



Preparing for the future: Securities market practices, ISO 20022 and exploring new opportunities for process automation

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XML



- **EX**tensible **M**arkup **L**anguage
- A markup language similar to HTML but employing tags that indicate the structure in addition to the display specifications of the coded data
- The syntax is divided between ‘markup’ and ‘content’.
- XML’s design goals emphasise simplicity, generality, and usability over the internet
- Already the default language for most office-productivity tools, including Microsoft Office.

ISO20022



- Convergence: *moving towards syntax (language) uniformity*
- Coexistence: *allowing different syntax to be used at the same time*
- Interoperability: *same business elements/model can be communicated using different syntax*
- Reverse engineering: *ensuring that ISO20022 covers all the functions of the previous ISO*

Convergence and ISO 20022 adoption



What is driving the move to ISO 20022?

- New initiatives
 - Global harmonisation
 - Giovannini and SEPA in Europe
 - Market infrastructures
 - Automation in the 'funds' market
- New players
 - Corporates, fund managers
- New technology
 - XML, Service Oriented Architecture (SOA), web services



FIN message categories



- Category 1 – Customer Payments & Cheques (18 messages)
- Category 2 – Financial Institution Transfers (17 messages)
- Category 3 – Treasury Markets – Foreign Exchange, Money Markets & Derivatives (27 messages)
- Category 4 – Collections & Cash Letters (18 messages)
- Category 5 – Securities (67 messages)
- Category 6 – Treasury Markets – Metals & Syndications (20 messages)
- Category 7 – Documentary Credits & Guarantees (29 messages)
- Category 8 – Travellers Cheques (18 messages)
- Category 9 – Cash Management & Customer Status (29 messages)
- Category 0 – System Messages (44 messages)

5
ISO
15022

53
ISO
15022

ISO 20022 messages



Securities, FX and Derivatives

- Investment Funds
 - Securities Trade (30) and Settlement (16)
 - Reference Data (3) and Acct Mgmt (5)
 - Securities Management (7)
 - Cash Forecast (6)
- Other Securities
 - Securities Transaction Regulatory Reporting (4)
 - Proxy Voting (8)
 - Issuers' Agents Communication (22)
- Foreign exchange and OTC Derivatives
 - Non-Deliverable Forwards (7)
 - Currency Options (4)
 - Generic (4)

116 messages

Current ISO 20022 development pipeline for Securities

> 150 messages

- Securities
 - Pre-trade/Trade (FIX/SWIFT) – 29 messages
 - Funds Processing Passport (SWIFT) – 2 messages
 - Settlement and Reconciliation (SWIFT) – 29 messages
 - Corporate Actions (SWIFT) – 13 messages
 - Post-trade (Omgeo/SWIFT) – 12 messages
 - Market Claims/Transformations (Euroclear) – 14 messages
 - Securities Registration and Holder ID (Euroclear) – 14 messages
 - Securities Issuance (Euroclear) – 27 messages
 - Total Portfolio Valuation Statement (ISITC) – 6 messages
 - Alternative Funds (SWIFT) – 8 messages
 - Settlement Instruction Modification & Allegement rejection (SWIFT) – 5 messages
 - Securities Static Reference Data (SWIFT) – 15 messages
 - T2S (4CB) – number of messages not yet known

ISO 20022 (MX) adoption drivers



- Large infrastructure projects (some current users, some planning adoption and some considering adoption)
 - Target2 Securities
 - Euroclear (single platform)
 - JASDEC post-trade and matching (PSMS)
 - Zengin (Japan, clears retail credit transfers)
 - DTCC
- Regulation and self-regulation
 - Giovannini barrier 1
- Regional drivers
 - China, Japan, Brazil, Russia, Switzerland, Germany, South Africa

ISO 20022 (MX) adoption drivers

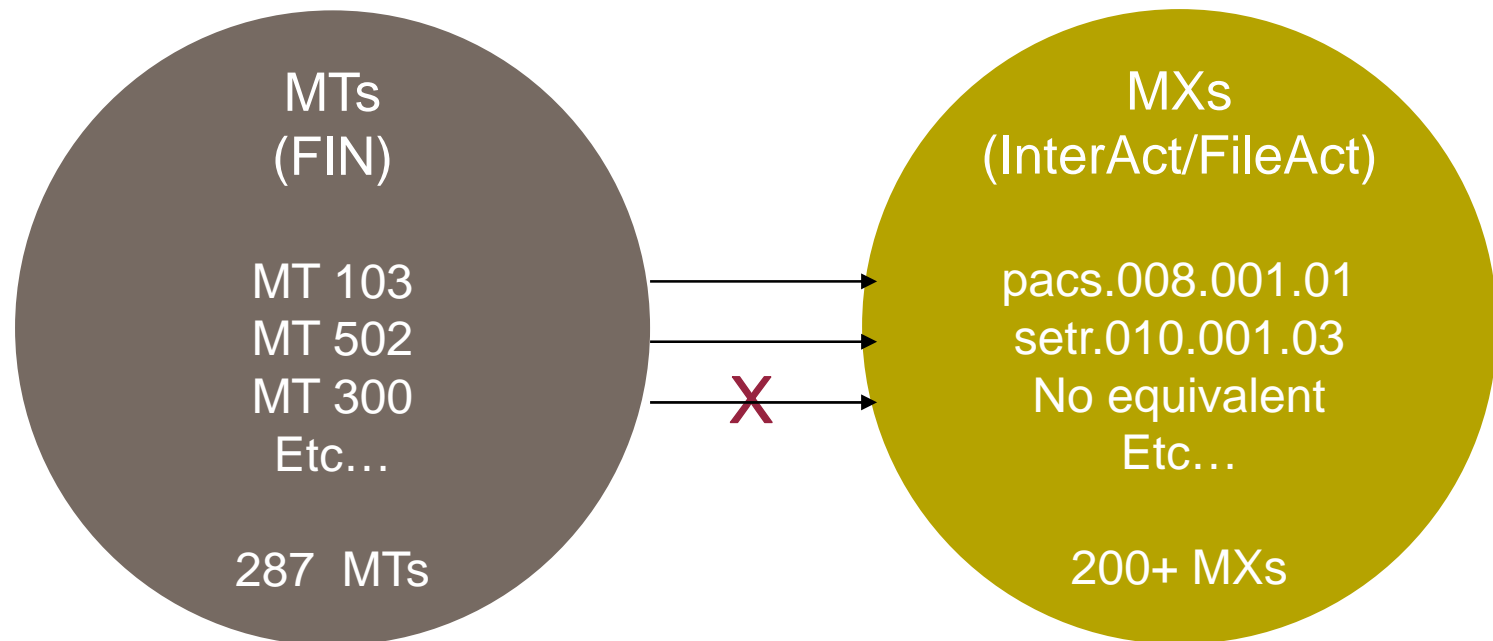


- Customer-driven initiatives
 - Custodian and Investment Manager ‘Closed User Group’ already established in US
 - Corporates
 - Funds
- Other standardisers
 - Investment roadmap (FIX, FpML, ISITC)
 - XBRL: eXtensible Business Reporting Language (for scanning and tagging information in messages, for reporting)

A satellite view of Earth from space, showing a vast expanse of blue oceans and white clouds. A large landmass, likely South America, is visible in the lower right quadrant, with a prominent river system (the Amazon) flowing through it. The curvature of the Earth is visible at the top of the frame.

Coexistence framework and approach

Coexistence – what is it?



Coexistence – current status



- The MTs are not going away anytime soon
- Coexistence is likely to be made 'easier'
- A coexistence implementation plan was started in 2007, but community feedback indicated it was too early for consensus on milestones and dates for many MTs
- Large industry players such as SWIFT, Euroclear, Omgeo remain fully committed to ISO 20022 for all standards development



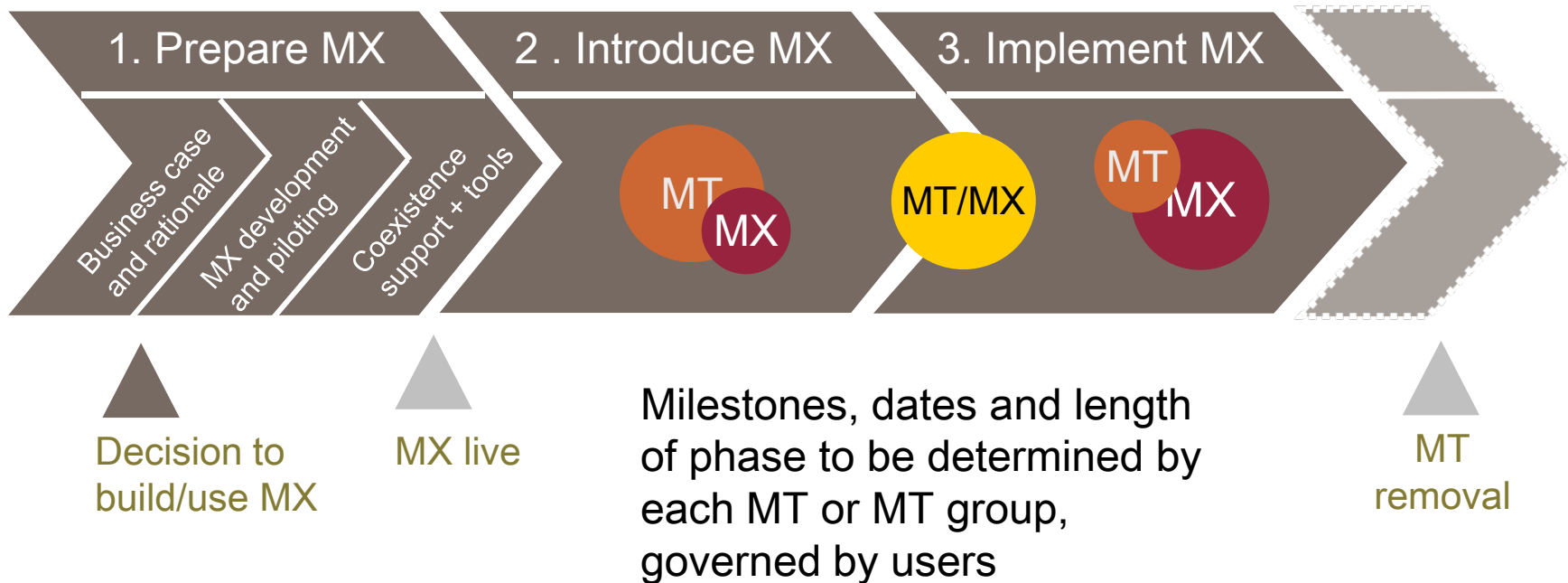
Drivers for message development



- New business areas – **MX**
 - Trade Services Utility (TSU)
- MTs not adequate – **MX to replace MT**
 - Proxy voting, Funds, Exceptions & Investigations
- Regulatory or infrastructure driver – **Both MX and MT**
 - Payment infrastructures, SEPA, T2S
- No business case for MX development – **MT, for now**
 - Precious and base metals

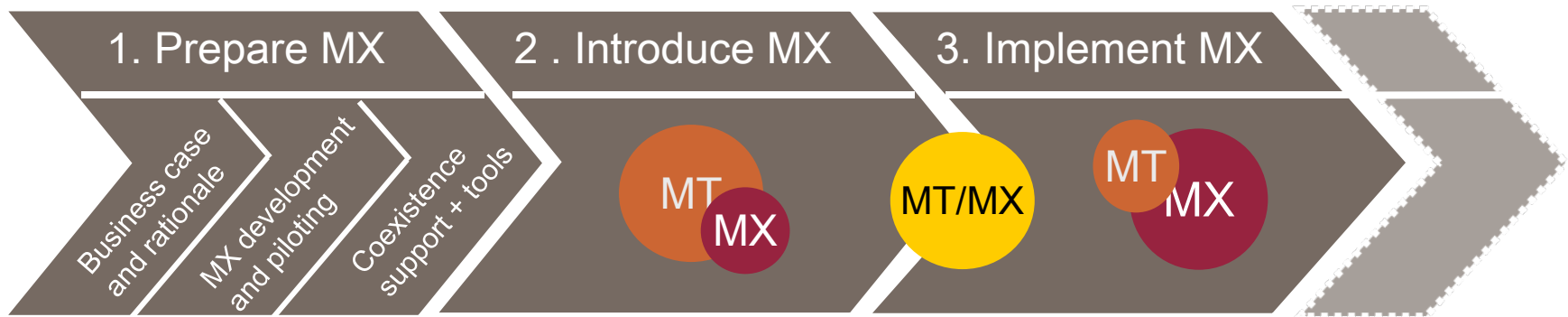


Overall coexistence framework



Sibos Standards Forum 2009: A show of hands from the audience about whether a mandated migration should happen in 10-15 years raised up some hands, but none were in favour for a migration within two years.

Coexistence – current approach



- Strengthen the fundamentals of ISO 20022 by re-focusing on the 'core' (models, repository, dictionary)
- Reinforce toolkit of products that support implementation, mapping and translation

- Let the market 'catch-up' and allow each business area and community to move at its own pace, while providing guidance on syntax

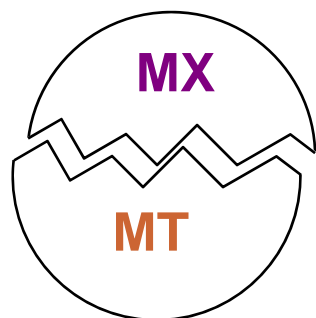
What does this mean for the core securities (ISO 15022) messages?

- Develop ISO 20022 syntax versions of the core clearing and settlement messages
- Ensure mapping between ISO 15022 and ISO 20022
- Limit ISO 20022 functionality to that which is available in ISO 15022 and synchronise maintenance
- Provide solution to support coexistence, including translation and directory



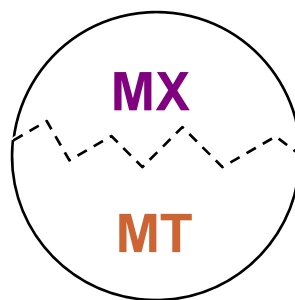
Enabling interoperability

From coexistence to interoperability



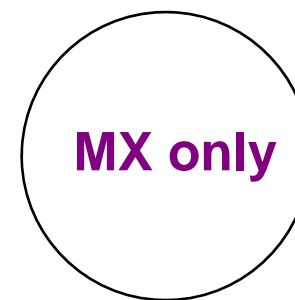
Coexistence

**Where we
are now**



Interoperability

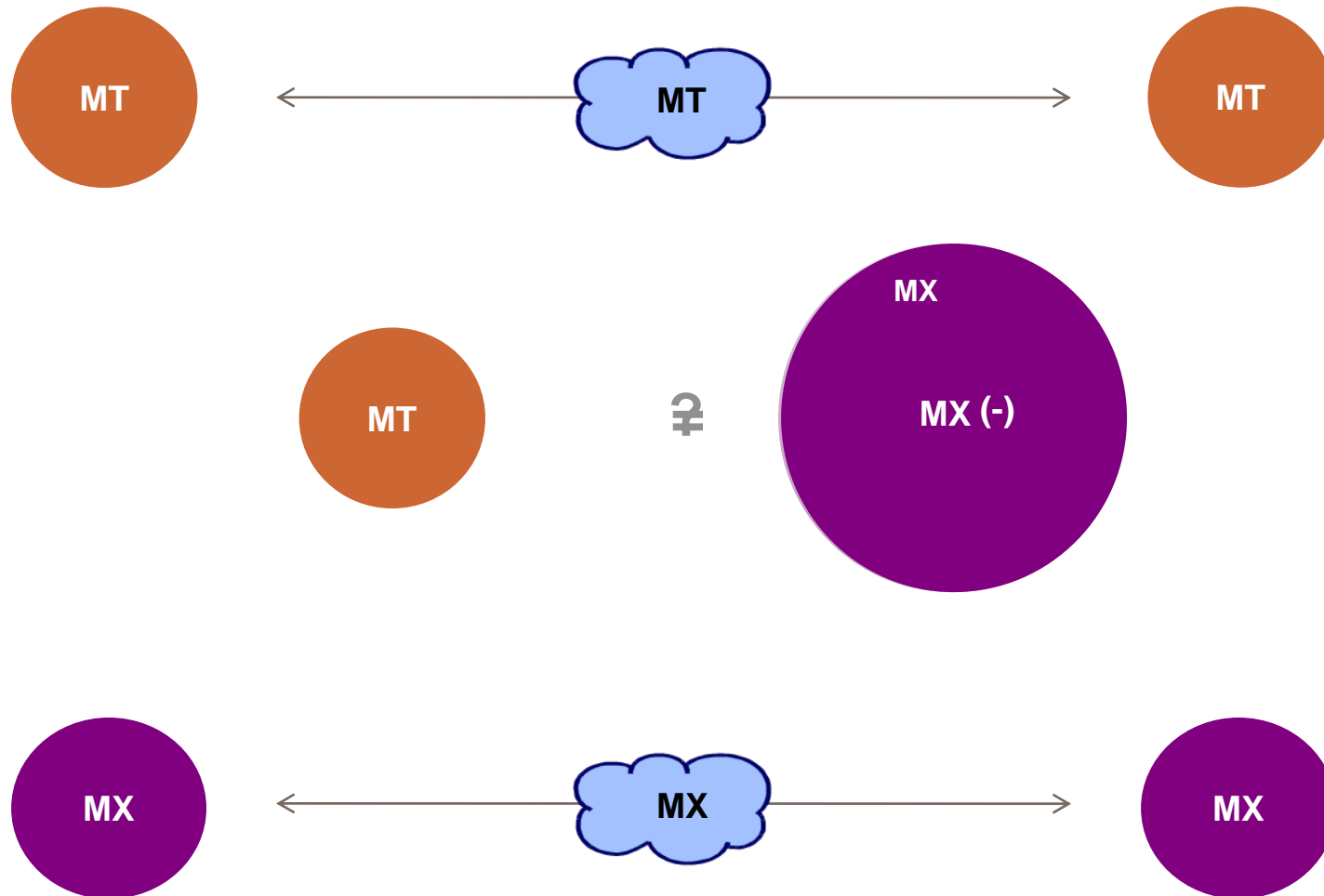
**What's
next**



Migration

**Where we
are going**

Interoperability landscape

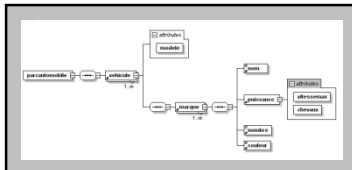




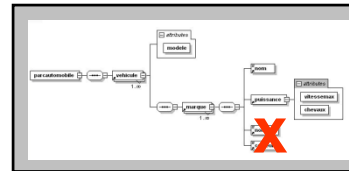
Interoperability landscape: The formal subset



Unrestricted 20022 message definition



Restricted 20022 message definition



Coexistence format restrictions

ISO 20022 Char Set	MT limited to character set E, V and Z. SES to limit data in cross border and any in local communication (single rule) Example: MT 104 to add new character sets to MT proposed to ISO 20022.
Identification and references	MT is 104 SES is MacOSText Example: Previously, alignment with UNCEFACT and EDIFACT All message and transaction sets in ISO 20022 messages are therefore MacOSText. Post SMPG or SMPG coexistence scheme field extended proposed to ISO 20022 comes along
Amounts	MT 104, that is, 14 numbers and a comma, 16 initiators in fractional digits SES 10 digits, that is, 10 numbers and a comma, 3 fractional digits max. Example: Proposed CR for AP and other currencies for which 104 is not enough Incompatibility with other securities ISO 20022 messages generally, bank trade, interest rates, etc.
Quantities (DiscountFactor)	MT 104, that is, 14 numbers and a comma, 16 initiators in fractional digits SES 10 digits, that is, 10 numbers and a comma, 3 fractional digits max. Example: Incompatibility with other securities ISO 20022 messages.
Rate (DiscountRate and PercentageRate)	MT 104, that is, 14 numbers and a comma, 16 initiators in fractional digits. SES 11 digits, that is, 11 numbers and a comma, 10 fractional digits max. Example: Incompatibility with other securities ISO 20022 messages.
Data Source Scheme mechanism	MT 404234 issuer and scheme name (initiated by SWIFT as [sic]) SES, see field 404234 for issuer and scheme name Example: In line with ISO 20022 proprietary scheme mechanism

Is a subset of

Is formalized in

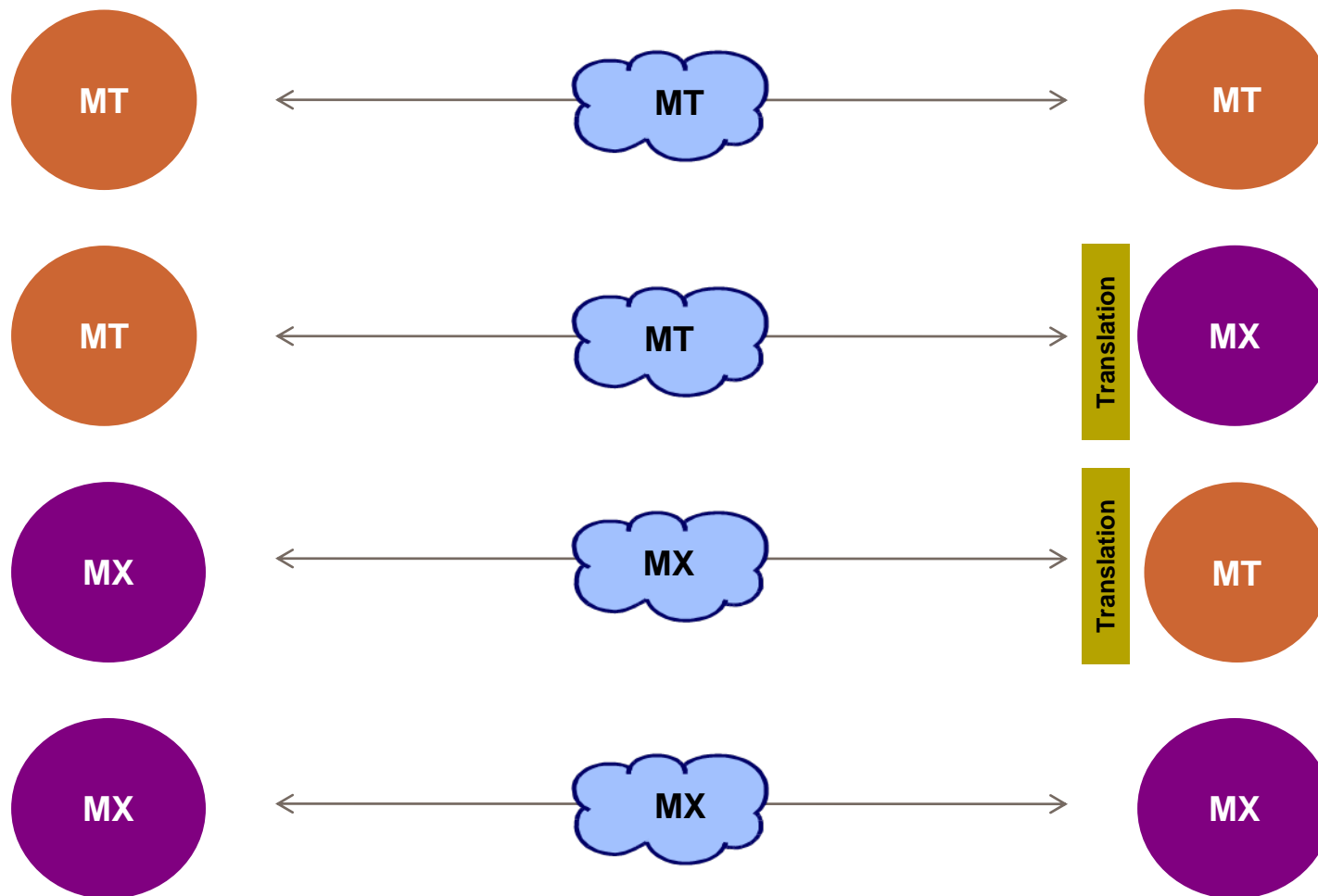
Conforms to

Conforms to

Conforms to



Interoperability landscape





ISO 15022 Reverse Engineering

Core and Non-core Category 5 MT's



Business area	Core MT's	Non-core MT's
Settlement	508, 524, 530, 540-549, 578	
Reconciliation	535-538, 586	575
Corporate actions	564-568	
Tri-party collateral	527, 558, 569	
Bi-party collateral		503-507
Depository		587-589
Registration		500, 501, 510
TIC		502, 509, 513-515, 517, 518, 528, 529
Others (ref data, lending ..)		516, 519, 520-522, 526, 527, 559, 582

Resulting S&R ISO 20022 messages



- 18 ISO 15022 messages effectively covering +- 90 instruction type/activity combinations
- 29 ISO 20022 messages
 - MT 540-3 → 1 Settlement Instruction
 - Listed derivatives and securities financing functionalities in dedicated messages
 - Replacement messages (will be done outside the RE under a different Business Justification)



Resulting CA ISO 20022 messages



- 5 ISO 15022 messages effectively covering +- 20 instruction type/activity combinations
- 13 ISO 20022 messages
 - Slight change in the reminder process:
 - Reminder of uninstructed balances via CA Reminder Advice
 - Reminder of event details via CA Notification (Reminder)
 - One cancellation request and one cancellation advice
 - Status reporting per process → 4 status messages
 - Creation of a CA Movement Preliminary Advice message
 - Creation of a CA Instruction Statement Report message

New Opportunities



- Hedge Fund Messaging
 - Subject to approval, will go to pilot early 2010
- Funds Processing Passport
 - In the pipeline, to report characteristics of a fund such as cutoff time and fund manager details
- Total Portfolio Valuation
 - Fund price and breakdown of NAV
- Post-trade matching
 - To confirm allocation etc. Req'd by Omgeo, DTCC, JASDEC, FIX
- Carbon Trading
 - Demand is emerging. Can standards and market practices finally save the world?

When the SWIFT Standards team enquired what they should do next to support the community, these were the reactions of the audience. SWIFT should:



- Help the community define the business case for coexistence and migration.
- Continue to develop technical tools for implementation.
- Draft guidelines for coexistence.
- Increase its presence in Asia.