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Module 1:
Demystifying ISO 20022
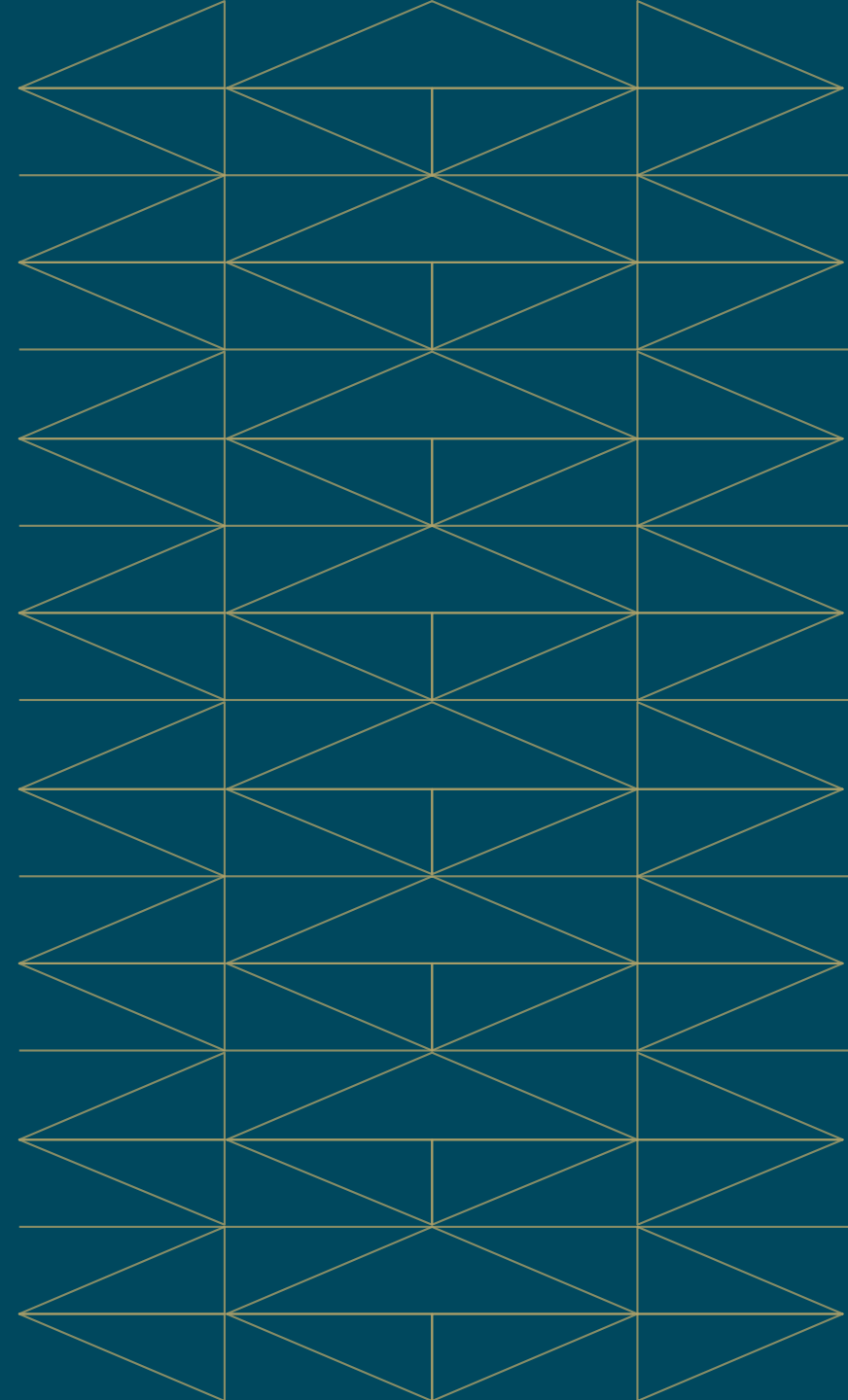
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BNY Mellon Asset Servicing

September 21, 2020

Module 1

Agenda

|	
1 . General	1.1 ISO 20022 Messages Development (Recap from Introduction Session)
	1.2 ISO 20022 Catalogue of Messages
	1.3 ISO 20022 Message Naming, Variants and Versions
	1.4 FIN MT and ISO 20022 Equivalents
2 . ISO 20022	2.1 New Terminology
	2.2 ISO 20022 Message Structure
	2.3 Actors in an End-to-end payment chain
	2.4 Concepts
3 . Maintenance	3.1 ISO 20022 Maintenance

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1.1   ISO 20022 Messages Development
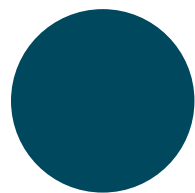
Business Model
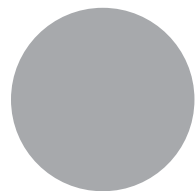
Logical Messages
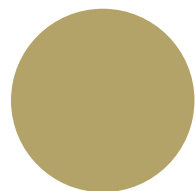
Syntax
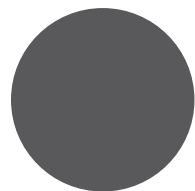
Financial Repository

ISO 20022 is a single standardisation approach to be used by all financial standards initiatives

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1.2   ISO 20022 Catalogue of Messages

XML = Extensible Markup Language

30 Business areas, covering several markets, e.g. payments, securities, trade services, foreign exchange

Main Business Areas for Payments:

pain   Payment Initiation
pacs   Payment Clearing and Settlement
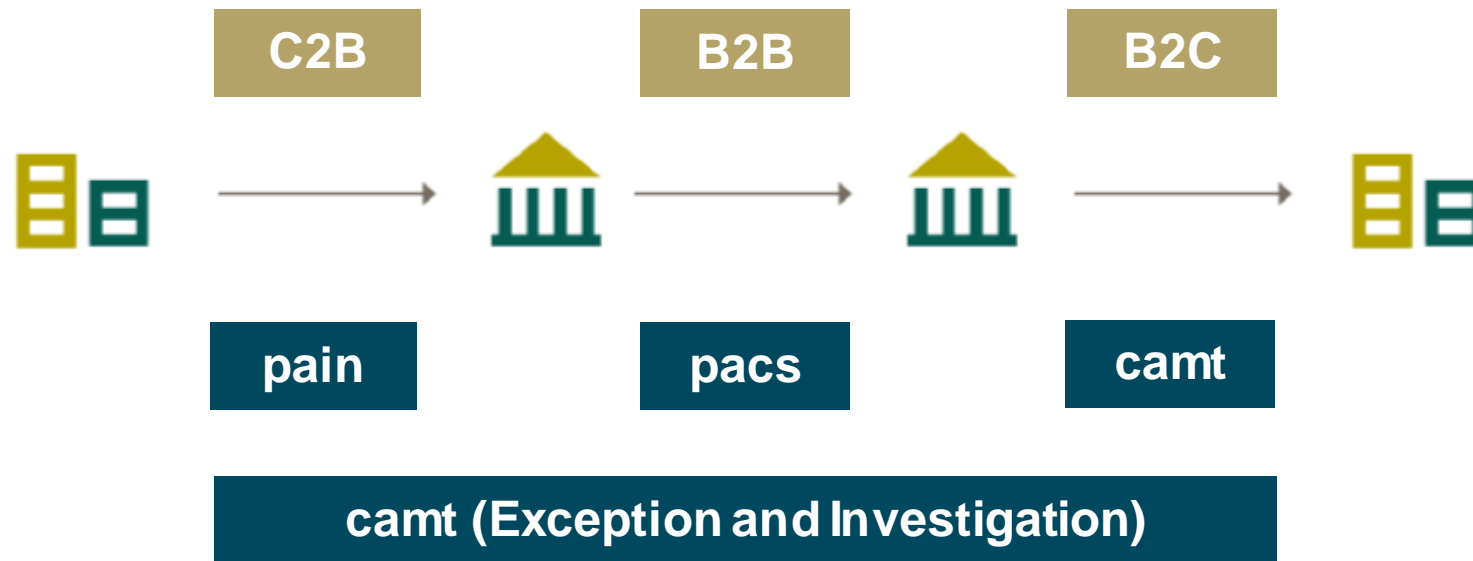camt   Cash Management (Includes E&I)

Main Business Areas for Securities:

sese   Securities Settlement
seev   Securities Events
semt   Securities Management

Link ISO Repository: https://www.iso20022.org/iso-20022-message-definitions

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1.2   ISO 20022 Catalogue of Messages

End to End Payment Chain

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1.3   ISO 20022 Message Naming, Variants and Versions

4!a.3!c.3!n.2!n

		Example
4!a	Business Area	pacs
3!c	Message Identifier	008
3!n	Variant	001
2!n	Version	08

pacs.008.001.08   FItoFICustomerCreditTransfer

Other example (Securities Market):

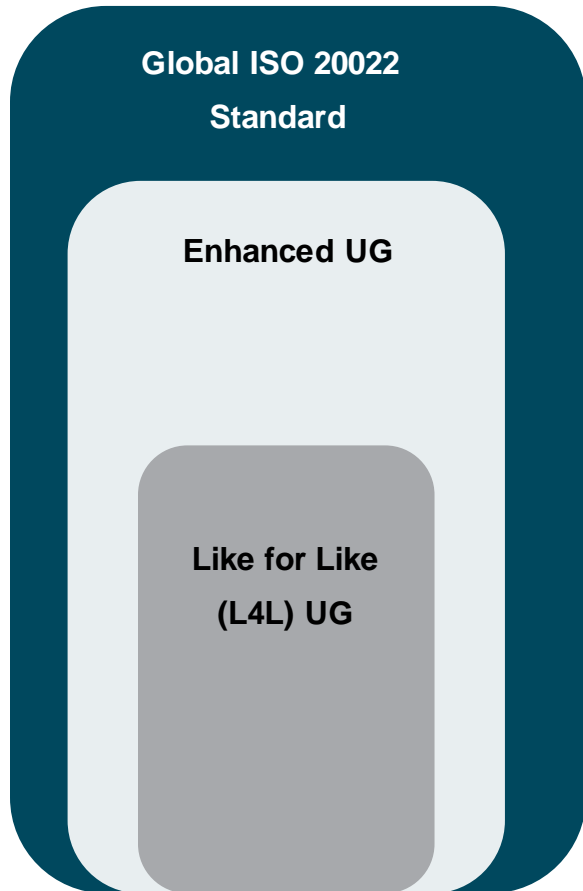sese.023.001.09   SecuritiesSettlementTransactionInstruction

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1.4   FIN MT and ISO 20022 Equivalents (Correspondent Banking)

FIN MTs	ISO 20022 Message Identification	ISO 20022 Message Name
MT 103/MT103 STP/MT 103 Remit	pacs.008.001.xx	FI to FI Customer Credit Transfer
MT 202 / 202 COV / MT 200/ MT 205/ MT 205 COV	pacs.009.001.xx	Financial Institution Credit Transfer
MT New 103 (Return) / MT New 202 (Return)	pacs.004.001.xx	Payment Return
MT 103 REJECT / MT 202 REJECT	pacs.002.001.xx	FI to FI Payment Status Report (Negative)
No Equivalent	pacs.002.001.xx	FI to FI Payment Status Report (Positive)
MT 210	camt.057.001.xx	Notification to Receive
MT 900 / 910	camt.054.001.xx	Bank to Customer Debit Credit Notification
MT 920	camt.060.001.xx	Account Reporting Request
MT 941 / 942	camt.052.001.xx	Bank to Customer Account Report
MT 940 / 950	camt.053.001.xx	Bank to Customer Statement
MT 192 / MT 292	camt.056.001.xx	FI to FI Payment Cancellation Request
MT 195/ MT 295	camt.026.001.xx	Unable to Apply
	camt.027.001.xx	Claim Non Receipt
	camt.087.001.xx	Request to Modify
MT 196/MT 296	camt.029.001.xx	Resolution of Investigation
MT 101	Pain.001.001.xx	Customer Credit Transfer Initiation (Relay Scenario only for CBPR+)
No Equivalent	head.001.001.xx	Business Application Header

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1.4   FIN MT and ISO 20022 Equivalents (Under Development)

FIN MTs	ISO 20022 Message Identification/Name
MT 110 / MT 111 / MT 112	New cheque messages
MT n90 / MT n91	New fee messages

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2.1 ISO 20022 New Terminology: General

Global ISO 20022 Standard

Enhanced UG

Like for Like (L4L) UG

Terminology	Definition
Usage Guideline	Market Practice for ISO 20022 messages as defined in MyStandards, e.g.: • Removal of optional elements • Multiplicity change (optional element made mandatory, Number of occurrences) • Restriction in element data length • Restriction/addition of codes • Addition of rules and guidelines
L4L/Like for Like (UG)	Restrictions applied to the Global ISO 20022 Standards to align fully with FIN MT (allows smooth translation MX >< MT with no truncation)
Enhanced/Enriched/ Fully Fledged (UG)	Restrictions applied to Global ISO 20022 Standards that go beyond the FIN MT, e.g. CBPR+, HVPS+, T2, …

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2.1   ISO 20022 New Terminology: Message and Parties

	MT	ISO 20022
Message	Field	Element
	Field Format	Data Type
Parties	Ordering Customer	Debtor
	Beneficiary Customer	Creditor
	Bank	Agent
	Sender	Instructing Agent
	Receiver	Instructed Agent

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2.2   ISO 20022 Message Structure

Information Classification: Public   BNY MELLON
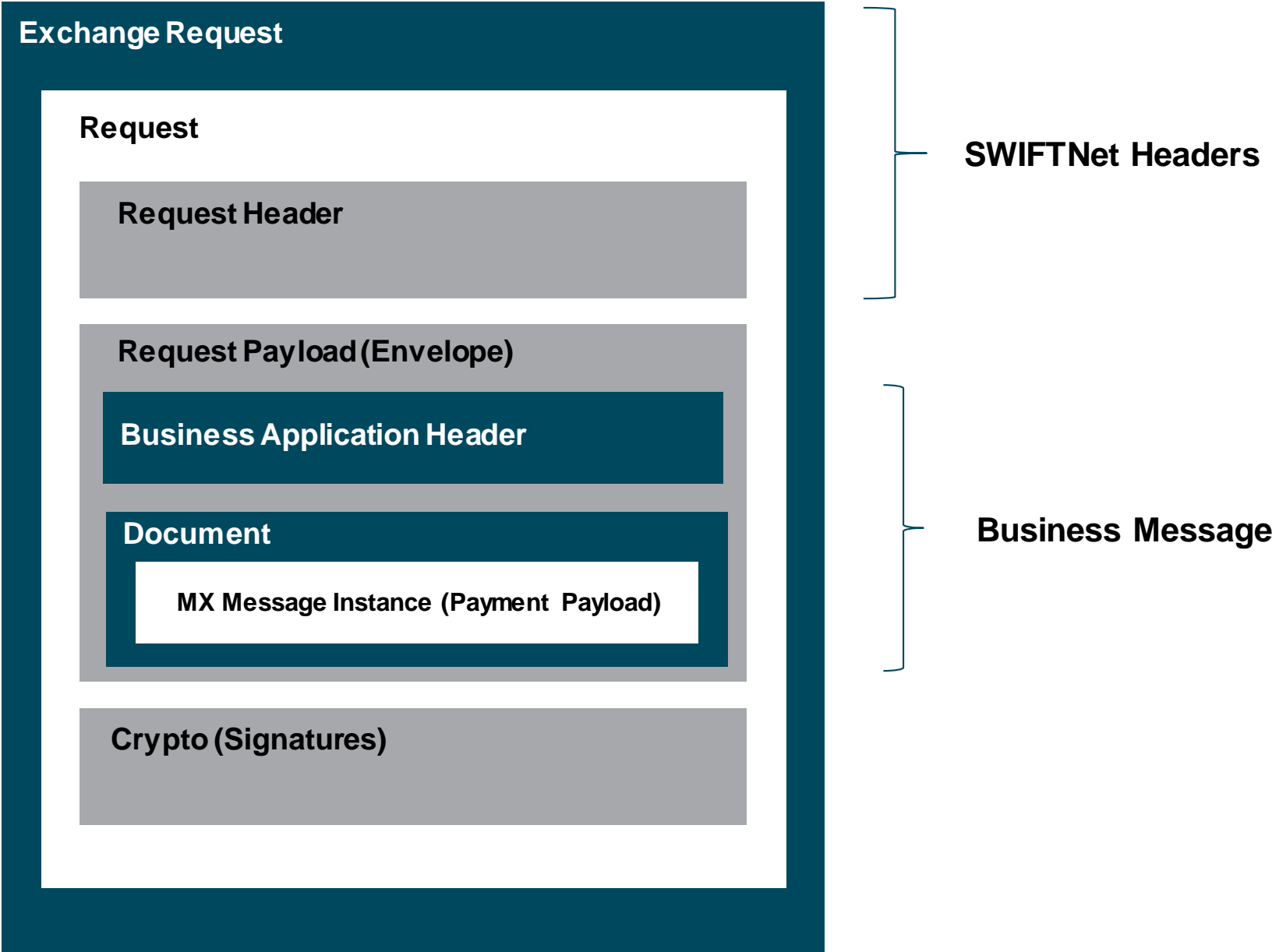
2.2 ISO 20022 Message Content

Example

pacs.008.001.08

Block

Component

Element and Sub-Element
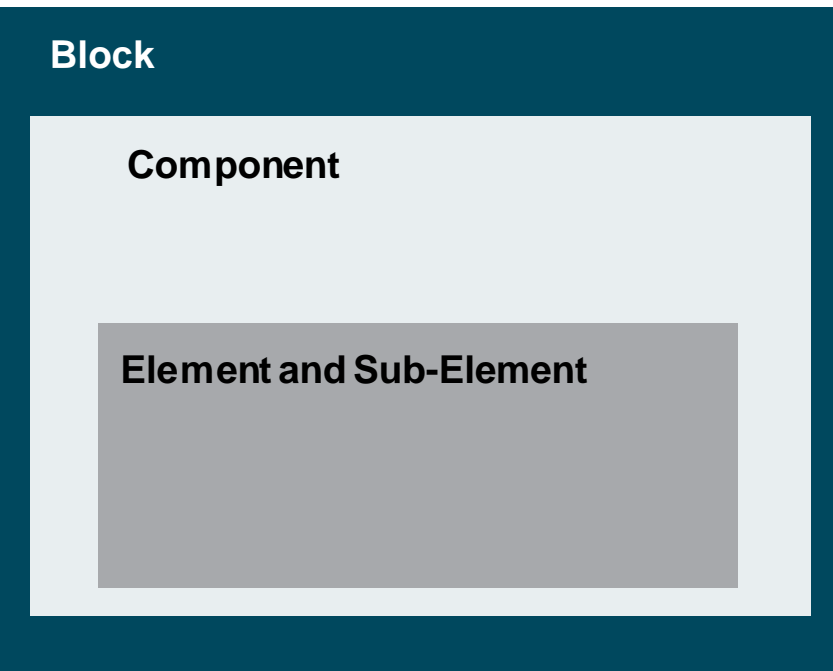
→ GroupHeader (GrpHdr)

→ SettlementInformation (SttlmInf)

→ SettlementAccount (SttlmAcct)

        Identification (Id)

           IBAN (IBAN)

      Other (Othr)

Note:

SettlementAccount = Element Name

SttlmAcct = XML Tag

XMLTags must be embedded within an Opening And Closing Tag

```
<SettlmAcct>
    <Id>
        <IBAN>8789338260</IBAN>
    </Id>
</SettlmAcct>
```

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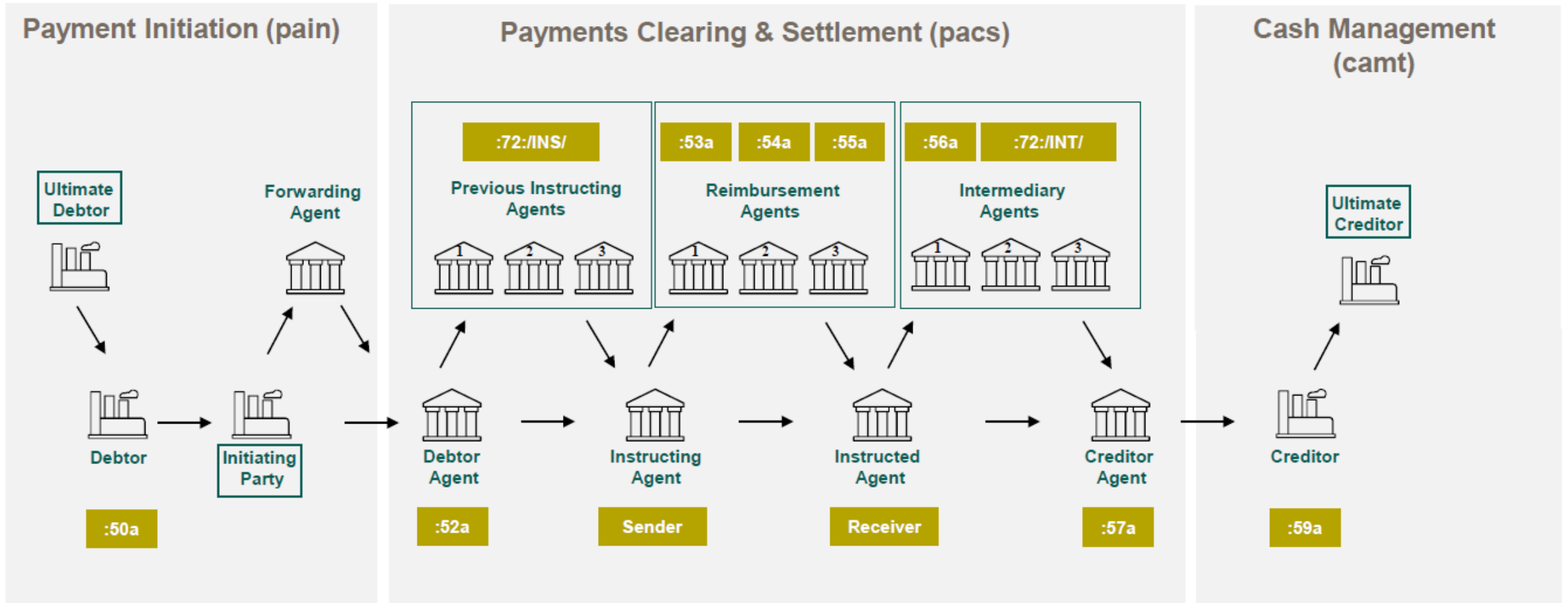
Multiplicity

Min	Max		
0	1	→	Element optional, if used can be present once only
0	*	→	Element optional, no limitation in the number of occurrences
0	n	→	Element optional, repeatable « n » times
1	1	→	Element mandatory, if not present message will be rejected
1	*	→	Element mandatory, no limitation in the number of occurrences
1	n	→	Element mandatory, repeatable « n » times

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2.4   XML Data Types

- A data type within an XML document is a type/format that has been assigned to an element
- It allows validation of the schema/xsd

Example: InterbankSettementAmount - **IntrBkSttlmAmt**
                DataType: ActiveCurrencyAndAmount

ActiveCurrencyAndAmount (based on decimal)
- fractionDigits : 5
- undefined
- undefined
- undefined
- minInclusive : 0
- undefined
- totalDigits : 18

`<IntrBkSttlmAmt Ccy="USD">664895.88</IntrBkSttlmAmt>`

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2.4   ISO 20022 External Codes

Embedded Codes	ISO External Code Lists

Embedded Codes

- Are part of the ISO 20022 message

- Change to code lists are part of the yearly maintenance request, i.e., once per year and will result in a new version of the message

ISO External Code Lists

- Externalised and posted on the ISO Website
- Updated on a Quarterly basis (through ISO Payment SEG)

Some elements allow proprietary codes,

ie codes that are bilaterally or multilaterally agreed

(not published publicly)

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2.4   ISO 20022 = Enriched Identifications (pacs.008.001.01)

Identification	PointToPoint/EndToEnd	Definition	Occurrence	FIN MT Equivalent
Instruction Identification (Max 35 Characters)	Point to Point	Unique identification, as assigned by an instructing party for an instructed party, to unambiguously identify the instruction.	Optional	Field 20 in MT 103
Transaction Identification (Max 35 Characters)	End to End	Unique identification, as assigned by the first instructing agent, to unambiguously identify the transaction that is passed on, unchanged, throughout the entire interbank chain.	Conditional	No equivalent
UETR (Exact 36 Characters)	End to End	Universally unique identifier to provide an end-to-end reference of a payment transaction.	Conditional	Field 121 Block 3 FIN Header
End to End Identification (Max 35 Characters)	End to End	Unique identification, as assigned by the initiating party, to unambiguously identify the transaction. This identification is passed on, unchanged, throughout the entire end-to-end chain.	Mandatory	Field 70 Remittance Information with code /ROC/ in MT 103
Clearing System Identification (Max 35 Characters)	From MI onward	Unique reference, as assigned by a clearing system, to unambiguously identify the instruction.	Optional	No equivalent

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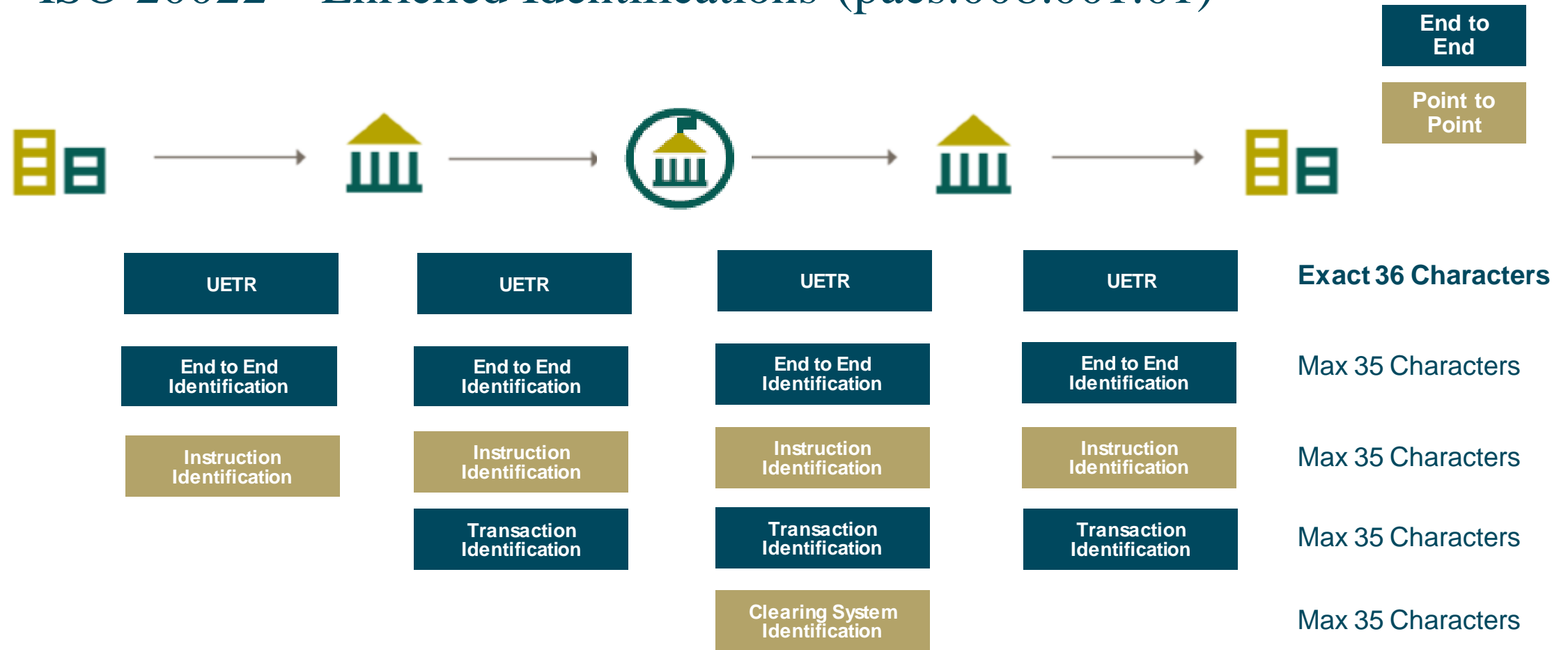# 2.4 UETR (Unique End to End Transaction Reference)

A Unique End-to-end Transaction Reference (commonly known as a UETR) is a string of 36 unique characters featured in all payment instruction messages carried over SWIFT.

It allows true end to end tracking of international payments

Example:
cea4ff16-9503-40df-9757-201cf1d7a127

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2.4 ISO 20022 = Enriched Identifications (pacs.008.001.01)

End to End
Point to Point

	UETR		Exact 36 Characters

UETR	UETR	UETR	UETR	Exact 36 Characters
End to End Identification	End to End Identification	End to End Identification	End to End Identification	Max 35 Characters
Instruction Identification	Instruction Identification	Instruction Identification	Instruction Identification	Max 35 Characters
	Transaction Identification	Transaction Identification	Transaction Identification	Max 35 Characters
		Clearing System Identification		Max 35 Characters

End to End: Once allocated in the Payment Transaction, the Identification must be transported unchanged throughout the whole payment chain, e.g. UETR

Point to Point: Each Agent in the payment chain can replace the existing reference with its own reference, e.g. Instruction ID

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3.1 ISO 20022 Maintenance

**ISO 20022 – Yearly Maintenance Process (18 Months in total)
June Year 0 to November Year +1**

1. The RA collects change requests from users

2. The SEG performs the initial evaluation of the change requests

3. The submitting organization prepares a Maintenance Change Request

4. The SEG reviews the Maintenance Change Request

5. The submitting organization develops the new candidate ISO 20022 message definitions

6. The SEG verifies the documentation of the new candidate ISO 20022 messages

7. The RA publishes the new version of the ISO 20022 message definitions

8. Testing and implementation

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Save the Date

Monday, October 26, 2020 (2 sessions – same content)

15:00 - 16:00 HKT/09:00 – 10:00 CET
08:00 - 09:00 EST/14:00 – 15:00 CET

<u>Module 2</u>: ISO 20022 Initiatives and ISO 20022 Message Flows

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