Agenda

- Rationale for ISO 20022 adoption for U.S. high-value payment systems
- Industry engagement and alignment with market practice guidelines
- Deep dive into the ISO 20022 implementation strategy for U.S. high-value payment systems
- Lessons learned
- Update on ISO 20022 activities for U.S. low-value systems

The views expressed by Gina Russo are her own and do not necessarily represent the views of the Federal Reserve Bank of New York or any other part of the Federal Reserve System.
Rationale for ISO 20022 Adoption

- The Federal Reserve Banks (“Fed”) and The Clearing House Payments Company (“TCH”) will adopt the ISO 20022 payment messages for the Fedwire® Funds Service and CHIPS® wire transfer system, respectively.

- This effort is a strategic initiative to replace the proprietary message formats for the Fedwire Funds Service and the CHIPS wire transfer system with message formats based on a global standard that can improve payment processing efficiency and promote interoperability among high-value payment systems around the world.

- The ISO 20022 initiative also supports strategy 4 of the Federal Reserve’s Strategies for Improving the U.S. Payment System to achieve greater end-to-end efficiency for domestic and cross-border payments.
Industry Engagement

- The Fed and TCH have facilitated industry engagement on the detailed planning for their respective ISO 20022 implementations through a number of meetings with their Format Advisory Group, which is composed of global & regional banks.

- The Fed and TCH have contributed to SWIFT’s High-Value Payment Systems Plus (HVPS+) Task Force (composed of market infrastructures & banks) and its subgroups, including the interoperability subgroup.

- The Fed and TCH separately engaged SWIFT as a consultant to assist with detailed work (e.g., creating mapping spreadsheets, ISO 20022 usage guidelines) for their respective systems.

- The Fed has also established a work group of some Format Advisory Group members and software vendors to perform an in-depth review of the Fedwire Funds Service message format documents relating to the ISO 20022 implementation.
Alignment with Market Practice Guidelines

The Fed & TCH intend to align the end state of their respective ISO 20022 implementations with the HVPS+ market practice guidelines, which includes enhancements (e.g., additional parties, new fields, increased character lengths).

However, the benefits of the enhancements are dependent on global interoperability (i.e., ISO 20022 messages being enabled in the correspondent banking space, as well as other jurisdictions and other funds-transfer systems).

Source: SWIFT
## ISO 20022 Implementation Scope

<table>
<thead>
<tr>
<th>Fedwire Funds Service</th>
<th>CHIPS</th>
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<tbody>
<tr>
<td>• All inputs and outputs of the Fedwire Funds Service (i.e., all message types,</td>
<td>• Bank and customer payment messages and related messages, liquidity</td>
</tr>
<tr>
<td>inquiries, &amp; reports)</td>
<td>messages, and unique CHIPS processing messages</td>
</tr>
<tr>
<td>• Optional enhancements based on industry feedback</td>
<td>• CHIPS funding and settlement messages for the Fedwire Funds Service</td>
</tr>
<tr>
<td></td>
<td>• Optional enhancements based on industry feedback (pending industry</td>
</tr>
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<td></td>
<td>solution for cross-border interoperability)</td>
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ISO 20022 Implementation Strategy

- The Fed will adopt the ISO 20022 messages in three phases.
- TCH is currently evaluating its ISO 20022 migration strategy.
- In determining their respective migration strategies, the Fed & TCH will consider efficiencies for their common customers; based on these considerations, it is their intent to complete their respective ISO 20022 migrations by the same end date.
- The Fed and TCH intend to sunset their legacy propriety formats once their ISO 20022 implementations are complete.
## ISO 20022 Implementation Approach

<table>
<thead>
<tr>
<th>Legacy format changes</th>
<th>Fedwire Funds Service</th>
<th>CHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Big bang” implementation to align with SWIFT MT changes to originator and beneficiary fields and to prepare for and simplify the migration to the ISO 20022 messages.</td>
<td>“Big bang” implementation to align with SWIFT MT changes to originator and beneficiary fields</td>
<td>Implement the Fedwire Funds Service FAIM 4.0 changes to accommodate the CHIPS Settlement Fedwire interface.</td>
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<tr>
<td>ISO 20022 like for like</td>
<td>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.</td>
<td>Migrate CHIPS participants to ISO 20022 messages that have fields and character lengths that are comparable to the CHIPS legacy format.</td>
</tr>
<tr>
<td></td>
<td>The Fedwire Funds Service will translate the legacy format to ISO 20022 and vice versa when necessary to accommodate Fedwire senders and receivers that are not using the same format.</td>
<td>Make improvements to CHIPS processing logic.</td>
</tr>
<tr>
<td></td>
<td>The Fed will sunset legacy format at end of this phase.</td>
<td>Make improvements to CHIPS processing logic.</td>
</tr>
</tbody>
</table>

| ISO 20022 enhancements                  | “Big bang” implementation to enable participants to send optional enhancements.                                                                                                                                  | TCH will sunset legacy format at end of this phase.                                                                                                                                                  | TCH will sunset legacy format at end of this phase.                                                                                                                                                  |
|                                            | Note: For CHIPS, the activation of the enhancements is dependent on industry solution for cross-border interoperability.                                                                                           |                                                                                                                                                                                                     | TCH will sunset legacy format at end of this phase.                                                                                                                                                  |
ISO 20022 Implementation to be Completed by the end of 2023

- **Legacy Changes**: November 23, 2020
- **ISO like for like**
  - Fedwire (18 months - begins in Q1 2022)
  - CHIPS (TBD)
- **Fedwire Stability Period**: (3 months)
- **ISO Enhancements**: Q4 2023

Timeline:
- 2020
- 2022
- 2023
ISO 20022 Documentation

- The Fed and TCH will publish documentation to support the ISO 20022 implementation on SWIFT’s MyStandards browser-based application in private groups open to their customers.

Fedwire Funds Service

- November 2017 (Final)
- December 2017 (Draft)
- June 2018 (Final)
- Same as Phase 2

CHIPS

- Leverage current documentation distribution methodology
- December 2017 (Draft)
- TBD 2018 (Final)
- TBD

Legacy Format Changes

ISO 20022 like for like

ISO 20022 enhancements
Fedwire Funds Service ISO 20022 Information

For the latest Fed-related ISO 20022 information updates, including upcoming education sessions, see:

- The Fed’s Resource Center for Adoption of ISO 20022 on the FedPayments Improvement website:
  - [https://fedpaymentsimprovement.org/payments-efficiency/iso-20022/](https://fedpaymentsimprovement.org/payments-efficiency/iso-20022/)
  - The resource center also includes information on ACH efforts related to ISO 20022.
Lessons Learned

- Allocate dedicated resources
- Assess legal implications
- Leverage existing market practices
- MyStandards Administration
- Frequent industry engagement
ISO 20022 Status for U.S. Low-Value Systems

- ACH integration tools are currently available in the marketplace to assist financial institutions that support corporates that are using ISO 20022 messages in their back-office systems.

  **NACHA XML-ACH Remittance Opt-In Program**
  Deployed in 2013 & allows corporates to exchange ISO 20022-formatted remittance messages for B2B transactions.

  **NACHA ISO 20022 Mapping Guide**
  Deployed in 2015 & enables financial institutions to map the ISO 20022 format to the NACHA ACH format for all standard entry class codes.

- The U.S. ACH operators – the Federal Reserve Banks and TCH – have focused their ISO 20022-related efforts on integration, education, awareness, and collaboration where doing so would be in the best interests of their customers for the FedACH® and EPN® services, respectively.
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