Introduction to ISO 20022 – Universal financial industry message scheme
Agenda

- ISO 20022:
  - The value proposition
  - The standard
  - The actors
  - The registration process
  - The repository
- ISO 20022 registration platform
- Interoperability within the financial industry
The ISO 20022 value proposition (1/5)

Objective
To enable communication interoperability between financial institutions, their market infrastructures and their end-user communities

Major obstacle
Numerous overlapping standardization initiatives looking at XML financial messages:
- MDDL, FIX, FinXML, VRXML, RIXML, XBRL, FpML, IFX, TWIST,
- RosettaNet, OAGi, ACORD, etc.
The ISO 20022 value proposition (2/5)

Proposed solution

A single standardisation approach (methodology, process, repository) to be used by all financial standards initiatives

ISO 20022
Convergence into ONE standard is the long term objective...

... but in the interim several standards need to coexist to enable quick response to competitive pressures and regulatory demands.
The ISO 20022 value proposition (4/5)

Growth adds exponential complexity and expense…

Without common building blocks:
- Point-to-point connection
- Data is mapped directly from one application to another
- Costly, unsalable and difficult to implement and maintain
- Process, routing, rules logic needs to be coded to specific message types

42 interfaces = n * (n-1)

Source: John Mersberg, IBM Corporation
The ISO 20022 value proposition (5/5)

Standardized implementation reduces cost, time to effect change and improves overall performance...

ISO aims at long term convergence, while facilitating short term coexistence...

Canonical message model =
- True process integration
- Reduced brittleness, faster to respond to change
- Shared message services – single/shared parser, message independent rules engine, etc.
- Unified monitoring / audit trail
All institutions have their own sets of data objects...

ISO standardizes common data objects...

...and groups them into ‘syntax-neutral’ message models, which...

...can be ‘transformed’ in message formats in the desired syntax.
The ISO 20022 recipe
Main ingredients (1/2)

- Modelling-based standards development
  - Syntax-independent business standard
  - Validated by the industry
- Syntax-specific design rules for XML and ASN.1
  - Predictable and ‘automatable’
  - Protect standard from technology evolution
- Reverse engineering approach
  - Protect industry investment and ease interoperability
  - Prepare for future migration
The ISO 20022 recipe
Main ingredients (2/2)

- Development / registration process
  - Clearly identified activities and roles
  - Business experts and future users involved upfront
  - Technical experts involved when required
- Repository on the ISO 20022 website
  - Business Process Catalogue & Data Dictionary
  - Outside of official standard (maintained by registration bodies)

www.iso20022.org
The eight parts of ISO 20022

Part 1: Metamodel
Part 2: UML profile
Part 3: Modelling
Part 4: XML schema generation
Part 5: Reverse engineering
Part 6: Message transport characteristics
Part 7: Registration
Part 8: ASN.1 generation

Copies can be obtained from www.iso.org
ISO 20022: The actors (1/2)

- Registration Management Group, RMG
  - Approve business justifications for new message standards
  - Approve new member entities
  - Create Standard Evaluation Groups (SEGs)
- Standards Evaluation Groups, SEGs
  - Represent users in specific financial areas
  - Validate new candidate messages and change requests
ISO 20022: The actors (2/2)

- Registration Authority, RA
  - Ensure compliance
  - Maintain and publish ISO 20022 Repository
- Technical Support Group, TSG
  - Assist RMG, SEGs, RA and submitting organisations
ISO 20022

The registration process (1/2)

1. Submitting organisation
2. Business justification
3. RMG
4. Project approval and allocation to a SEG
5. Development and provisional registration
6. Business validation
7. Official registration and publication
8. Optional pilot testing or first implementers

Candidate ISO 20022 messages
ISO 20022 messages
ISO 20022 registration process (2/2)

Yearly maintenance process

**Timing**

- **By June 1**: Users introduce Change Requests to the RA
- **By July 7**: SEG screens Change Requests (CRs)
- **By August 21**: Submitting organisation prepares ‘Maintenance Change Request’ with each CR implementation
- **By October 1**: SEG approval/rejection
- **By December 1**: Development of candidate new versions
- **By February 1**: Provisional publication
- **By February - May**: Validation of new versions
- **Registration and publication**

**By June 1**: First implementers

Intro to ISO 20022
ISO 20022 - The Financial Repository

- Data Dictionary
  - Business Concepts
  - Message Concepts
  - Data Types

- Business Process Catalogue
  - Financial business process models
  - Financial business transactions, including messages
  - XML or ASN.1 message schemas
All institutions have their own sets of data objects and group them into ‘syntax-neutral’ message models, which can be ‘transformed’ in message formats in the desired syntax.

ISO standardizes common data objects... ...and groups them into ‘syntax-neutral’ message models, which...
ISO 20022 compliance at model level

- ISO 20022 Dictionary
- ISO 20022 message models
- physical message representation
- ISO 20022 ASN.1 syntax
- ISO 20022 XML syntax

Intro to ISO 20022
ISO 20022 compliance at model level

ISO 20022 Dictionary

ISO 20022 message models

physical message representation

ISO 20022 compliant using a domain specific syntax

Repository

Dictionary

Catalogue

Card payments

Payments settlement

other syntax

ISO 20022 syntax

ISO 20022 compliant

Intro to ISO 20022
Let us look at a concrete example from payments area: a customer may need to adapt to the format of the banks…
Interoperability in the customer-to-bank payment domain

- Customer A: IFX format
- Customer B: Proprietary format
- Customer C: SWIFT MT 101

...or banks may need to accept many formats...
Interoperability in the customer-to-bank payment domain

The reverse engineering produces a canonical ISO 20022 message model
Interoperability in the customer-to-bank payment domain

Adopting ISO 20022 facilitates convergence and co-existence
Additional information available from www.iso20022.org