

ISO 20022 in Plain English

An introduction to ISO 20022
Business Payments Coalition
February 2017

Authors:

- Rich Urban – President, IFX Forum
- Patti Ritter – Senior Payment Consultant, Federal Reserve Bank Minneapolis
- David Jackson – Senior Director Financial Services, Oracle
- Guy Berg – VP Payments, Standards and Outreach Group, Federal Reserve Bank Minneapolis

Business Payments Coalition 2017 Webinar Series
Overview of ISO 20022: A Business Framework
Discussion

Presentation Topics

1

What is ISO 20022?

2

What is ISO used for?

3

What are ISO 20022 messages?

4

How do messages flow?

7

What are payment messages used for?

5

ISO process and governance

6

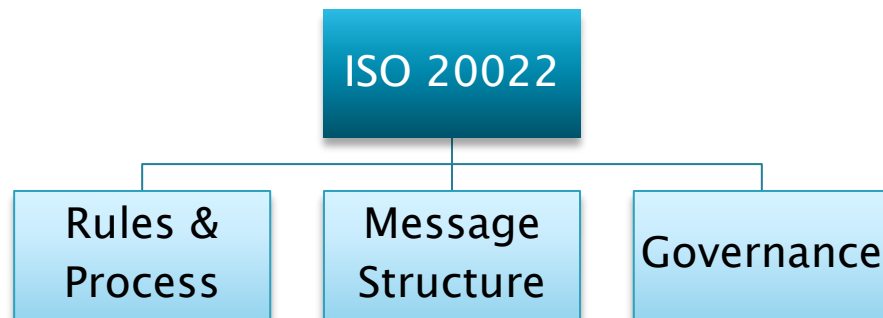
Adoption

7

Questions

What is ISO 20022?

- ▶ When people talk about ISO 20022, they are generally referring to one or more messages that ISO delivers
- ▶ Technically, ISO 20022 is the standard that provides the rules for how to develop the messages and the documentation of the messages
- ▶ The output of ISO 20022 work is the message definitions and formats, which is what we are here to talk about today

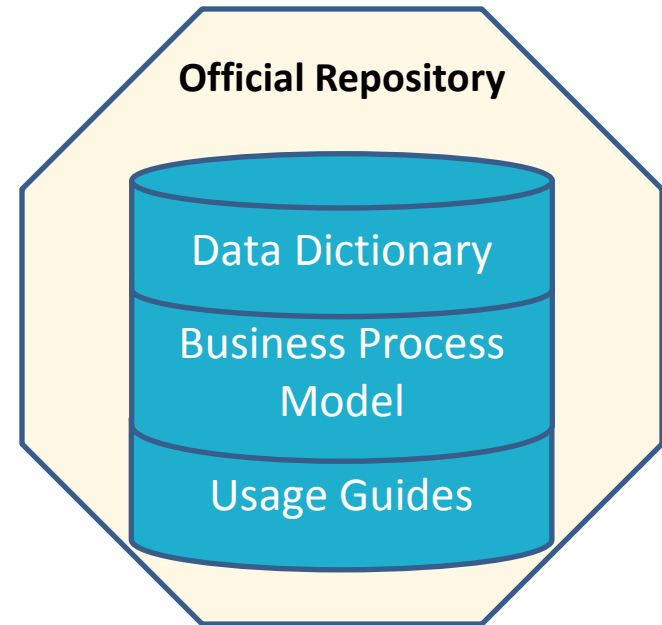


ISO 20022 Standard Messages

ISO 20022 is a
Repository of
Standard Financial
Messages

Each message set has a Message
Definition Report (MDR)

The ISO Registration
Authority Administers the
Official Repository



ISO 20022 Messages Use XML

The XML syntax allows structure to identify specific message detail.

- One Benefit: This enables business application logic to key on specific data elements to facilitate **straight-through-processing**

The Fedwire® Funds Service message format contains 3 free-text address lines for each of the various party fields in the message.

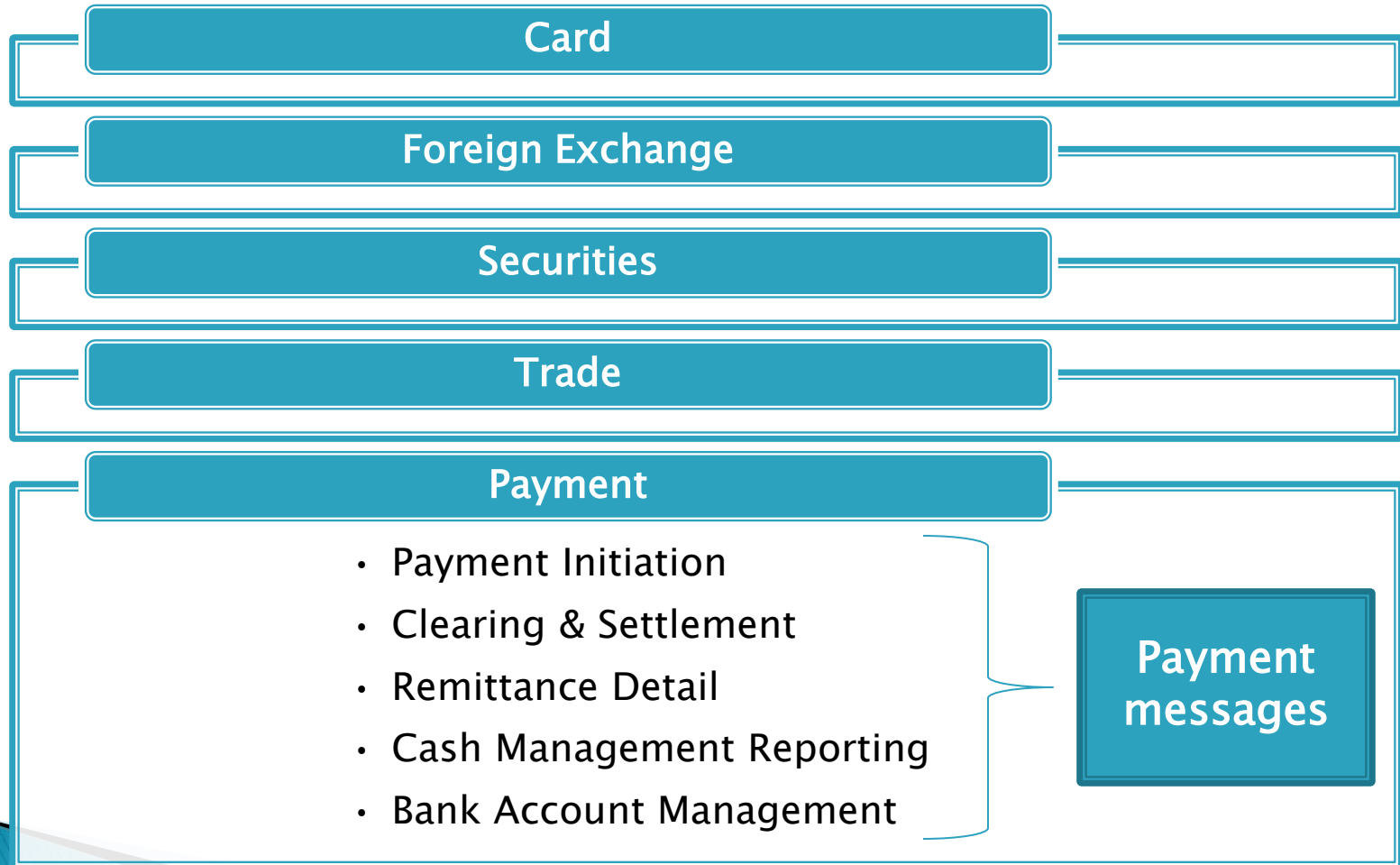
The ISO 20022 format contains discrete fields designed to contain specific address information.

Current Fedwire Funds Service format	ISO 20022 Format Implementation for Fedwire
Address Line 1 (up to 35 characters) Address Line 2 (up to 35 characters) Address Line 3 (up to 35 characters)	Postal Address <PstlAdr> <AdrTp> (4 characters) <Dept> (up to 70 characters) <SubDept> (up to 70 characters) <StrtNm> (up to 70 characters) <BldgNb> (up to 16 characters) <PstCd> (up to 16 characters) <TwnNm> (up to 35 characters) <CtrSubDvsn> (up to 35 characters) <Ctry> (2 characters)

- Easier to parse
- Easier to locate detailed information

What is ISO 20022 used for?

ISO 20022 is used for a variety of financial transactions



What are ISO payment messages?

Most Common Payment Message Types

Customer Payment Initiation

- Like an ACH payment with a full addenda (CTX)
- ▶ Has the payment instruction
 - ▶ Can have remittance information included in the message
 - ▶ Can be used for multiple payment types

Bank-to-Bank Settlement

Cash Management Reporting

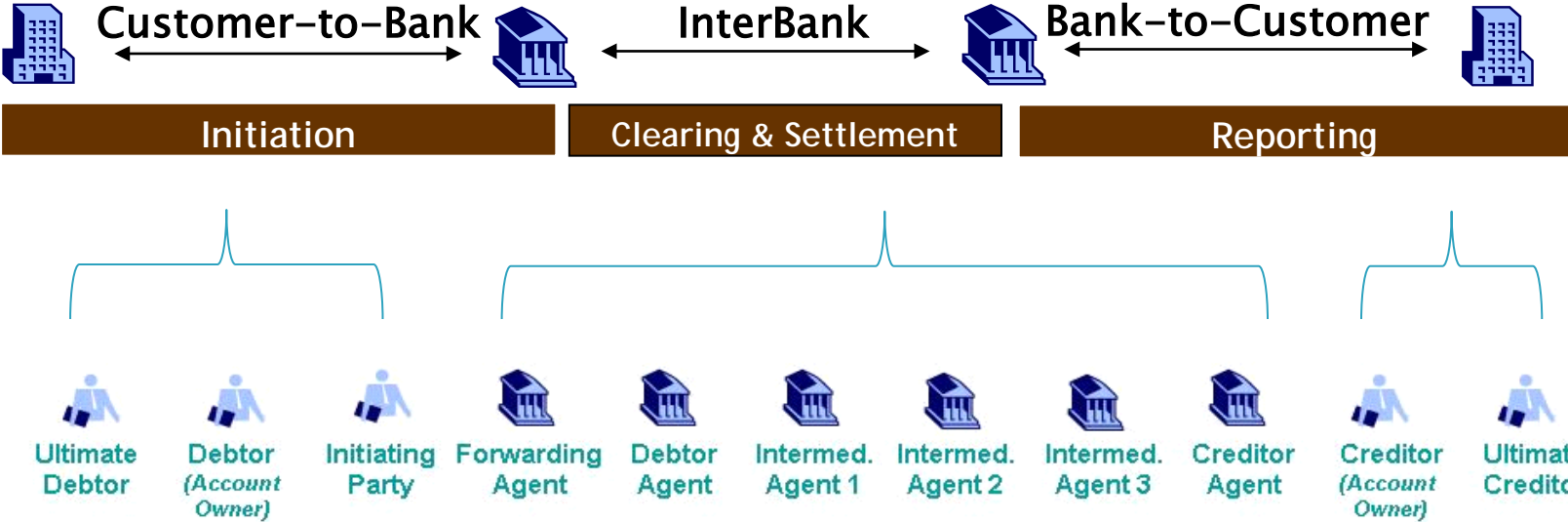
- Like a BAI file
- ▶ Has information about transactions and balances
 - ▶ Supports bank fee billing

Stand-alone remittance messages are available to support separate delivery of remittance detail, similar to the EDI remittance detail files shared between suppliers and buyers today.

Participants & Message Flow

ISO 20022 is Point-to-Point Messaging

At a high level, the payment flow involves 4 participants:



The ISO 20022 model recognizes that there can be many parties involved

What an ISO 20022 Message Name Looks Like

Domain	4 alpha	pain
Message ID	3 digits	001
Variant	3 digits	001
Version	2 digits	01

- ▶ ISO 20022 messages belong to a Business Domain
- ▶ Formal ISO 20022 message names are English phrases
- ▶ Allowance is made for regional variations
- ▶ ISO 20022 messages evolve to meet new requirements

Example Messages	Business Domain	Example Formal Message Names
pain.001.001.03	Payment Initiation	CustomerCreditTransferInitiationV03
pain.001.001.06	Payment Initiation	CustomerCreditTransferInitiationV06
camt.056.001.06	Cash Management	FItoFIPaymentCancelationRequesV06
pacs.008.001.06	Payment Clearing and Settling	FItoFICustomerCreditTransferV06
remt.001.001.03	Remittance	RemittanceAdviceV03

Payment Message Types Vary By the Role of the Participant

Multiple message types support different needs in the end-to-end process

Financial Services

- Cards
- FX
- **Payment**
- Securities
- Trade

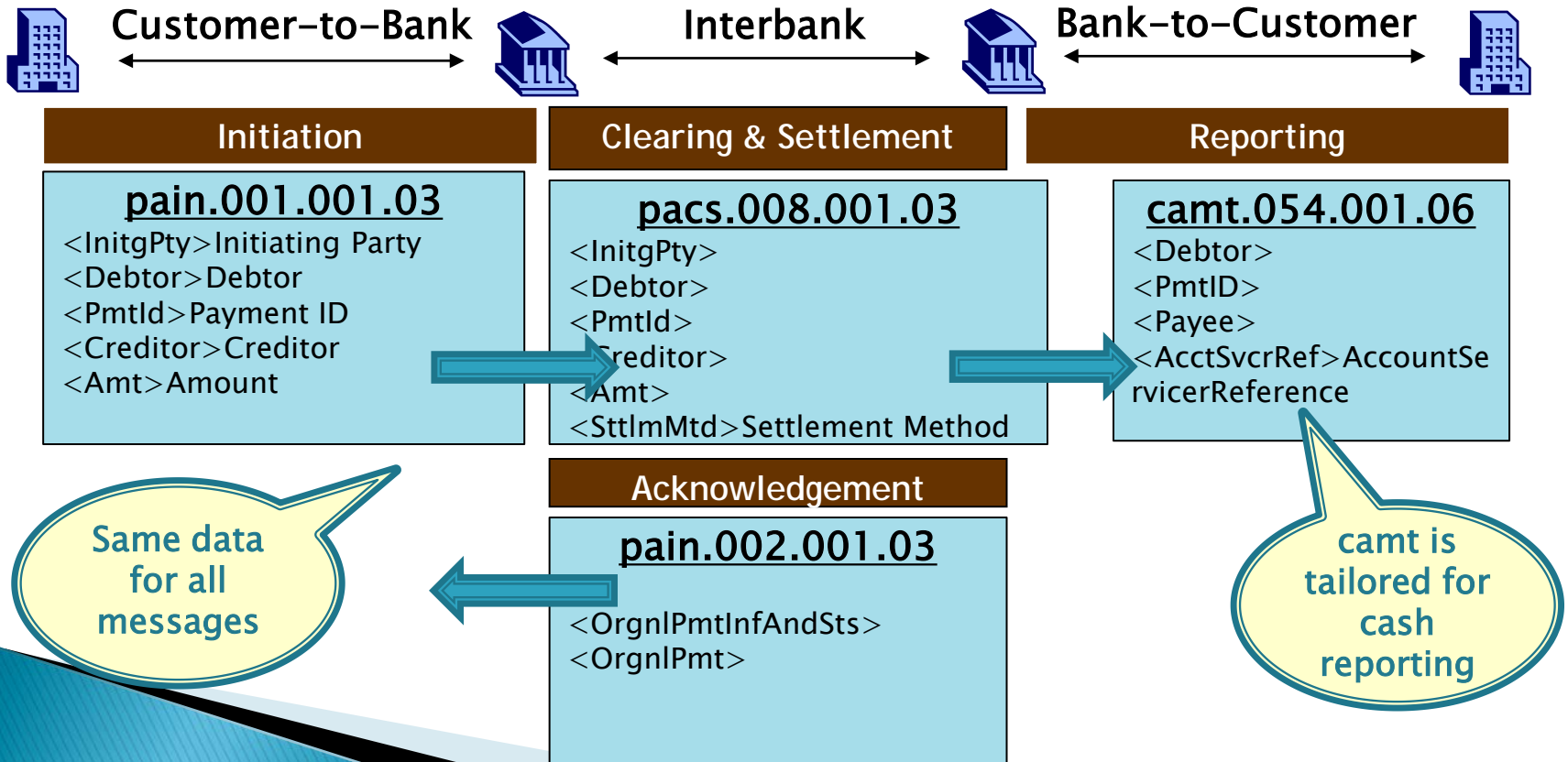
Payment Message (Examples*)

- **Account Management** [23 messages]
 - Change/Verify Account Identification [acmt.022]
 - Bank Account Opening [acmt.007]
- **Payments Initiation – Customer to Bank** [12 messages]
 - Payment Initiation [pain.001]
 - Mandate Initiation [pain.009]
 - Creditor Payment Activation Request [pain.013]
- **Payments Clearing and Settlement** [8 messages]
 - (both customer initiated as well as interbank related)
 - Credit Transfers [pacs.008]
 - Direct Debit [pacs.010]
- **Cash Management** [34 messages]
 - Bank-to-Customer Cash Management [camt.052]
 - Notification to Receive and Account Reporting Request [camt.057]
- **Remittances** [2 messages]
 - Remittance Advice [remt.001]
 - Remittance Location Advice [remt.002]

* Not all messages listed

Message Data Through the Flow Remains the Same

- **Message content** is retained as it moves to each participant and through different message types in the process flow
- Each message type is designed for the participant's **specific needs**





The ISO 20022 Governance Process


ISO 20022 Governance

- ISO 20022 is managed by the ISO Technical Committee 68 (TC68)
- The standard is managed by the Registration Management Group (RMG)
- There is a formal process for updates to the standard



ISO 20022 Message Development

Various organizations submit content proposals to the Registration Authority



Proposals are evaluated Monthly by Standards Evaluation Groups (SEG) before being approved for inclusion in the repository

»» Usage and Adoption

Interoperability

- **Interoperability does not require everybody to do things the same way...**
 - ...but it *does* require that we *understand* what everybody does
 - What we commonly do
 - What we need to do in-common
 - What isn't in common
- **Standards reflect this understanding...**
 - ... **Adoption generates interoperability**

CGI – Market Practices

- ▶ CGI–MP – Common Global Implementation – Market Practices refers to published documents that help ensure consistent understanding and implementation of the standard.
- ▶ The breadth of content available for each message is designed to support a wide array of scenarios. But this leads to the possibility of inconsistent implementations.
 - Example: Regional or industry–specific scenarios may dictate that some fields marked as “optional” are required in certain situations.
 - Example: some CGI–MP documents include data mappings from legacy formats (FedWire, SWIFT MT–, ACH) to ISO 20022
- ▶ CGI documents are not part of the standard and they are not available for every message, but they provide significant and important guidance for successful implementation where they are present.

U.S. ISO 20022 Adoption Status

- ▶ ISO 20022 is a well-established standard in many parts of the world and is in use by U.S. companies for cross-border payments
- ▶ U.S. wire systems – FedWIRE and CHIPS – will adopt ISO 20022 beginning in 2020
- ▶ NACHA adoption for ACH payments
 - Opt-in program to support ISO 20022 in CTX addenda
 - Mappings of ISO 20022 data to-and-from U.S. ACH formats in response to demand from banks and corporates
- ▶ Large ERP systems (e.g. Oracle, SAP) support ISO 20022

Summary

▶ So here's your elevator pitch

ISO 20022 is a **standard methodology** whose practical application **results** in a wide array of **standard messages** for exchanging **financial data**.

It goes the extra mile by structuring the messages in a manner that is consistent and easily understood.

The most important attributes of the standard is that it clearly defines:

- ▶ Who handles a message
- ▶ The role of everyone
- ▶ What data each message must have to fulfill the needs of each role



Questions and Answers

Where can I get more information?



Want More?

Send Questions and Requests to: business.payments.smb@mpls.frb.org

Visit the Business Payments Coalition Website:

<https://fedpaymentsimprovement.org/payments-efficiency/business-payments-coalition/>

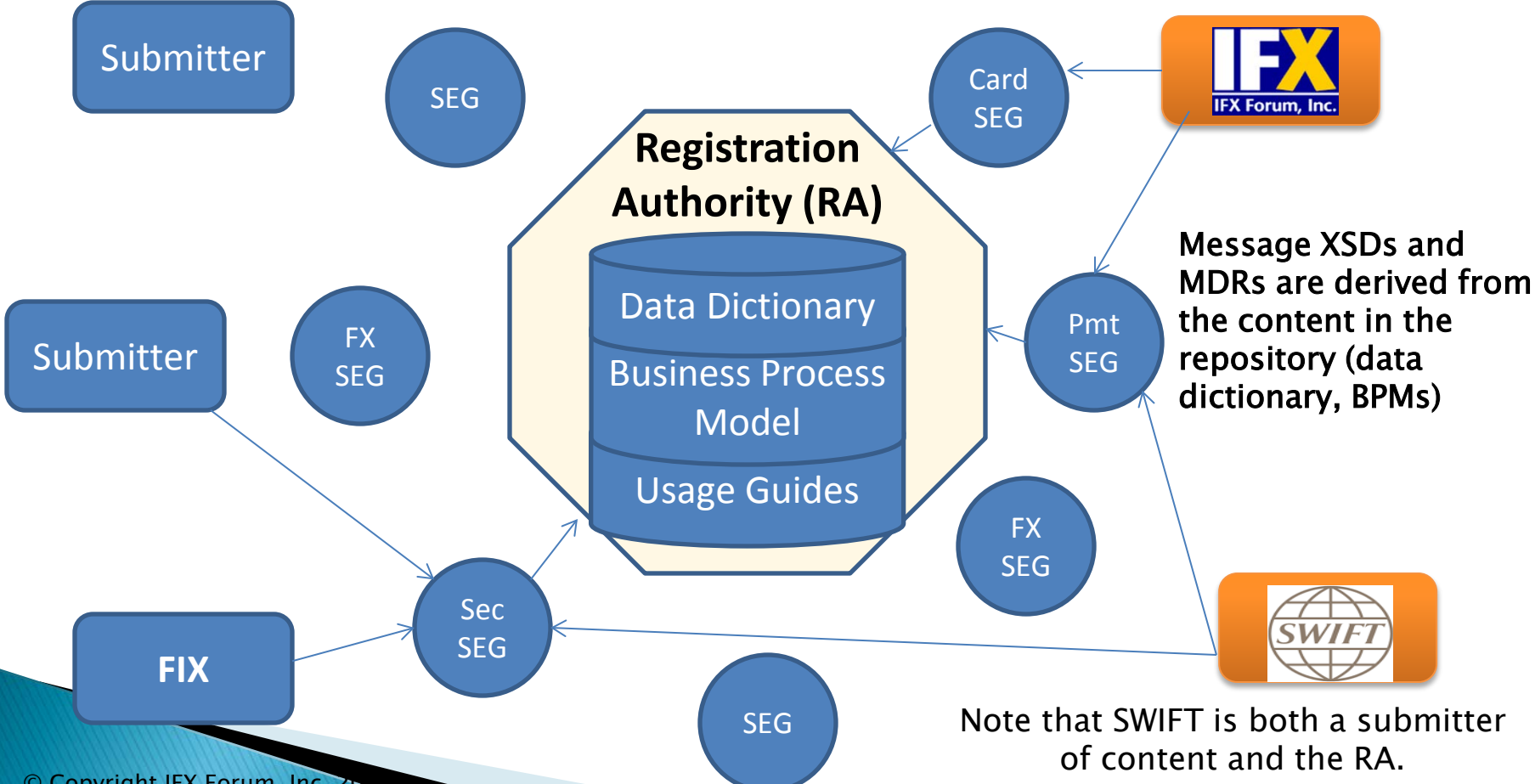
Additional details of the ISO organization and governance



Appendix

ISO 20022 Development

Various organizations submit content proposals which are evaluated before being approved for the include in the repository. IFX Forum is a regular contributor to ISO 20022 including payments content.



ISO TC68, ISO 20022

ISO 20022 is managed by the ISO Technical Committee 68
The standard is managed by Registration Management Group (RMG)



Message Versions

What	Who	Due Date	Lapsed
Initial CR submission	Submitter	June 1	0 (to 364)
Change request evaluation	Owner(s)*	July 7	30+ days
Detailed CR submission	Submitter	Aug 21	75+ days
Change development	Submitter	Dec 1	150+
Change evaluation	SEG	Feb 1	210+
Version update	RA	Apr – May	1 – 2 years

The evolution of ISO 20022 messages is a governed by a change process that is driven by a strict adherence to a calendar for submission, evaluation and development.

