

The ISO 20022 Challenges

ISO 20022: Complexity Meets Opportunity

While ISO 20022 brings several benefits, such as improved interoperability and richer data exchange, it also presents some challenges and problems.

1 Implementation Complexity:

Adopting ISO 20022 can be complex and costly, especially for organizations with legacy systems which requires costly upgrades, workarounds and significant changes to existing infrastructure, including software, databases, and business processes.

2 Data Mapping and Translation:

ISO 20022 messages (MX) can be more complex than older formats like SWIFT FIN (MT) messages. This complexity can lead to challenges in mapping and translating data between different message formats, potentially resulting in errors and data loss during the conversion process. Aquila can show how the data was mapped between the MT/MX messages and highlight any data truncation issues that can initiate the creation of incidents.

3 Customization and Variations:

Although ISO 20022 defines a common standard, different organizations and industries may implement it with variations and customizations. These variations can hinder interoperability and require additional effort to ensure compatibility between systems.

4 Data Quality:

ISO 20022 encourages the inclusion of more detailed and structured data in messages. Ensuring the accuracy and completeness of this data can be a challenge, and data quality issues can lead to processing errors and reconciliation problems. Aquila's counterparties database for institutions and individuals can be used to improve the quality of the MX messages for any of the following data elements.

Institutions

- Name
- Unstructured addresses
- Structured addresses
 - _ Department
 - _ Sub-Department
 - _ Street Name
 - _ Building Number
 - _ Building Name
 - _ Floor
 - _ Post Box
 - _ Room
 - _ Post Code
 - _ Town Name
 - _ Town location Name
 - _ District
 - _ Country Sub Division
- BIC codes
- Local Entity Identifiers (LEI) codes
- Distinguished Names (DN)
- Clearing codes
- Clearing system
- Account numbers/IBANs

Individuals

- Name
 - _ Title (e.g. Mr, Mrs, Dr etc.)
 - _ First name
 - _ Middle name
 - _ Last name
- Date of birth
- Province of birth
- City of birth
- Country of birth
- Nationality
- City of residence
- Country of residence
- Identification
(e.g. Passport number, National ID number etc.)
- Identification issuer
- Account numbers/IBANs
- Unstructured addresses
- Structured addresses
 - _ Department
 - _ Sub-Department
 - _ Street Name
 - _ Building Number
 - _ Building Name
 - _ Floor
 - _ Post Box
 - _ Room
 - _ Post Code
 - _ Town Name
 - _ Town location Name
 - _ District
 - _ Country Sub Division
- Contact Information
 - _ Work Phone
 - _ Home Phone
 - _ Mobile Phone
 - _ Fax
 - _ eMail

5 Regulatory Compliance:

Adhering to ISO 20022 standards may require organisations to meet specific regulatory requirements, which can vary by jurisdiction and schemes such as CBPR+, SEPA Instant etc. Staying compliant with these regulations can be a complex and ongoing task.

6 Costs:

Implementing ISO 20022 can incur significant upfront costs for organisations, including technology upgrades, staff training, and compliance efforts. The return on investment may not be immediately apparent, making it a challenging decision for some.

7 Transition Period:

During the transition from older messaging standards to ISO 20022, organizations may need to support multiple formats simultaneously. This can increase complexity and require careful management.

Despite these challenges, the long-term benefits of ISO 20022, include improved data quality, enhanced automation, and better support for emerging payment and reporting requirements.

Successful adoption of the standard will require careful planning, investment, and ongoing commitment to address the associated problems.



The ISO 20022 Solution.

The Aquila solution provides a highly scalable and configurable infrastructure to manage any data types including SWIFT FIN and ISO 20022 messages.

Aquila can assist organisations by:

- Enabling ISO 20022 adoption using a framework controlling message formatting that can be initiated automatically or manually.
- Allowing the ISO 20022 granular information required for institutions and individuals to be stored within its own counterparties database improving data quality of MX messages.
- Integrating native ISO 20022 messages with internal or 3rd party products (e.g. sanctions checking and AML).
- Support for Swift Essentials API's will improve data quality and help to reduce risk by allowing information about counterparties and message content to be validated prior to transmission to Swift. This allows any unknown BIC's, clearing codes, Distinguished Names (DN's) or Legal Entity Identifiers (LEI's) to be resolved and used to improve message quality.
- Automating processing to validate accounts, check availability of funds, book accounting entries and create outward settlement messages in either MT or MX format. For payments, automation can include checking that cover has been received, generating requests for charges from correspondents and ensuring SWIFT gpi compliance.
- Controlling management of exceptions.
- Providing integrated solutions that are ISO 20022 compliant for:
 - _ Account Reconciliations
 - _ Treasury Message Matching
 - _ Securities Reconciliations
 - _ Securities Matching
- Maintaining integrity of existing internal or 3rd party products by transforming MT to MX messages and vice versa.

The following table lists some of the popular transformations between MT and MX:

(Please note others are available)

From MT	To MX	From MX	To MT
MT101	MT101	pain.001.001.xx	MT101
MT103 STP	pain.008.001.xx	pacs.008.001.xx	MT103 Core
MT103 Core	pain.008.001.xx	pacs.009.001.xx	MT202
MT202	pain.009.001.xx	pacs.009.001.xx	MT202 COV
MT202 COV	pain.009.001.xx	pacs.009.001.xx	MT202
MT900	camt.054.001.xx	camt.054.001.xx	MT900
MT910	camt.054.001.xx	camt.054.001.xx	MT910
MT940	camt.053.001.xx	camt.053.001.xx	MT940
MT941	camt.052.001.xx	camt.052.001.xx	MT942
MT942	camt.052.001.xx	camt.053.001.xx	camt.052.001.xx
MT950	camt.053.001.xx		



Transition With Ease.

Expertly placed to support your journey

About Aqua Global

Aqua Global was founded in 1983. For over 43 years Aqua have been assisting FI's to fully automate their transaction lifecycle by providing seamless, secure and robust message automation.

Headquartered in London with support hubs in Poland and global business partners, Aqua have supported clients in over 30 countries around the world.

Our solutions support real-time operations, regulatory compliance, and scalable automation. We focus on building long-term partnerships, tackling complex operational challenges, and providing reliable, high-performance systems that assist our clients every day.

For more information, visit

Web: www.aquaglobal.co.uk

LinkedIn: [@aquaglobal](https://www.linkedin.com/company/aquaglobal)

Centralised Orchestration

Message Management



ISO 20022 Processing



Payments



Treasury



Securities



Reconciliations



Matching



Incident Management



Cash & Liquidity Management

