

DEMYSTIFYING ISO 20022

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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

1.1 ISO 20022 Messages Development

1

Business Model

2

Logical Messages

3

Syntax

4

Financial Repository



ISO 20022

Universal financial industry message scheme

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

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) |

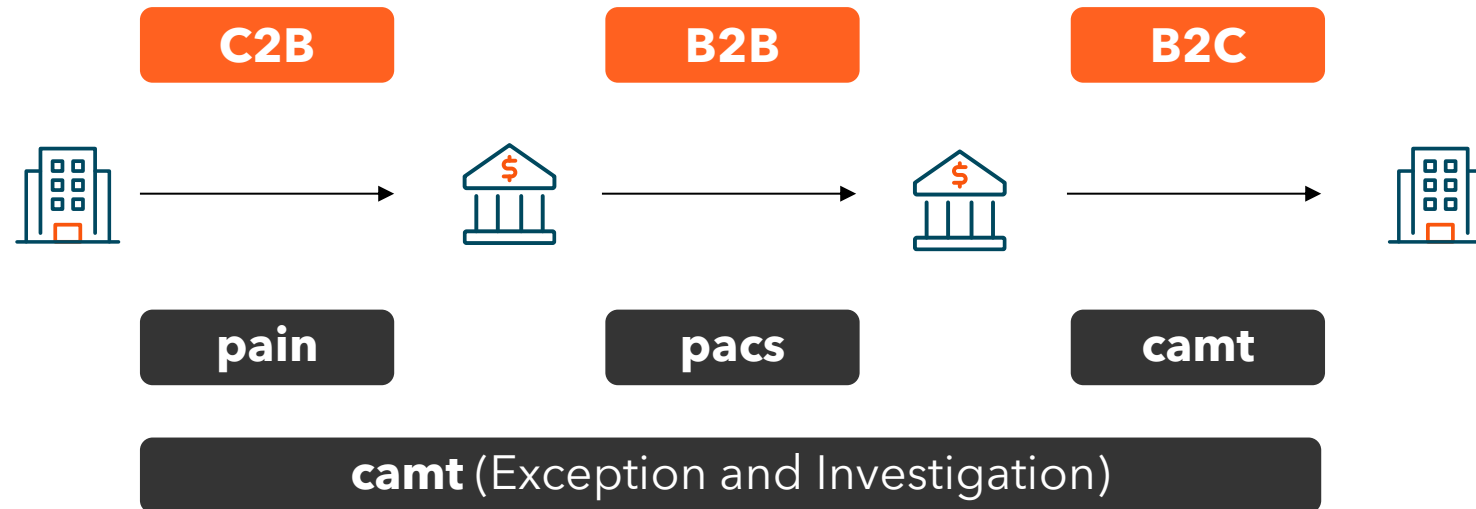
MAIN BUSINESS AREAS FOR SECURITIES:

| | |
|-------------|-----------------------|
| sese | Securities Settlement |
| seev | Securities Events |
| semt | Securities Management |

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

1.2 ISO 20022 Catalogue of Messages

End to End Payment Chain



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

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

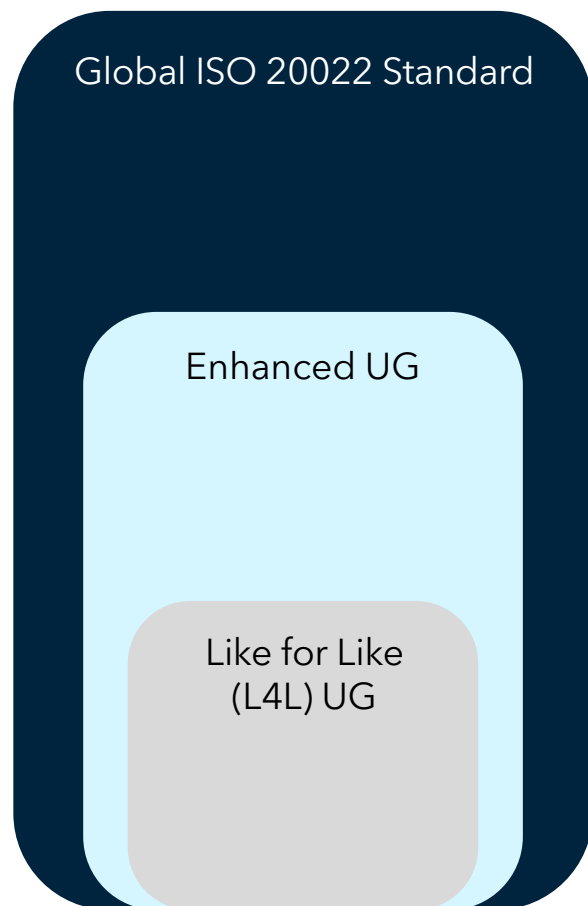
1.4 FIN MT and ISO 20022 Equivalents (Correspondent Banking)

| 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 |
| 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 |

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 |

2.1 ISO 20022 New Terminology: General

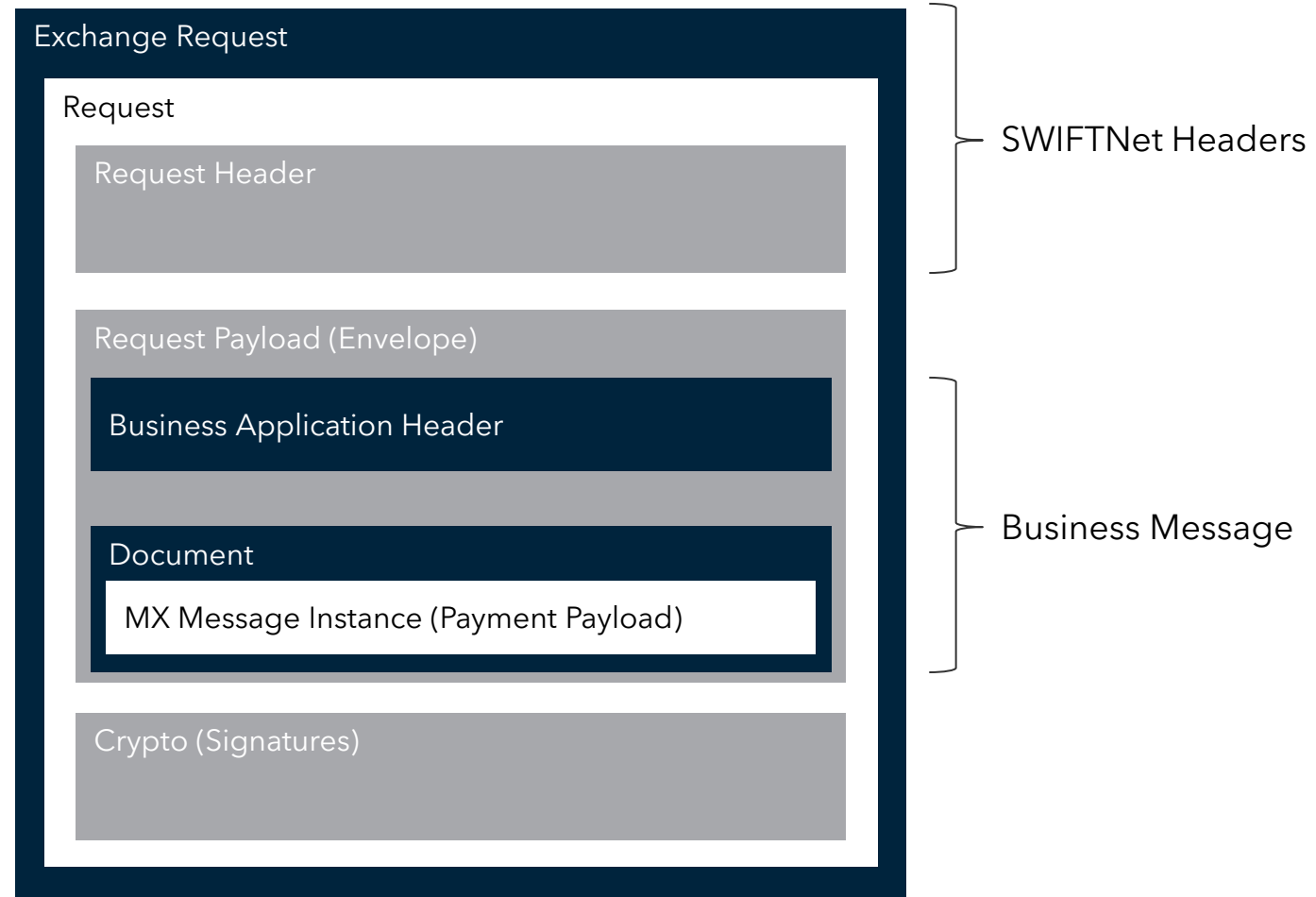


| TERMINOLOGY | DEFINITION |
|---------------------------------------|--|
| Usage Guideline | Market Practice for ISO 20022 messages as defined in MyStandards, e.g.: <ul style="list-style-type: none"> • Removal of optional elements • Multiplicity change (optional element made mandatory, Number of occurrences) • 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, ... |

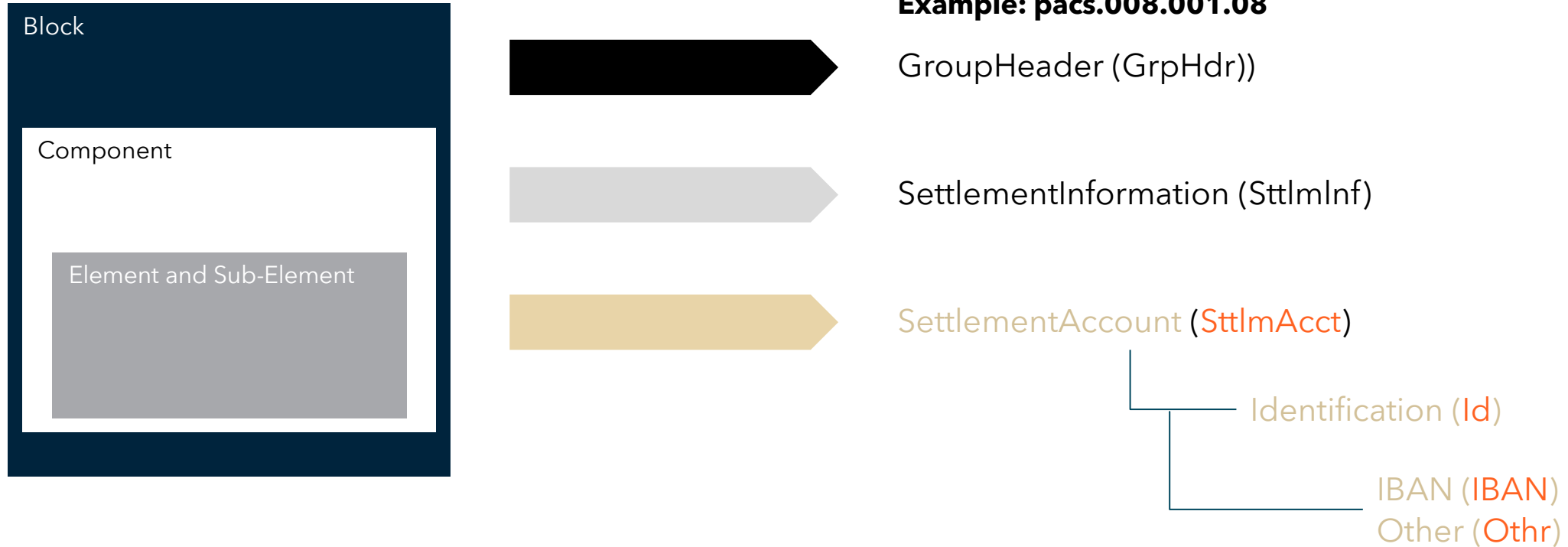
2.1 ISO 20022 New Terminology: Message and Parties

| | 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 |

2.2 ISO 20022 Message Structure



2.2 ISO 20022 Message Content



Note:

SettlementAccount = Element Name



SttlmAcct = XML Tag

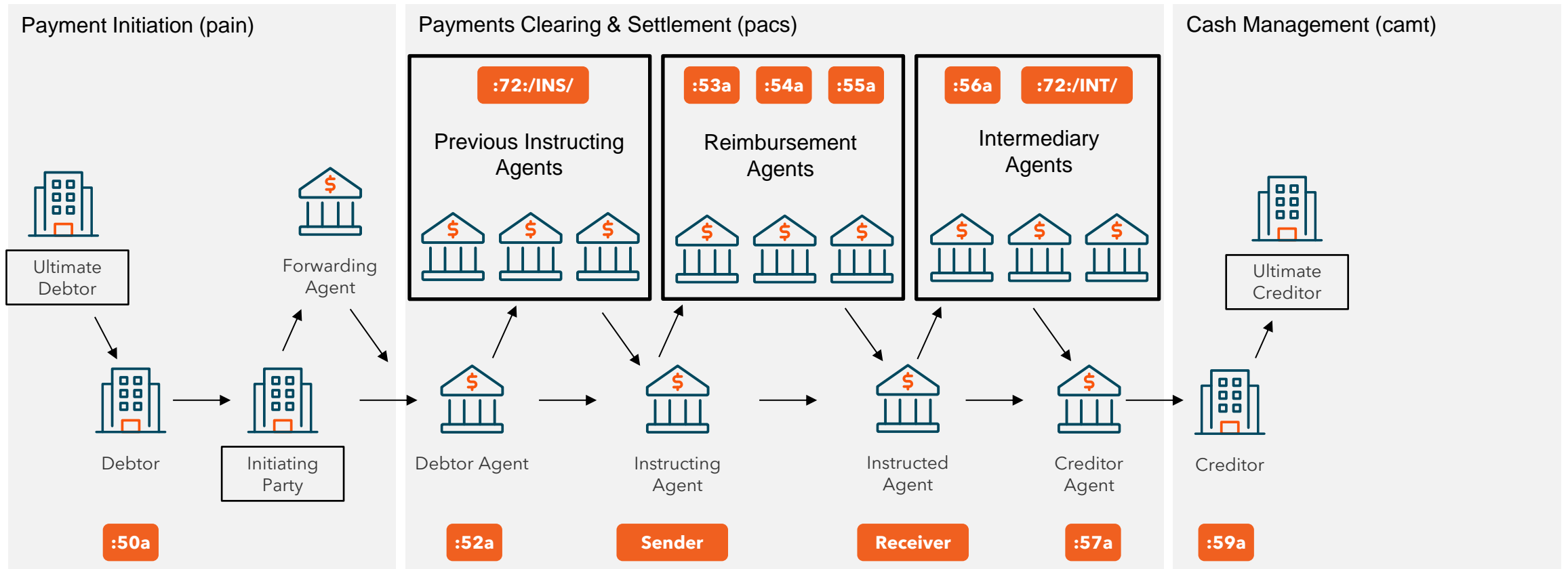
XML Tags must be embedded within an Opening And Closing Tag

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

2.3 ISO 20022 Actors in an End-to-End Payment Chain

Legend: ISO 20022

-  New parties introduced in ISO 20022
-  FIN MT format equivalent



2.4 Concepts: XML Element Multiplicity

| Multiplicity | | | |
|--------------|-----|---|---|
| Min | Max | | |
| 0 | 1 | → | Element optional, if used can be present once only |
| 0 | * | → | Element optional, no limitation in 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 |

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:

InterbankSettlementAmount - **IntrBkSttlmAmt**

Data Type: **ActiveCurrencyAndAmount**

ActiveCurrencyAndAmount (based on decimal)

- fractionDigits : 5
- undefined
- undefined
- undefined
- minInclusive : 0
- undefined
- totalDigits : 18

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

2.4 ISO 20022 External Codes

EMBEDDED CODES

- Are part of the ISO 20022 message

| |
|----------------------------|
| ▼ ● Settlement Information |
| ▼ ⚙ Settlement Method |
| ◆ Instructed Agent [INDA] |
| ◆ Instructing Agent [INGA] |
| ◆ Cover Method [COVE] |
| ◆ Clearing System [CLRG] |

- 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

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

| |
|------------------------------|
| ▼ ● Payment Type Information |
| > ⚙ Instruction Priority |
| > ⚙ Clearing Channel |
| ▼ ⚙ Service Level |
| ⚙ Code |
| ● Proprietary |

| |
|---------------------------|
| ▼ Type |
| ExternalServiceLevel1Code |
| • minLength: 1 |
| • maxLength: 4 |

Some elements allow proprietary codes, i.e., codes that are bilaterally or multilaterally agreed (not published publicly)

2.4 ISO 20022 = Enriched Identifications (pacs.008.001.01)

| IDENTIFICATION | POINTTOPOINT/ENDTOEND | DEFINITION | OCCURENCE | 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 |

2.4 UETR (Unique End to End Transaction Reference)

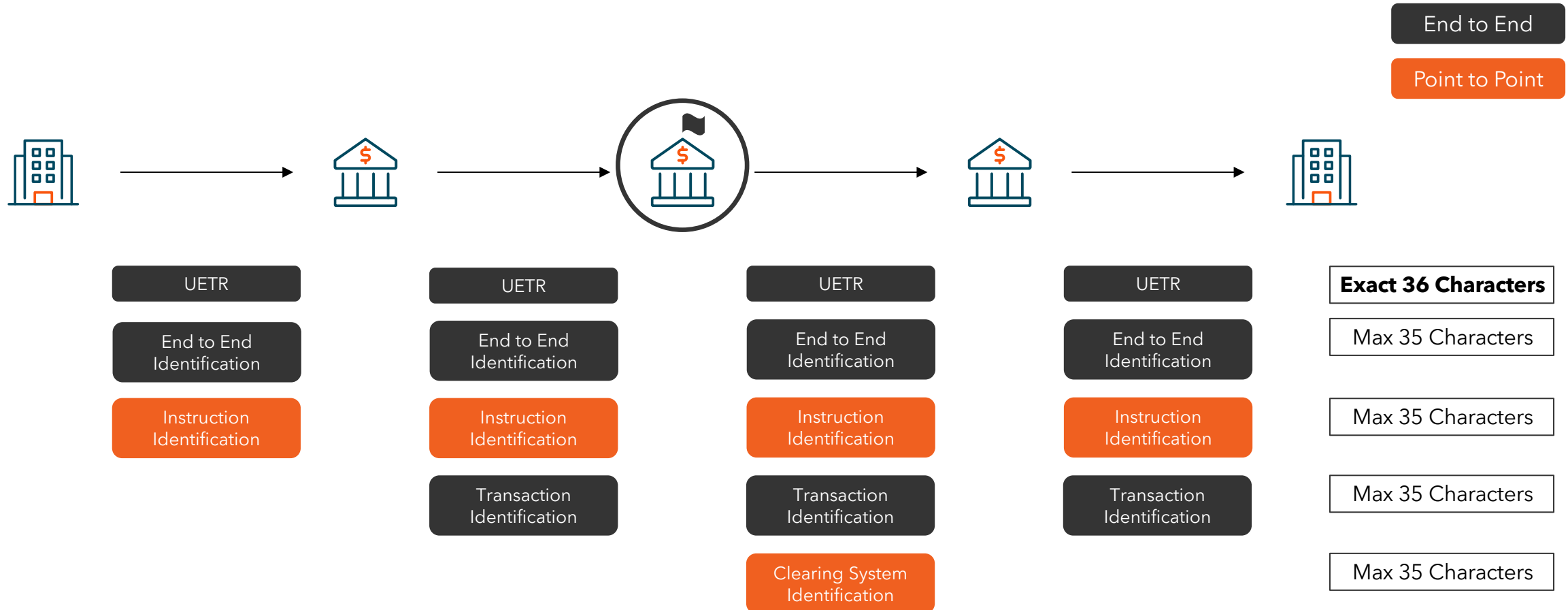
A Unique End-to-end Transaction Reference (commonly known as a UETR) is a string of 36 unique characters featured in all payment instruction messages carried over SWIFT.

It allows true end to end tracking of international payments

Example:

cea4ff16-9503-40df-9757-201cf1d7a127

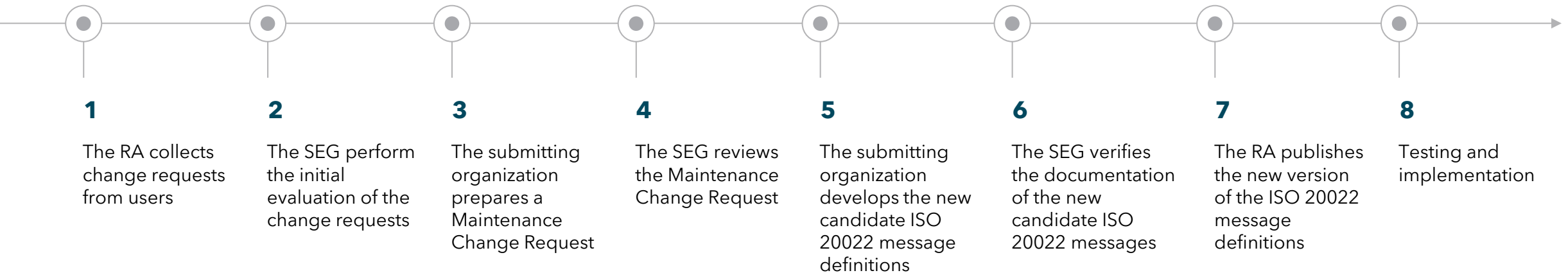
2.4 ISO 20022 = Enriched Identifications (pacs.008.001.01)



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

3.1 ISO 20022 Maintenance

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



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