Government of the Macao Special Administrative Region
Financial Services Bureau

Automatic Exchange of Information (AEOI)

XML Schema v1.3.1

User Guide

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Date ：Mar 2022

Version History

The revision history of each Automatic Exchange of Information (AEOI) XML Schema User Guide version is here:

Version no.	Description	Section updated	Version date
1.0	The initial release.		Jul 2017
1.1	Allowable entries (CRS804 to CRS808) for the "CtrlgPersonType" element are added.	D 2.2.4	Aug 2017
1.2	The "version" attribute is amended in xsd file to be in line with the requirement in the user guide, the updated version of AEOI XML Schema (v1.2) "mo_aeoi_schema_v1.2.xsd" is effective from 12 Feb 2018.	A 4	Jan 2018
1.3	Unacceptable character(s) is amended for best practices. Diagrams for "version" attribute is revised The updated version of AEOI XML Schema (v1.3) "mo_aeoi_schema_v1.3.xsd" is effective from 1 Apr 2020.	C 2 Appendix A	Mar 2020
1.3.1	User guide version is added. Explanation for Optional(Mandatory) is revised. XML message file name rule for split files is added. Description for element FormerCountryName is added.	Table of Contents B 13 C 3 (e) D 3.5	Mar 2022

A   Background

1. Pursuant to the Law 5/2017 regarding the exchange of information on tax matters, reporting financial institutions (FIs) are required to identify financial accounts held by tax residents of reportable jurisdictions, collect the required information in relation to these accounts and furnish the information to the Financial Services Bureau (FSB) in a specified format on an annual basis.

2. To help FIs fulfil their obligations, FSB has set up the AEOI FTP Server for FIs to submit financial account information electronically. FSB has developed a data schema in Extensible Markup Language (XML), which is based on the CRS XML Schema v1.0 issued by the Organisation for Economic Co-operation and Development, for FIs to report the required financial account information to FSB. The data received will be sorted and transmitted by FSB to the relevant AEOI partners.

3. FIs have to follow the specified format in the schema to create data files containing the required financial account information of reportable accounts. FIs should develop their own computer software to create data files.

4. This User Guide explains the information required to be included in each data element to be reported in the AEOI XML Schema (v1.3). It also contains guidance on how to make corrections of data items within a file that can be processed automatically.

B General Information

1. A schema is a data structure for holding and transmitting information electronically and in bulk. The AEOI XML Schema is used to verify whether the XML file transmitted by FI conforms to the specifications for submission of the required information.

2. The term "message" (or "data file") that is used throughout this document refers to a XML instance based on the AEOI XML Schema.

3. This User Guide provides information on specific data elements in the AEOI XML Schema and the attributes that describe that data element.

4. The Schema Information is divided into the following sections:

   Section 1   Message Header
   Section 2   Account Details
   Section 3   Individual Account Holder or Controlling Person Details
   Section 4   Entity Account Holder Details

   A diagrammatic representation of the AEOI XML Schema is shown in Appendix A in which corresponding section numbers are provided for easy reference.

5. The AEOI XML Schema allows for the reporting of financial account information for the relevant reporting period on an annual basis. FIs should not combine data of more than one calendar year in a single XML message. Data of two calendar years (or two reporting periods) should be reported in two separate XML messages.

6. A single message can contain reports for multiple reportable jurisdictions.

Creation and Correction of Message

7. The AEOI XML Schema allows a submitter to create a new message, update a previous message or delete an erroneous message.

(a) A message must contain either (i) "New Data", or (ii) "Corrected Data" and / or "Deletion of Data", but should not contain a mixture of both (i) and (ii). The type of data being submitted should be clearly stated in the Message Header (please refer to Part D paragraph 1.6 for details).

(b) Before the submission deadline of a particular year, correction of data should be done by uploading a new data file for replacement.

(c) After the submission deadline of a particular year, the correction process should be done by submitting a file containing:

(i) New Data (for information that has previously been omitted), or

(ii) Corrected Data and / or Deletion of Data (for erroneous information).

The records previously submitted to the AEOI FTP server can be identified for correction / deletion by matching the unique identifiers. The unique identifiers consist of a Message Reference ID and a Document Reference ID. Message Reference ID is the reference number of the message to be corrected. Such reference number can also be found in the OriginalMessageRefID inside Status Message. Document Reference ID is the unique identifier of each record in the data file which would facilitate identification of the particular record. FIs which develop their own program for preparing data files should ensure that all records in the data files will bear unique Document Reference IDs. Please see Part E for detailed guidelines on data correction.

8. Below are some examples illustrating how correction could be made by submitting the file containing new data, corrected data or deletion of data in various situations:

Situation 1:
I have submitted a new message and received a Status Message from AEOI FTP server saying it has been accepted. I then realised that some reportable accounts were omitted within the report.

Solution	
Before submission deadline	After submission deadline
Upload a new data file (containing all reportable accounts) for replacement.	Submit a data file containing the new data (only for those reportable accounts that have previously been omitted).

Situation 2:
I have submitted a new message and received a Status Message from AEOI FTP server saying it has been accepted. I then realised that the account balance of one account had been incorrectly reported.

Solution	
Before submission deadline	After submission deadline
Upload a new data file (containing that corrected data and those uploaded previously) for replacement.	Submit a data file containing corrected data (on the actual account balance of the account that had been incorrectly reported).

Situation 3:
I have submitted a new message and received a Status Message from AEOI FTP server saying it has been accepted. I then realised that the data of an account should not have been reported.

Solution	
Before submission deadline	After submission deadline
Upload a new data file (without the account information that should not be reported) for replacement.	Submit a data file containing deletion of data (for the account that should not have been reported).

Schema Validation Checks

9. The "Requirement" field for each data element (and its attribute) indicates whether the element is "Validation", "Validation (Choice)", "Optional" or "Optional (Mandatory)".

10. "Validation" elements must be present for ALL data records in a file and an automated validation check can be undertaken. The Sender should do a technical check of the data file content using XML tools to make sure that all "Validation" elements are present.

11. Where there is a choice between two "Validation" elements under a "Validation" parent and only one is needed, this is shown as "Validation (Choice)". If the elements are under an optional parent, they are shown as "Optional".

12. "Optional" elements may in certain instances represent a choice between one type or another, where one of them must be used (e.g. choice between fixed or free format address).

13. Certain elements are labelled as "Optional (Mandatory)", indicating that the element is in principle mandatory, but is only required to be provided in certain cases depending on the availability of information and legal requirements (e.g. date of birth of the Account Holder).

Validation Process

14. All data files uploaded into the AEOI FTP server will go through validation checking. FIs have to check the validation results through the Status Message in the AEOI FTP server. If errors are identified, a list will be given for the FIs to locate the relevant section in the XML file that has error.

15. The validation is a two-stage process:

    (a) Schema Validation - File Structure
    The XML file is checked to ensure its structure is correct and complete.

    (b) Database Validation - Logical Checks
    The data contained in the XML file are checked for logical consistency.

For example, for correction of data the system will check if a corresponding data record exists in the AEOI Account of the FI.

16. Some examples of errors within the XML message are provided at Appendix B for reference.

Submission of Test Data File for Testing

17. FIs can develop their own computer program for preparing data files for submission purposes. Before implementing their own program, FIs should obtain prior consent from FSB by submitting test data files for validation. FIs should upload test data files into the Test Folder in the AEOI FTP Server to verify whether the data files produced by their program conform to the specifications in the AEOI XML Schema. FIs have to state in the Document Type Indicator that it contains test data only. Please see Part D paragraph 2.2.1a for more description of this indicator.

C   Technical Information

1. FSB has adopted the following standards in developing this AEOI XML Schema:

   (a) All XML messages should be UTF-8 encoded.

   (b) All elements use Upper Camel Case (UCC), e.g. ReturnYear, and avoid hyphens, spaces etc.

   (c) Data contents of all elements are case sensitive unless specified otherwise.

   (d) ComplexTypes or simpleTypes are set up when the particular types are likely to be re-used e.g. MonAmnt_Type, Char120_Type.
   (The generic data type "CharNN_Type" requires input of at least one character and the value "NN" represents the maximum number of input characters.)

   (e) There is one 'import' for this Schema, i.e. isocrstypes (see Appendix C).

   (f) XML must be produced without Byte-Order-Mark. Please Note: These can be added without user notification by opening the XML in certain text editors.

2. Some characters are not accepted within the data of the XML file:

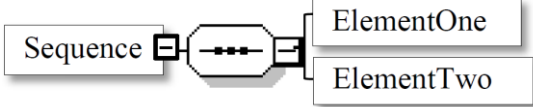| Unacceptable Character(s)	Description	Acceptable XML equivalent	Remarks
&	Ampersand	&	-
'	Apostrophe	'	-
<	Less Than	<	-
>	Greater Than	>	-
"	Double quote	"	-
&#	Ampersand Hash	none	Please do not include any &# symbols in the data of XML message.
--	Double dash	none	Please do not include any consecutive dashes in the data of XML message.
/*	Slash Asterisk	none	Please do not include any /* symbols in the data of XML message.
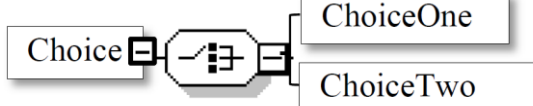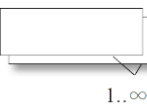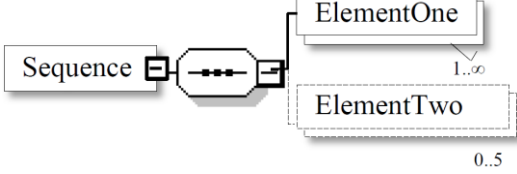
3. XML message should be named in accordance with the following format:

YYYYXXXXYYYYMMDDHHMMSS00.xml

(a) The **first 4 digits** are the calendar year to which the message relates.

(b) The **next 4 digits** are the unique AEOI Identification Number (AEOI ID) that was allotted to each FI.

(c) The **next 8 digits** are the file creation date starting with year then month then day (all single digit day or month dates should have a leading zero). Example: 1st April 2017 would be 20170401.

(d) The **next 6 digits** are the file creation time in hours, minutes and seconds.

(e) The **last 2 digits** are '00' for standalone file. In case of split files, the last 2 digits are the serial number starting from '00' to '99'.

This name should also be used for the element "MessageRefId" in the XML message (see Part D paragraph 1.5).

4. These XML symbols are used in this document.

Symbol	Explanation	Example
	This symbol means that an element is a sequence of other inner elements.	 The element *Sequence* is composed of two (child) elements: *ElementOne* and *ElementTwo*.
	This symbol means that an element is made of one and only one of the inner elements.	 The element *Choice* contains as child element either *ChoiceOne* **or** *ChoiceTwo*.
	This continuous border indicates a mandatory element or attribute within an instance document. The three lines in the upper left corner indicates that the element has no child element (this notation does not apply to attributes).	 The element *MandatoryElement* must be present in any XML instance document.
	This dashed border means that the element or attribute is optional within an instance document.	 The *OptionalElement* is optional in any XML instance document.
1..∞	The figures indicate the cardinality.	 The element Sequence is made of the following child elements: • *ElementOne*: this element must occur at least one time; • *ElementTwo*: this element is optional and can occur at most five times.

D   Schema Information

Section 1   Message Header (MessageSpec_Type)

Information in the message header identifies the FI that is sending the message. It specifies the Name of the FI, when the message was created, what period (normally a year) the report is for, and the nature of the report (i.e. new or corrected data).

1.1   Version

Element	Attribute	Size	Input Type	Requirement
MO_AEOI	version			Validation

XML schema version ID.

1.2   AEOI ID

Element	Attribute	Size	Input Type	Requirement
AeoiId		4-digit	crs:AeoiId_Type	Validation

This data element identifies the FI by its AEOI ID. FIs shall use the AEOI ID provided by FSB. Upon successful registration, an AEOI account will be opened with a unique AEOI ID for each FI.

1.3   Name of FI

Element	Attribute	Size	Input Type	Requirement
FIName		120-character	crs:Char120_Type	Validation

This data element identifies the Name of the FI as registered in FSB.

1.3 Attention Note

Element	Attribute	Size	Input Type	Requirement
AttentionNote		150-character	crs:Char150_Type	Optional

This data element is a free text field allowing input of notes on matters requiring the attention of the recipient. For example, if the reported data is for a period other than a full reporting year, this information can be given here as narrative, e.g. "ten month period".

1.4 Contact

Element	Attribute	Size	Input Type	Requirement
Contact		120-character	crs:Char120_Type	Optional

This data element is a free text field allowing input of specific contact information for the sender of the message.

1.5 Message Reference ID

Element	Attribute	Size	Input Type	Requirement
MessageRefId		40-character	crs:Char40_Type	Validation

This data element is a free text field capturing the sender's unique identifying number (created by the sender) that identifies the particular message being sent. The identifier allows both the sender and FSB to identify the specific message later if questions or need of corrections arise.

FI should use the name of the XML message as the MessageRefId (see Part C paragraph 3 for the name format).
(e.g. YYYYXXXXYYYYMMDDHHMMSS00)

The MessageRefId should be unique. Any message bearing same MessageRefId as one submitted previously will be rejected.

1.6 Message Type Indicator

Element	Attribute	Size	Input Type	Requirement
MessageTypeIndic			crs:CrsMessageTypeIndic_EnumType	Validation

This data element allows the sender to define the type of message sent. This is a Validation element. Messages must contain all new or all corrected data.

The possible values are:

CRS701= The message contains new information

CRS702= The message contains corrections for previously sent information

1.7 Return Year

Element	Attribute	Size	Input Type	Requirement
ReturnYear		4-digit	crs:ReturnYear_Type	Validation

This data element identifies the calendar year of the reporting period to which the message relates in YYYY format. For example, if reporting information for the accounts or payments made in calendar year of reporting period 2017, the field would read "2017". If exceptionally the reporting period is not a year then show the length of the reporting period in Attention Note.

1.8 Date and Time of Message

Element	Attribute	Size	Input Type	Requirement
Timestamp			xsd:dateTime	Validation

This data element identifies the date and time when the message was compiled. The format for use is YYYY-MM-DD'T'hh:mm:ss. Fractions of seconds are not used. Example: 2018-03-15T09:45:30.

Section 2   Account Details (CrsBody_Type)

2.1 Reporting Group

The CRS Body contains the Reporting Group element. This data element provides specific details about the report being sent by the FI.

There is only one ReportingGroup for each CrsBody. The AccountReport should be repeated as required.

Element	Attribute	Size	Input Type	Requirement
ReportingGroup				Validation

2.2 Account Report

Element	Attribute	Size	Input Type	Requirement
AccountReport			crs:CorrectableAccountReport_Type	Validation

AccountReport is mandatory and must be completed. AccountReport includes the following data elements under CorrectableAccountReport_Type:

Element	Attribute	Size	Input Type	Requirement
DocSpec			crs:DocSpec_Type	Validation

Element	Attribute	Size	Input Type	Requirement
AccountNumber			crs:FIAccountNumber_Type	Validation

Element	Attribute	Size	Input Type	Requirement
AccountHolder			crs:AccountHolder_Type	Validation

Element	Attribute	Size	Input Type	Requirement
ControllingPerson			crs:ControllingPerson_Type	Optional (Mandatory)

Element	Attribute	Size	Input Type	Requirement
AccountBalance			crs:MonAmnt_Type	Validation

Element	Attribute	Size	Input Type	Requirement
Payment			crs:Payment_Type	Optional

2.2.1 Document Specification

DocSpec identifies the particular report within the message being transmitted. It also allows for identification of reports requiring correction (see Part E for Guidance on Correction of Data).

Element	Attribute	Size	Input Type	Requirement
DocSpec			crs:DocSpec_Type	Validation

DocSpec_Type is comprised of the following elements:

2.2.1a Document Type Indicator

Element	Attribute	Size	Input Type	Requirement
DocTypeIndic			crs:OECDDocTypeIndic_EnumType	Validation

This element specifies the type of data being submitted. Allowable entries are:
- OECD1 = New Data
- OECD2 = Corrected Data
- OECD3 = Deletion of Data
- OECD11 = New Test Data
- OECD12 = Corrected Test Data
- OECD13 = Deletion of Test Data

A message can contain either new records (OECD1) or corrections / deletions (OECD2 and OECD3), but should not contain a mixture of both. OECD11 – OECD13 should only be used for testing of data file. FIs should upload test data file into the AEOI FTP Server to verify whether the data file produced by using their own computer program conforms to the specifications in the AEOI XML Schema before implementing their self-developed software.

Before the submission deadline, the AEOI FTP Server only accepts data files with new data record (OECD1) for that year.

For OECD1 and OECD11, the CorrMessageRefId, CorrDocRefId and CorrAccountNumber must be omitted.

For OECD2 and OECD12, the CorrMessageRefId, CorrDocRefId and CorrAccountNumber must be specified.

For OECD3 and OECD13, the CorrMessageRefId, CorrDocRefId and CorrAccountNumber must be specified.

2.2.1b Document Reference ID

Element	Attribute	Size	Input Type	Requirement
DocRefId		40-character	crs:Char40_Type	Validation

This element is the FI's unique identifier for this document (i.e. one record and all its children data elements). The data contents of this element are case

insensitive, so DocRefIds which differ only in letter case are considered to be the same.

The AEOI FTP Server will reject any message with duplicate DocRefId when the message is submitted. DocRefId should never be reused.

2.2.1c CorrMessageRefId

Element	Attribute	Size	Input Type	Requirement
CorrMessageRefId		40-character	crs:Char40_Type	Optional

This element is used for correction / deletion of data only. Please see Part E for Guidance on Correction of Data.

2.2.1d CorrDocRefId

Element	Attribute	Size	Input Type	Requirement
CorrDocRefId		40-character	crs:Char40_Type	Optional

This element is used for correction / deletion of data only. Please see Part E for Guidance on Correction of Data.

2.2.1e CorrAccountNumber

Element	Attribute	Size	Input Type	Requirement
CorrAccountNumber		72-character	crs:Char72-Type	Optional

This element is used for correction / deletion of data only. Please see Part E for Guidance on Correction of Data.

2.2.2 Account Number

Element	Attribute	Size	Input Type	Requirement
AccountNumber		72-character	crs:Char72_Type	Validation

The account number used by the FI to identify the account should be provided. If the FI does not have an account number then provide the functional equivalent unique identifier used by the FI to identify the account.

- This element is mandatory for FIs that have an account number (including alpha numeric identifiers).

- For example: The account number may be i) the account number of a Custodial Account or Depository Account; ii) the code (ISIN or other) related to a Debt or Equity Interest (if not held in a custody account); or iii) the identification code of a Cash Value Insurance Contract or Annuity Contract.

- If exceptionally there is no account numbering system, FIs need to provide a unique identifier to identify each account as this is a Validation element.

This format for account number is the same as FATCA and can be used for structured account numbers as well as free format; a non-standard account identifier or an insurance contract number could be included here.

Element	Attribute	Size	Input Type	Requirement
AccountNumber	AcctNumberType		crs:AcctNumberType_EnumType	Optional

There is an option to include information about the account number type as an enumeration. The possible values are:
- OECD601 = IBAN International Bank Account Number (follows a known structure)
- OECD602 = OBAN Other Bank Account Number
- OECD603 = ISIN International Securities Information Number (follows a known structure)
- OECD604 = OSIN Other Securities Information Number
- OECD605 = Other Any other type of account number e.g. insurance contract

Where an IBAN or ISIN is available, it should be provided and the appropriate information about the account number type supplied.

Element	Attribute	Size	Input Type	Requirement
AccountNumber	UndocumentedAccount		xsd:boolean	Optional (Mandatory)

This attribute is used to indicate that the account is undocumented.

Element	Attribute	Size	Input Type	Requirement
AccountNumber	ClosedAccount		xsd:boolean	Optional (Mandatory)

This attribute is used to indicate that the account is closed.

Element	Attribute	Size	Input Type	Requirement
AccountNumber	DormantAccount		xsd:boolean	Optional

This attribute may be used to indicate that the account is dormant.

2.2.3 Account Holder

Element	Attribute	Size	Input Type	Requirement
AccountHolder			crs:AccountHolder_Type	Validation

This data element may identify an entity account holder who is:
- a passive NFE with one or more controlling person that is a Reportable Person
- a Reportable Person

As there is a choice of entering an individual, or an organisation plus AcctHolderType, (but one or other must be entered as the account holder), these are shown as Validation (Choice) below.

Element	Attribute	Size	Input Type	Requirement
Individual			crs:PersonParty_Type	Validation (Choice)

If the Account Holder reported is a natural person, report his/her identifying information here.

Element	Attribute	Size	Input Type	Requirement
Organisation			crs:OrganisationParty_Type	Validation (Choice)

If the Account Holder reported is not a natural person, report the entity's identifying information here.

Element	Attribute	Size	Input Type	Requirement
AcctHolderType			crs:CrsAcctHolderType_EnumType	Validation (Choice)

This data element identifies an entity account holder that is:
- a passive NFE with one or more controlling person that is a Reportable Person
- a Reportable Person
- a passive NFE that is a Reportable Person

It should be completed only if the reported financial account is held by an entity or the reported payment is made to an entity described-above. Allowable entries are:
• CRS101 = Passive Non-Financial Entity with – one or more controlling person that is a Reportable Person
• CRS102 = Reportable Person
• CRS103 = Passive Non-Financial Entity that is a Reportable Person

2.2.4 Controlling Person

Element	Attribute	Size	Input Type	Requirement
ControllingPerson			crs:ControllingPerson_Type	Optional (Mandatory)

This data element provides the information of any Controlling Person of a Passive NFE that is a Reportable Person. It is mandatory only if the entity Account Holder is a Passive NFE with one or more Controlling Persons who is / are Reportable Person(s). If the Passive NFE has more than one Controlling Person that is a Reportable Person, then the information of all such Reportable Persons must be reported.

Where an Entity Account Holder is a Reportable Person and is also a Passive NFE with one or more Controlling Persons that is a Reportable Person, and both the Entity and any of such Controlling Persons are resident in the same Reportable Jurisdiction, the information with respect to the account may be reported (i) as an account of an Entity that is a Passive NFE with a Controlling Person that is a Reportable Person, or (ii) as such and as an account of an Entity that is a Reportable Person (i.e. as if were information with respect to two accounts).

Where none of such Controlling Persons is resident in the same Reportable Jurisdiction as the Entity, the information with respect to the account must nevertheless be reported as an account of an Entity that is a Reportable Person.

Element	Attribute	Size	Input Type	Requirement
Individual			crs:PersonParty_Type	Validation

This data element defines a Controlling Person with its Name, Address, Country of Residence.

Element	Attribute	Size	Input Type	Requirement
CtrlgPersonType			crs:CrsCtrlgPersonType_EnumType	Optional (Mandatory)

This data element allows the identification of the type of each Controlling Person ("CP") when available, with the following options:

a) CP of legal person – ownership

b) CP of legal person – other means

c) CP of legal person – senior managing official

d) CP of legal arrangement – trust – settlor

e) CP of legal arrangement – trust – trustee

f) CP of legal arrangement – trust – protector

g) CP of legal arrangement – trust – beneficiary

h) CP of legal arrangement – trust – other

i) CP of legal arrangement – other – settlor-equivalent

j) CP of legal arrangement – other – trustee-equivalent

k) CP of legal arrangement – other – protector-equivalent

l)   CP of legal arrangement – other – beneficiary-equivalent

m)   CP of legal arrangement – other – other-equivalent

Allowable entries are:

- CRS801 = CP of legal person – ownership
- CRS802 = CP of legal person – other means
- CRS803 = CP of legal person – senior managing official
- CRS804 = CP of legal arrangement – trust – settlor
- CRS805 = CP of legal arrangement – trust – trustee
- CRS806 = CP of legal arrangement – trust – protector
- CRS807 = CP of legal arrangement – trust – beneficiary
- CRS808 = CP of legal arrangement – trust – other
- CRS809 = CP of legal arrangement – other – settlor-equivalent
- CRS810 = CP of legal arrangement – other – trustee-equivalent
- CRS811 = CP of legal arrangement – other – protector-equivalent
- CRS812 = CP of legal arrangement – other – beneficiary-equivalent
- CRS813 = CP of legal arrangement – other – other-equivalent

2.2.5 Account Balance

Element	Attribute	Size	Input Type	Requirement
AccountBalance		decimal(16,2)	crs:TwoDigFract_Type	Validation

This data element provides the account balance or value of the reported financial account as at the end of the calendar year (or relevant reporting period).

• An account with a balance or value that is negative must be reported as having an account balance or value equal to zero.

• If account has been closed, the account balance must be reported as zero, in combination with account closed attribute.

• Numeric characters (digits) are required. Account balance is entered with a maximum of 14-digit integral and 2-digit fractional amounts of the currency in question. For example, MOP 1 000 would be entered as 1000.00.

Element	Attribute	Size	Input Type	Requirement
AccountBalance	currCode	3-character	iso:currCode_Type	Validation

All amounts must be accompanied by the appropriate 3 character currency code based on the ISO 4217 Alpha 3 standard (see Appendix C).

2.2.6 Payment

Element	Attribute	Size	Input Type	Requirement
Payment			crs:Payment_Type	Optional

This data element provides the information on payment made to the reported financial account during the calendar year (or relevant reporting period).

Payment information is a repeating element, if more than one payment type needs to be reported.

Payment types may include the following:

Depository accounts:
• The aggregate gross amount of interest paid or credited to the account during the calendar year (or relevant reporting period).

Custodial accounts:
• The aggregate gross amount of dividends paid or credited to the account during the calendar year (or relevant reporting period);

• The aggregate gross amount of interest paid or credited to the account during the calendar year (or relevant reporting period);

- The gross proceeds from the sale or redemption of property paid or credited to the account during the calendar year (or relevant reporting period) with respect to which the FI acted as a custodian, broker, nominee, or otherwise as an agent for the account holder and;
- The aggregate gross amount of all other income paid or credited to the account during the calendar year (or relevant reporting period).

Debt or equity accounts:
- The aggregate gross amount of payments paid or credited to the account during the calendar year (or relevant reporting period), including redemption payments.

Cash value insurance and annuity contract accounts:
- The aggregate gross amount of payments paid or credited to the account during the calendar year (or relevant reporting period), including redemption payments.

Element	Attribute	Size	Input Type	Requirement
Type			crs:CrsPaymentType_EnumType	Validation

The FI should select the proper code to identify the payment type. Specific payment types listed are:
- CRS501 = Dividends
- CRS502 = Interest
- CRS503 = Gross Proceeds / Redemptions
- CRS504 = Other (Example: other income generated with respect to the assets held in the account)

Element	Attribute	Size	Input Type	Requirement
PaymentAmnt		decimal(16,2)	crs: TwoDigFract_Type	Validation

Payment Amounts are entered with a maximum of 14-digit integral and 2-digit fractional amounts of the currency in question. For example, MOP 1000 would be entered as 1000.00. Where the payment involved is negative, the payment amount should be reported as zero.

Element	Attribute	Size	Input Type	Requirement
PaymentAmnt	currCode	3- character	iso:currCode_Type	Validation

All payment amounts must be accompanied by the appropriate 3 character currency code based on the ISO 4217 Alpha 3 standard.

Section 3   Individual Account Holder or Controlling Person Details(PersonParty_Type)

The data elements in this section are used for Individual Account Holders or Controlling Persons of Passive NFEs. This complex type is comprised of the following data elements:

Element	Attribute	Size	Input Type	Requirement
ResCountryCode		2-character	iso:CountryCode_Type	Validation

Element	Attribute	Size	Input Type	Requirement
TIN			crs:TIN_Type	Optional (Mandatory)

Element	Attribute	Size	Input Type	Requirement
Name			crs:NamePerson_Type	Validation

Element	Attribute	Size	Input Type	Requirement
Address			crs:Address_Type	Validation

Element	Attribute	Size	Input Type	Requirement
BirthInfo				Optional (Mandatory)

3.1 Residence Country Code

Element	Attribute	Size	Input Type	Requirement
ResCountryCode		2-character	iso:CountryCode_Type	Validation

This data element describes the tax residence country code(s) for the individual being reported upon. This data element uses the 2-character alphabetic country code and country name list based on the ISO 3166-1 Alpha 2 standard (see Appendix C).

If the individual is certified or treated as tax resident in more than one jurisdiction then this element may be repeated.

For undocumented accounts, the code "MO" should be used.

3.2 TIN Type

Element	Attribute	Size	Input Type	Requirement
TIN		80-character	crs:Char80_Type	Optional (Mandatory)

This data element identifies the Tax Identification Number (TIN) used by the residence jurisdiction to identify the Individual Account Holder or Controlling Person. Where TIN is not available for a Pre-existing Account in the records of the FI, this may be left blank. However, the FI is required to collect such information by the end of the second calendar year following the year in which such accounts were identified as Reportable Accounts.

This data element can be repeated if the individual has more than one TIN.

Element	Attribute	Size	Input Type	Requirement
TIN	issuedBy	2-character	iso:CountryCode_Type	Optional (Mandatory)

This attribute identifies the jurisdiction that issued the TIN. If the issuing jurisdiction is not known then this may be left blank.

3.3 NamePerson_Type

Element	Attribute	Size	Input Type	Requirement
NamePerson_Type	nameType		crs:OECDNameType_EnumType	Optional

This data element allows the FI to report both the name at birth and the name after marriage.

OECDNameType_EnumType

It is possible for an individual or entity to have several names. The attribute "nameType" is a qualifier to indicate the type of a particular name. Such types include nicknames ("nick"), names under which a party does business ("dba" a short name for the entity, or a name that is used for public acquaintance instead of the official business name) etc.

The possible values are:
- OECD202 = indiv
- OECD203 = alias
- OECD204 = nick
- OECD205 = aka (stands for "also known as)
- OECD206 = dba (stands for "doing business as")
- OECD207 = legal
- OECD208 = atbirth

Element	Attribute	Size	Input Type	Requirement
PrecedingTitle		30-character	crs:Char30_Type	Optional

Element	Attribute	Size	Input Type	Requirement
Title		30-character	crs:Char30_Type	Optional

Element	Attribute	Size	Input Type	Requirement
FirstName		70-character	crs:Char70_Type	Validation

If the FI does not have a complete first name for an Individual Account Holder or Controlling Person, an initial or NFN ("No First Name") may be used here.

Element	Attribute	Size	Input Type	Requirement
MiddleName		120-character	crs:Char120_Type	Optional

This data element allows for the Individual's Middle Name. The data is optional; if the FI holds a Middle Name or initial it may be included here.

Element	Attribute	Size	Input Type	Requirement
NamePrefix		30-character	crs:Char30_Type	Optional

Element	Attribute	Size	Input Type	Requirement
LastName		70-character	crs:Char70_Type	Validation

The FI must provide the last name of Individual Account Holder or Controlling Person. This field can include any prefix or suffix legally used by the Individual Account Holder or Controlling Person.

As the element is a string, it is possible to use it for a free format name or two last names although wherever possible the structured first name and last name should be used.

Element	Attribute	Size	Input Type	Requirement
GenerationIdentifier		30-character	crs:Char30_Type	Optional

Element	Attribute	Size	Input Type	Requirement
Suffix		30-character	crs:Char30_Type	Optional

Element	Attribute	Size	Input Type	Requirement
GeneralSuffix		30-character	crs:Char30_Type	Optional

3.4 Address_Type

There are two options for Address type in the schema – AddressFix and AddressFree. AddressFix should be used unless the FI cannot define the various parts of the account holder's address.

This data element is the permanent residence address of the Individual Account Holder or Controlling Person. If the FI does not have a permanent residence address on file for the individual, then the address is the mailing address used by the FI to contact the Individual Account Holder or Controlling Person when the report is compiled.

Element	Attribute	Size	Input Type	Requirement
CountryCode		2-character	iso:CountryCode_Type	Validation

This data element provides the country code associated with the account holder's address. For undocumented accounts, the code "MO" will be used as no address is available. As the address requires another data item to be completed, then "undocumented" could be used instead of an actual address.

Element	Attribute	Size	Input Type	Requirement
AddressFree			crs:AddressFree_Type	Optional*

This data element allows input of address information in free text. If the user chooses the option to enter the data required in a less structured way in "AddressFree", all available address details shall be presented in multiple lines of a maximum of 5. *This option should only be used if the data cannot be presented in the AddressFix format.

Element	Attribute	Size	Input Type	Requirement
Line		150-character	crs:Char150_Type	Optional

At least one line should be provided if user chooses to enter the data in "AddressFree".

If the FI selects AddressFix, it will have the option of inputting the full street address of the account holder in the AddressFree element rather than using the related fixed elements. In this case, the city, subentity, and postal code information should still be entered in the appropriate fixed elements.

Element	Attribute	Size	Input Type	Requirement
AddressType	legalAddressType		crs:OECDLegalAddressType_EnumType	Optional

OECDLegalAddressType_EnumType

This is a datatype for an attribute to an address. It serves to indicate the legal character of that address (residential, business etc.)

The possible values are:
* OECD301 = residentialOrBusiness
* OECD302 = residential
* OECD303 = business
* OECD304 = registeredOffice
* OECD305 = unspecified

Element	Attribute	Size	Input Type	Requirement
Street		100-character	crs:Char100_Type	Optional

Element	Attribute	Size	Input Type	Requirement
BuildingIdentifier		70-character	crs:Char70_Type	Optional

Element	Attribute	Size	Input Type	Requirement
SuiteIdentifier		40-character	crs:Char40_Type	Optional

Element	Attribute	Size	Input Type	Requirement
FloorIdentifier		20-character	crs:Char20_Type	Optional

Element	Attribute	Size	Input Type	Requirement
DistrictName		70-character	crs:Char70_Type	Optional

Element	Attribute	Size	Input Type	Requirement
POB		70-character	crs:Char70_Type	Optional

Element	Attribute	Size	Input Type	Requirement
PostCode		35-character	crs:Char35_Type	Optional

Element	Attribute	Size	Input Type	Requirement
City		70-character	crs:Char70_Type	Validation

Element	Attribute	Size	Input Type	Requirement
CountrySubentity		70-character	crs:Char70_Type	Optional

The above data elements comprise the AddressFix type. The "City" data element is required to be reported. The PostCode should always be included where it exists. Information pertaining to the account holder's street address may be entered here or in the AddressFree data element.

3.5 BirthInfo

Element	Attribute	Size	Input Type	Requirement
BirthDate			xsd:date	Optional (Mandatory)

This data element identifies the date of birth of the Individual Account Holder or Controlling Person. The date of birth may be left empty when it is not required to be reported. This may occur for Pre-existing Accounts if the date of birth is not available in the records of the FI. However, the FI is required to collect such information by the end of the second calendar year following the year in which such accounts were identified as Reportable Accounts.

The date format is YYYY-MM-DD.

The three data elements below apply specifically to the place of birth.

Element	Attribute	Size	Input Type	Requirement
City		70-character	crs:Char70_Type	Optional

Element	Attribute	Size	Input Type	Requirement
CitySubentity		70-character	crs:Char70_Type	Optional

Element	Attribute	Size	Input Type	Requirement
CountryInfo				Optional

This data element gives a choice between a current jurisdiction (identified by 2-character country code) and a former jurisdiction (identified by name). One or other should be supplied if place of birth is reported, together with City or City and CitySubentity.

Element	Attribute	Size	Input Type	Requirement
CountryCode		2-character	iso:CountryCode_Type	Optional

Element	Attribute	Size	Input Type	Requirement
FormerCountryName		70-character	crs:Char70_Type	Optional

When an account holder's country of birth does not have an ISO country code the name of that country at the time of the account holder's birth can be entered here.

Section 4   Entity Account Holder Details (OrganisationParty_Type)

This complex type identifies the name of an Account Holder that is an Entity as opposed to an Individual.

It is comprised of the following four data elements:

Element	Attribute	Size	Input Type	Requirement
ResCountryCode		2-character	iso:CountryCode_Type	Validation

Element	Attribute	Size	Input Type	Requirement
IN			crs:OrganisationIN_Type	Optional (Mandatory)

Element	Attribute	Size	Input Type	Requirement
Name			crs:NameOrganisation_Type	Validation

Element	Attribute	Size	Input Type	Requirement
Address			crs:Address_Type	Validation

4.1 Residence Country Code

Element	Attribute	Size	Input Type	Requirement
ResCountryCode		2-character	iso:CountryCode_Type	Validation

This data element describes the tax residence country code for the organisation being reported upon.

4.2 Entity IN (OrganisationIN_Type)

Element	Attribute	Size	Input Type	Requirement
IN		80-character	crs:Char80_Type	Optional (Mandatory)

This data element provides the identification number (IN) used by the residence jurisdiction to identify the Entity Account Holder. This may be the business registration number (BRN), US GIIN, a TIN, company registration number, Global Entity Identification Number (EIN) or other similar identifying number specified by the tax administration. Where IN is not available for a Pre-existing Account in the records of the FI, this may be left blank. However, the FI is required to collect such information by the end of the second calendar year following the year in which such accounts were identified as Reportable Accounts.

This data element can be repeated if a second IN is present.

Element	Attribute	Size	Input Type	Requirement
IN	issuedBy	2-character	iso:CountryCode_Type	Optional (Mandatory)

This attribute describes the jurisdiction that issued the IN. If the issuing

jurisdiction is not known then this may be left blank.

Element	Attribute	Size	Input Type	Requirement
IN	INType	30-character	crs:Char30_Type	Optional

This attribute defines the type of identification number being sent, e.g. BRN, US GIIN, EIN, TIN.

4.3 Organisation Name

Element	Attribute	Size	Input Type	Requirement
Name		120-character	crs:Char120_Type	Validation

This is the legal name of the entity that is being reported on.

Element	Attribute	Size	Input Type	Requirement
Name	nameType		crs:OECDNameType_EnumType	Optional

4.4 Address_Type

Element	Attribute	Size	Input Type	Requirement
Address			crs:Address_Type	Validation

This data element identifies the address of the Entity Account Holder. Please refer to paragraph 3.4 for details.

E   Guidance on Correction of Data

1.   If a FI discovered that there are errors or omissions in the data file(s) after submission, the FI has to submit a new data file to rectify the situation. This section describes how to make automatic corrections by sending a file of corrected data through the FI's AEOI Account. Reference to corrections in the following paragraphs also includes deletion of data elements.

2.   In order to identify the elements to correct, the DocSpec_Type should provide the following necessary information.
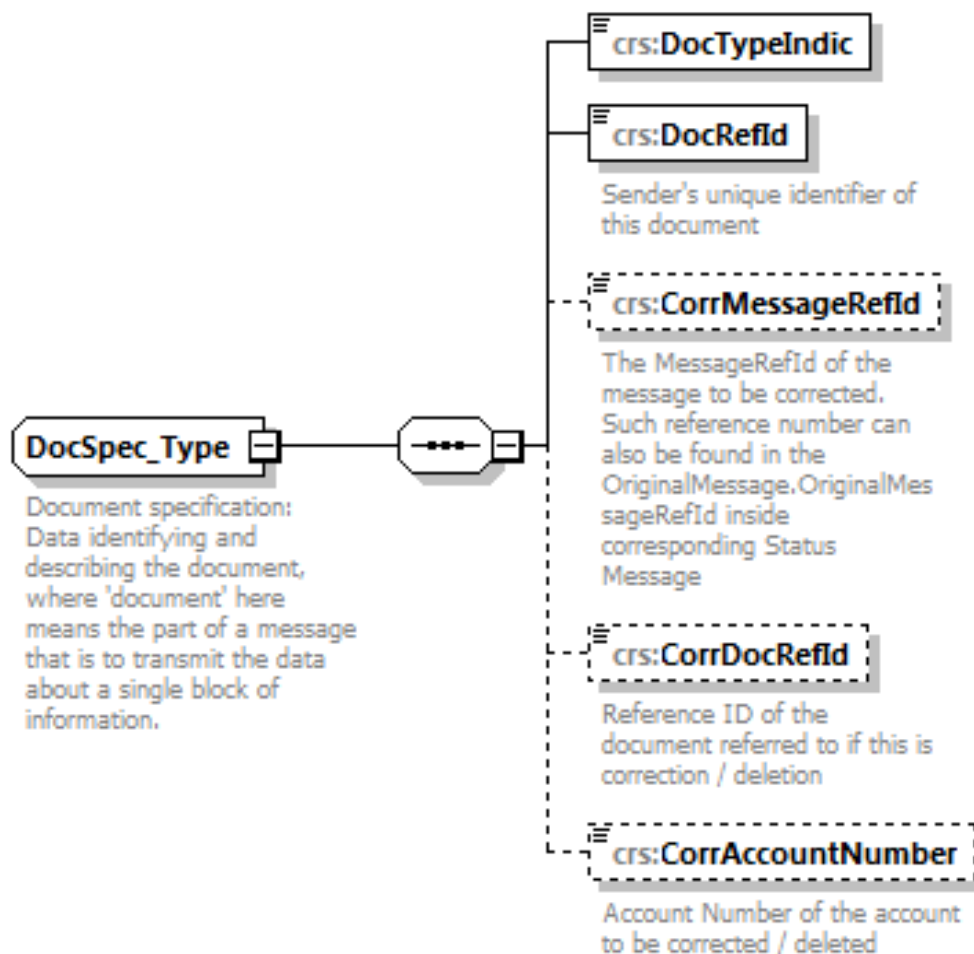
2.1 Document Type Indicator

Element	Attribute	Size	Input Type	Requirement
DocTypeIndic			crs:OECDDocTypeIndic_EnumType	Validation

For corrections of data items, the allowable entries are:

• OECD1 = New Data

   (for addition of data that have previously been omitted)

• OECD2 = Corrected Data

   (for correction of data that had been incorrectly reported)

• OECD3 = Deletion of Data

   (for deletion of data that should not have been reported)

2.2 Document Reference ID

Element	Attribute	Size	Input Type	Requirement
DocRefId		40-character	crs:Char40_Type	Validation

A correction (or deletion) must have a new unique DocRefId for future reference.

2.3 CorrMessageRefId

Element	Attribute	Size	Input Type	Requirement
CorrMessageRefId		40-character	crs:Char40_Type	Optional

This element is required for Corrected Data (OECD2) / Deletion of Data (OECD3) only, and is the MessageRefId of the message to be corrected. Such reference number can also be found in the OriginalMessage.OriginalMessageRefId inside corresponding Status Message.It must always refer to the latest reference of the MessageRefId that was sent.

If the CorrMessageRefId is not valid, the submission for correction / deletion of data will fail.

A CorrMessageRefId is not valid if:

• It does not correspond to a previously submitted message having a MessageSpec with a corresponding MessageRefId.

• The message to be corrected has already been rejected by FSB.

2.4 CorrDocRefId

Element	Attribute	Size	Input Type	Requirement
CorrDocRefId		40-character	crs:Char40_Type	Optional

This element is required for Corrected Data (OECD2) / Deletion of Data (OECD3) only. The CorrDocRefId identifies the DocRefId of the element to be

corrected / deleted. It must always refer to the latest reference of this DocRefId that was sent. The data contents of DocRefId are case insensitive, those differ only in letter case are considered to be the same.

If the CorrDocRefId is not valid, the submission for correction / deletion of data will fail.

A CorrDocRefId is not valid if:

- It does not correspond to a previously submitted element having a DocSpec with a corresponding DocRefId.

- The element to be corrected has already been deleted by an OECD3 report.

- The Return Year of the message containing the corrected element is not the same as the Return Year of the message containing the correction.

- There is another correction within the same message which corrects the same previously submitted element.

2.5 CorrAccountNumber

Element	Attribute	Size	Input Type	Requirement
CorrAccountNumber		72-character	crs:Char72-Type	Optional

This element is required for Corrected Data (OECD2) / Deletion of Data (OECD3) only, and is the Account Number of the account to be corrected / deleted.

If the CorrAccountNumber is not valid, the submission for correction / deletion of data will fail.

In this way, a series of corrections or amendments can be handled as each correction completely replaces the previous version. The correction examples below show how this works in practice.

3. MessageRefId and Corrections

Correction messages will have their own unique MessageRefId so they can also be corrected in the future. Such reference number can also be found in the OriginalMessage.OriginalMessageRefId inside Status Message.

4. Correction Examples

The following two examples show how the DocSpec_Type elements are used to correct one or multiple parts of data previously sent.

4.1 Example 1: A correction is made on the Payment amount

The correction file is sent from FI to FSB (containing only corrections, not a mix of new and corrected data).

For a Correction, the whole AccountReport must be resent with all its information (AccountNumber, AccountHolder, ControllingPerson, AccountBalance, Payment).
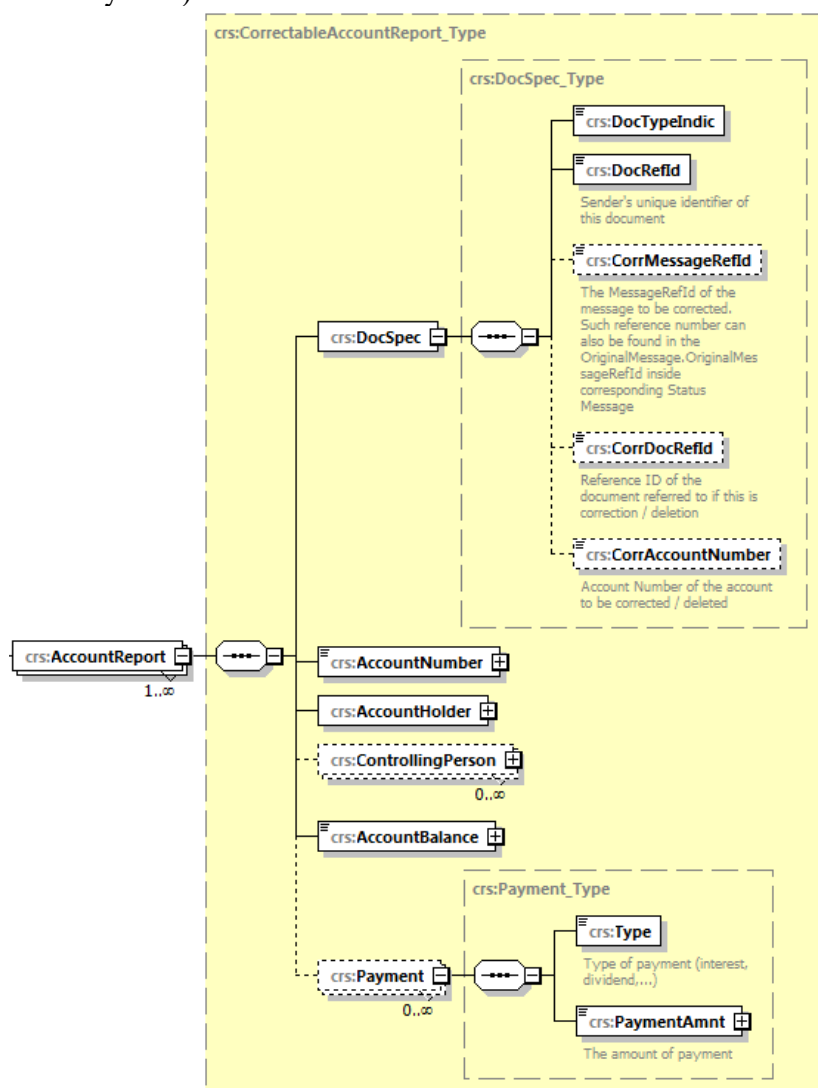
DocSpec indicates a correction.

DocTypeIndic:
OECD2=Corrected Data

DocRefId: 00001288
A correction must have a new DocRefId for future reference.

CorrMessageRefId:
20170012220170619142050000
CorrMessageRefId can also be found in the OriginalMessage.OriginalMessageRefId inside Status Message

CorrDocRefId: 00001234
References the DocRefId of the element to be corrected.

CorrAccountNumber:
002987654321
Account Number of the account to be corrected

The new payment amount MOP1000. Previously, a different amount was sent. All the AccountReport information is also resent.

4.2 Example 2: A correction is made on multiple information: on the name, address and payment amount

The correction is made on the previous correction (so it must reference the latest DocRefId: 00001288).
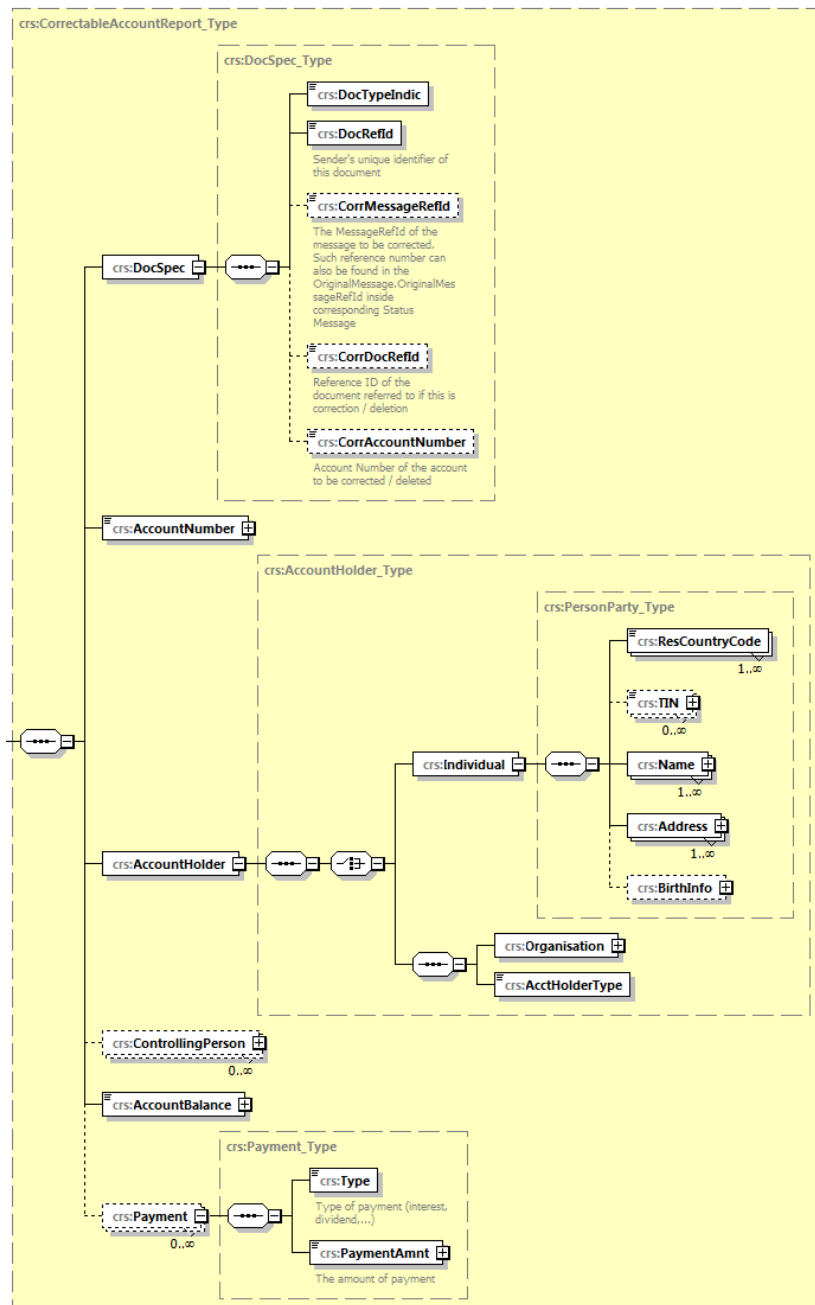
DocTypeIndic:
OECD2=Corrected Data

DocRefId: 00001306
A correction must have a new DocRefId for future reference.

CorrMessageRefId:
20170012201707291521100
CorrMessageRefId can also be found in the OriginalMessage.OriginalMessageRefId inside Status Message

CorrDocRefId: 00001288
Always references the latest DocRefId.

CorrAccountNumber:
002987654321
Account Number of the account to be corrected

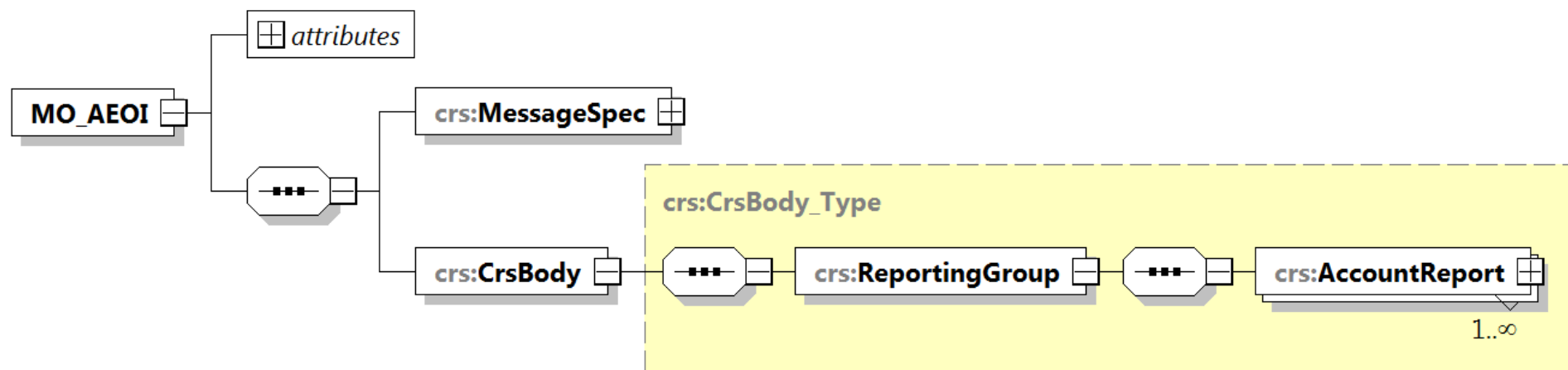All the AccountReport information is resent, with the new name, address and payment amount.

Automatic Exchange of Information
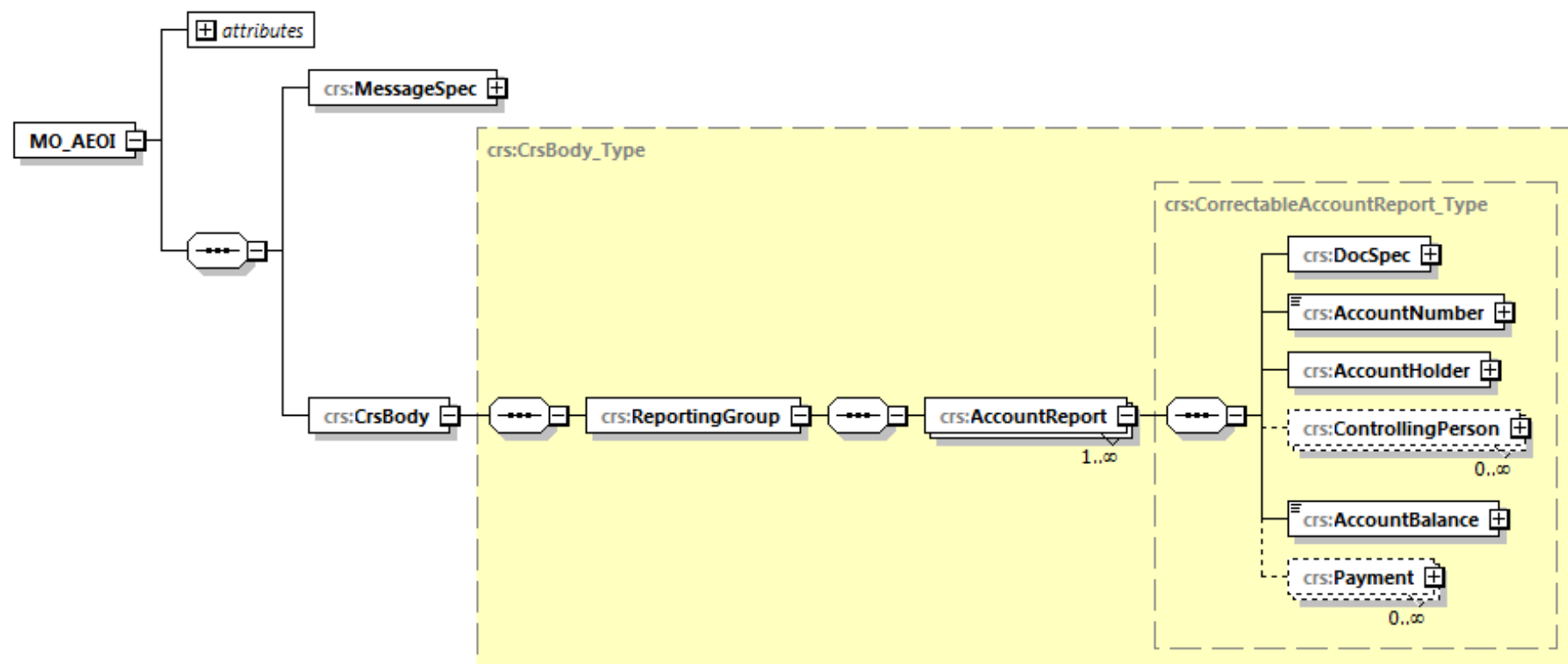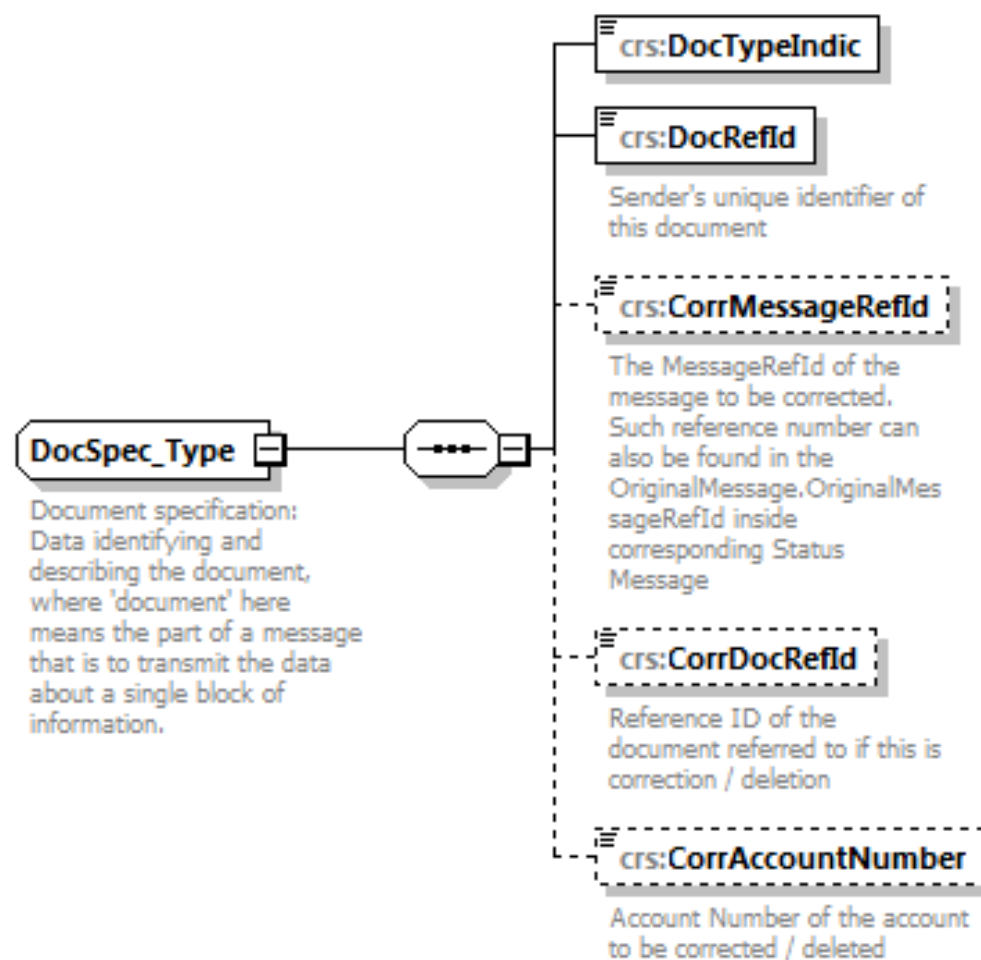XML Schema v1.3 Diagrams
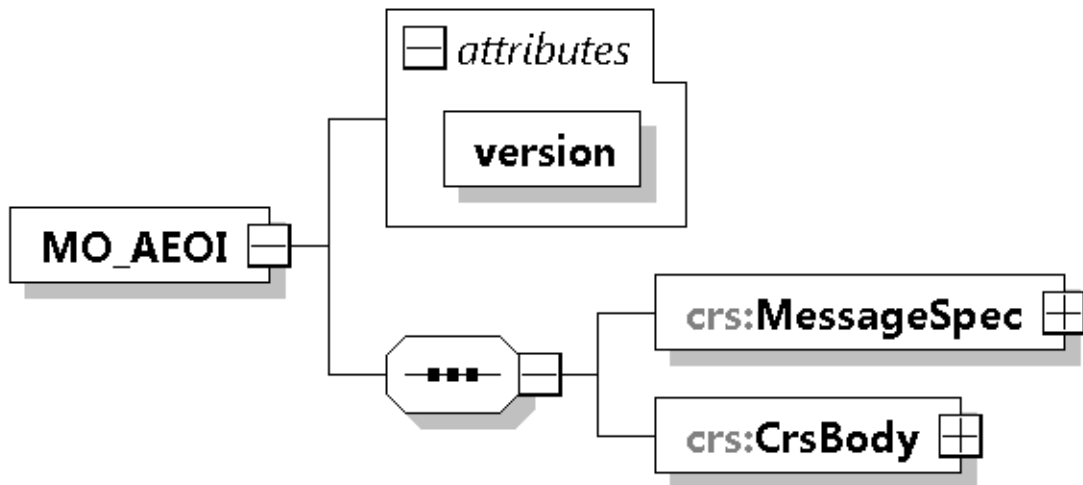
Message Header
(Section 1)
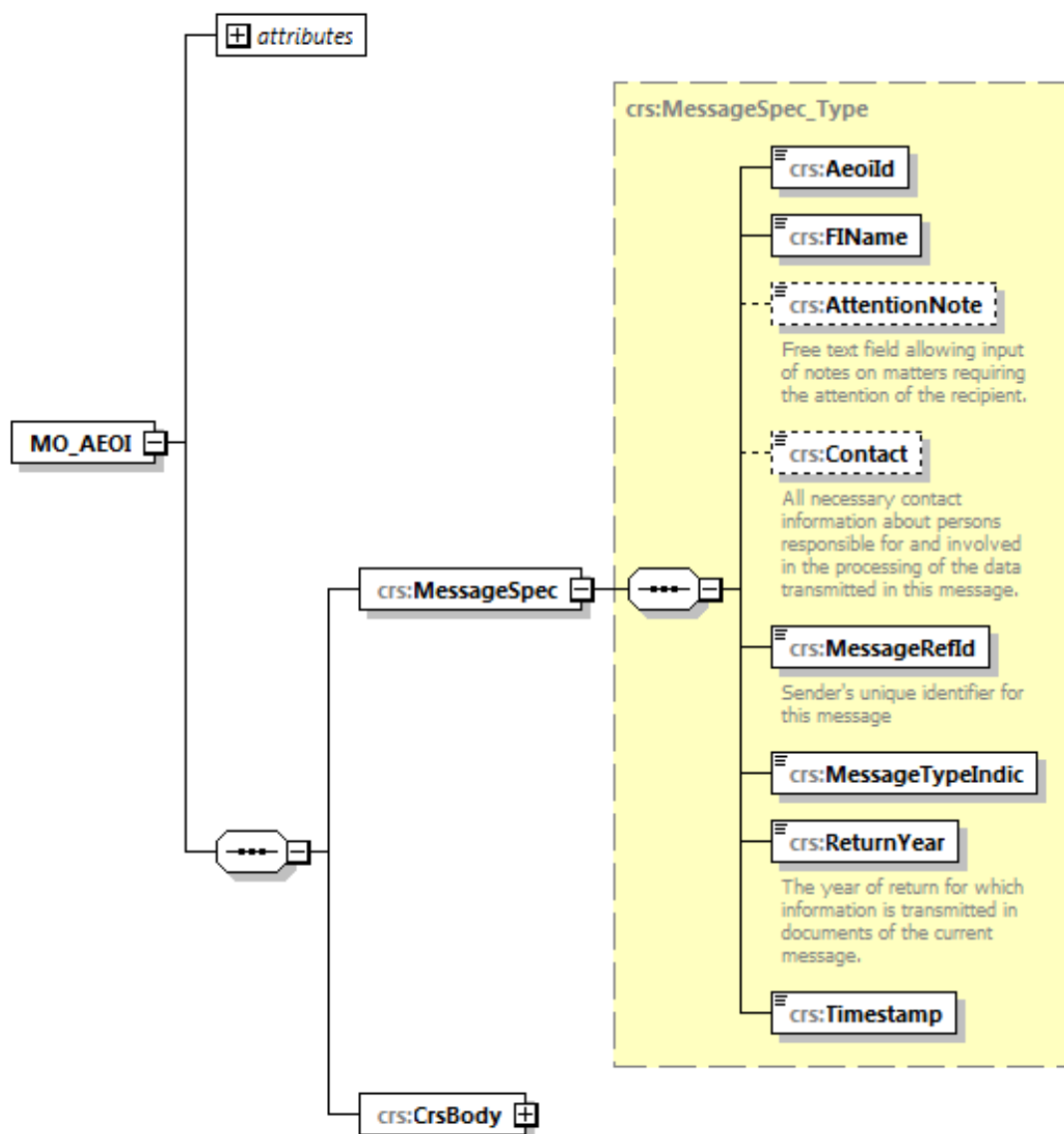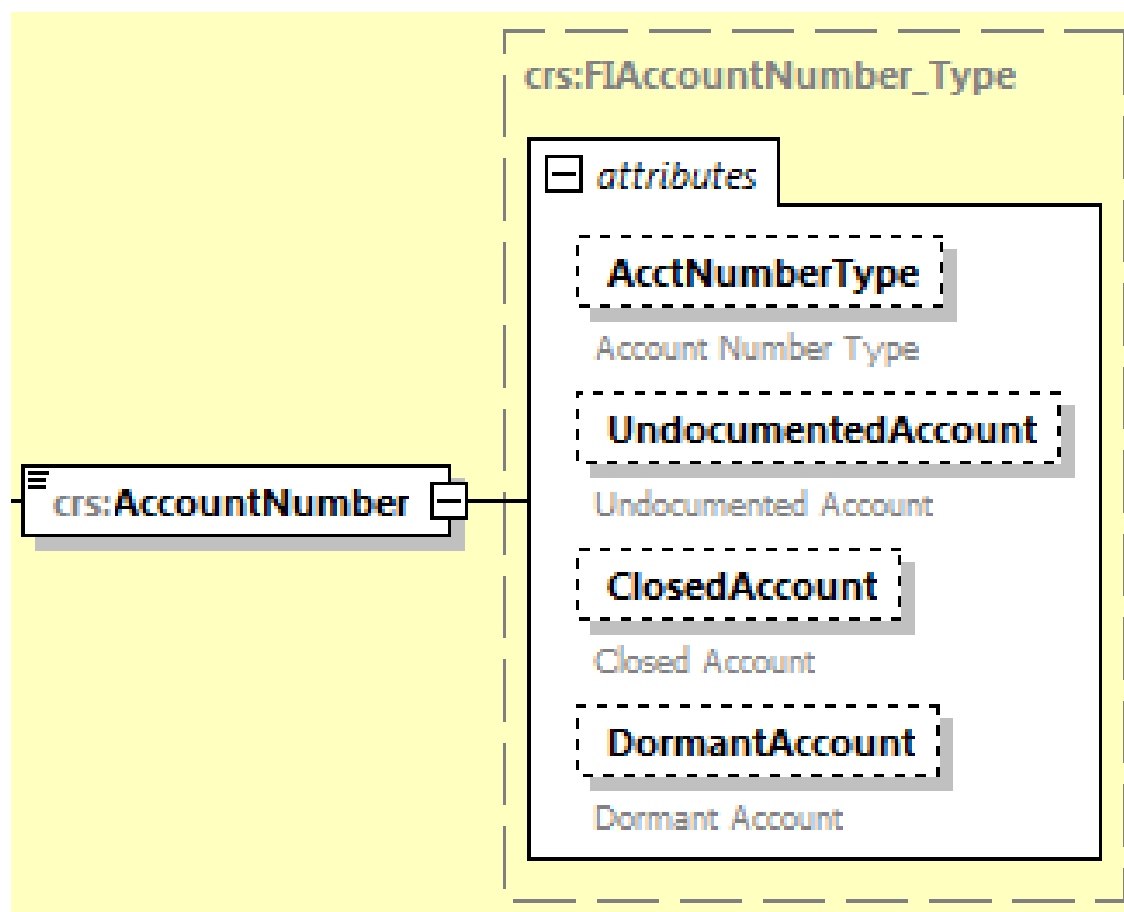
CRS Body

(Section 2)

Account Report

(Section 2.2)

Document Specification

(Section 2.2.1)

DocSpec_Type

Document specification: Data identifying and describing the document, where 'document' here means the part of a message that is to transmit the data about a single block of information.

crs:**DocTypeIndic**

crs:**DocRefId**

Sender's unique identifier of this document

crs:**CorrMessageRefId**

The MessageRefId of the message to be corrected. Such reference number can also be found in the OriginalMessage.OriginalMes sageRefId inside corresponding Status Message

crs:**CorrDocRefId**

Reference ID of the document referred to if this is correction / deletion

crs:**CorrAccountNumber**

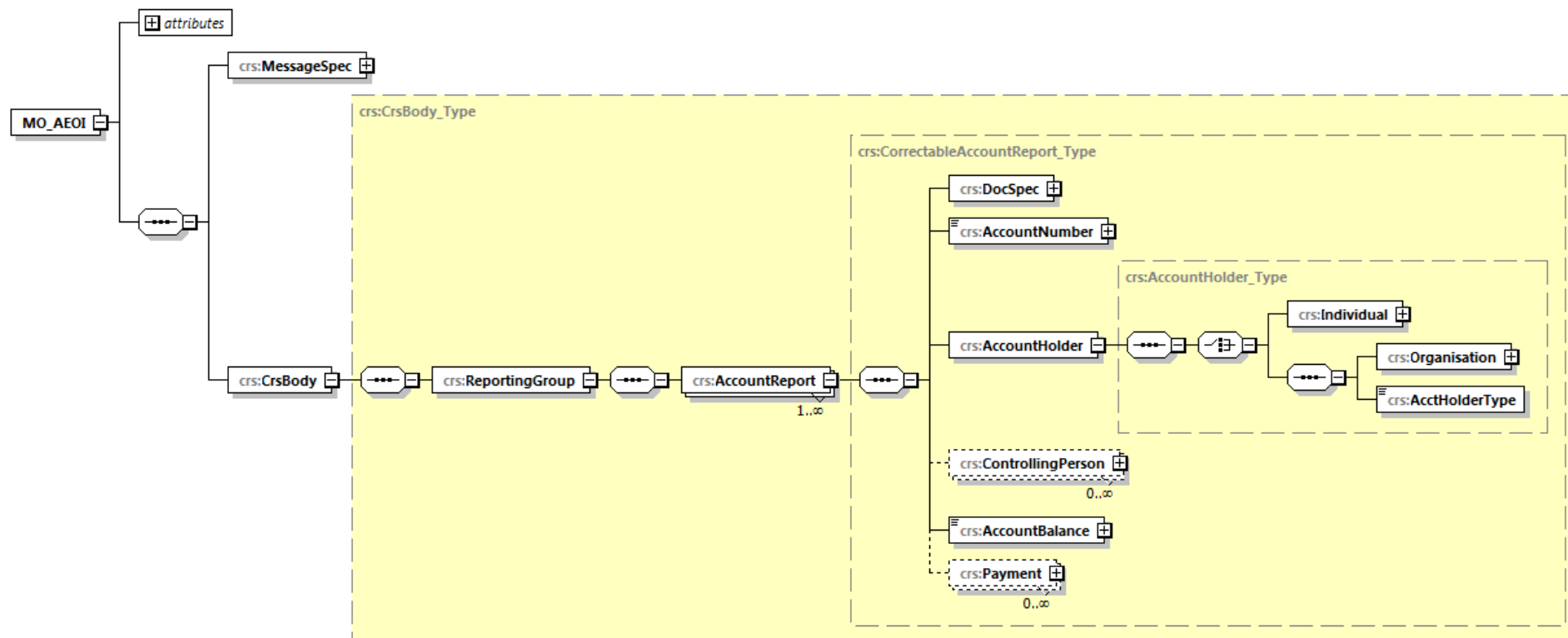Account Number of the account to be corrected / deleted

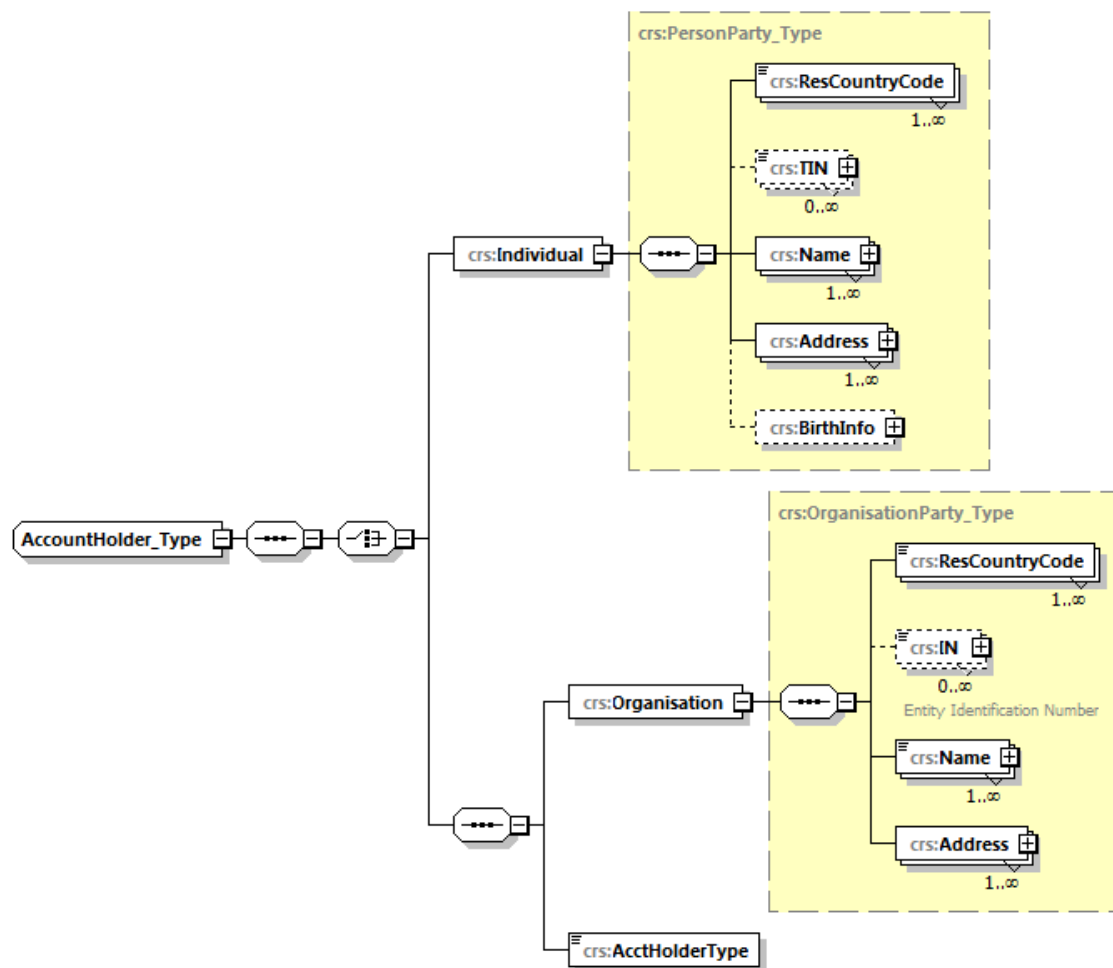Account Number Type

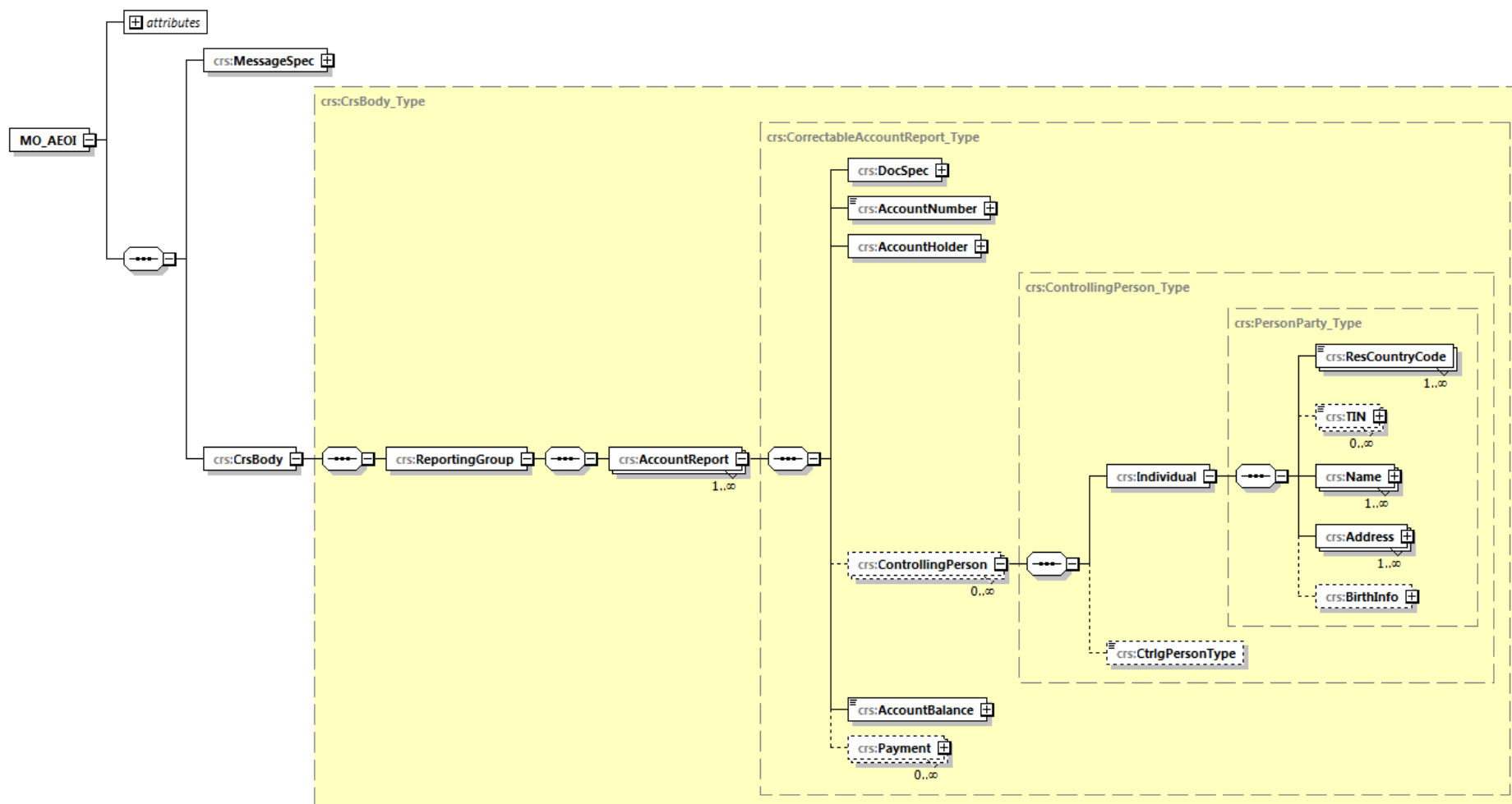(Section 2.2.2)

Account Holder

(Section 2.2.3)
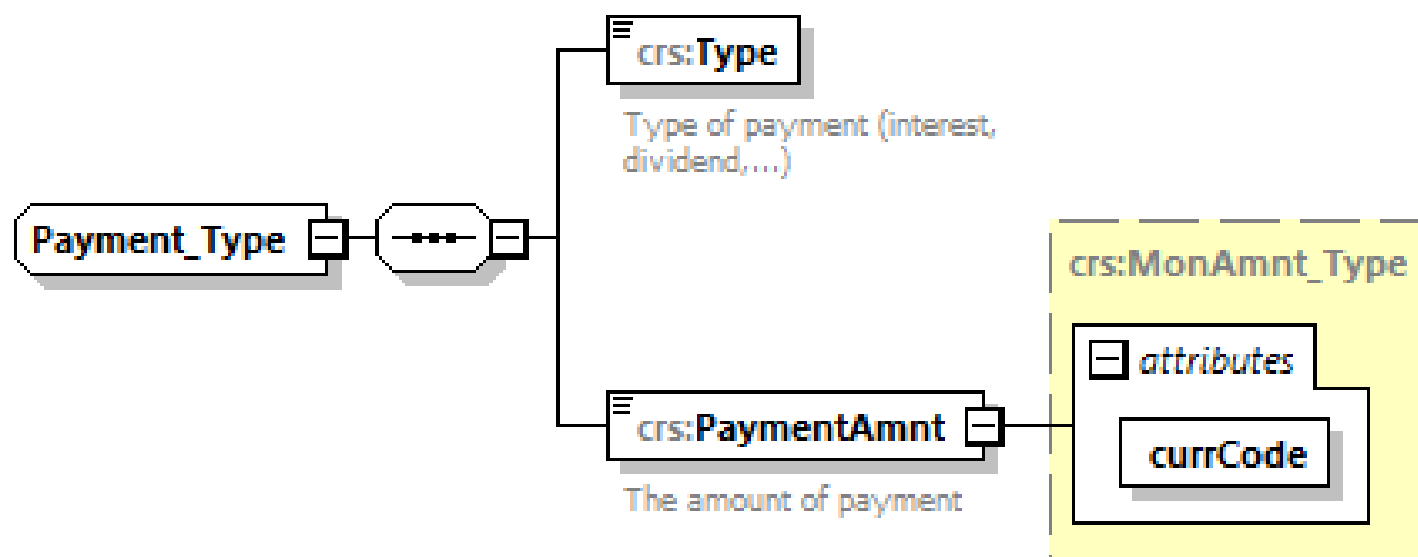
Individual/Organisation Account Holders
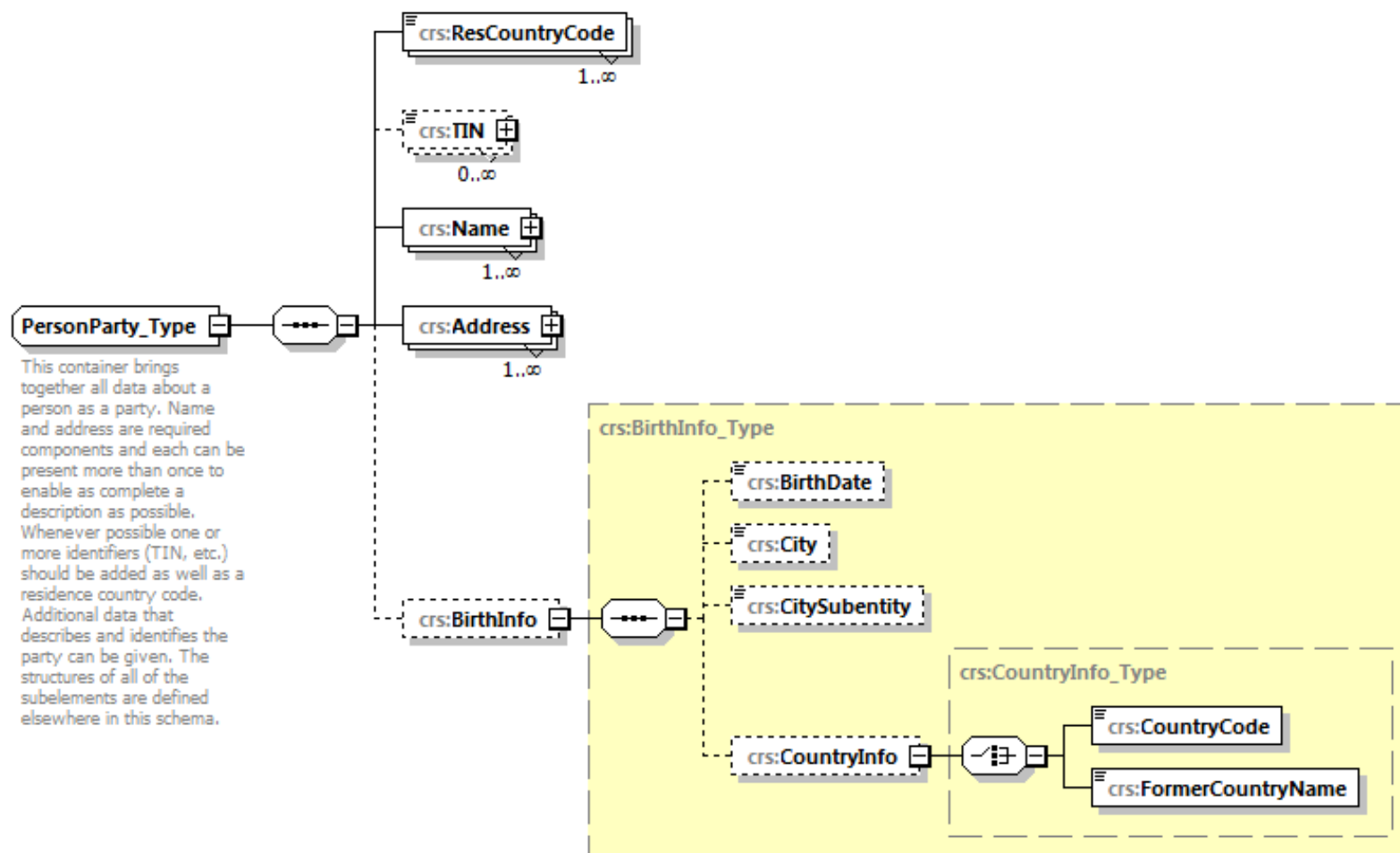
(Section 2.2.3)
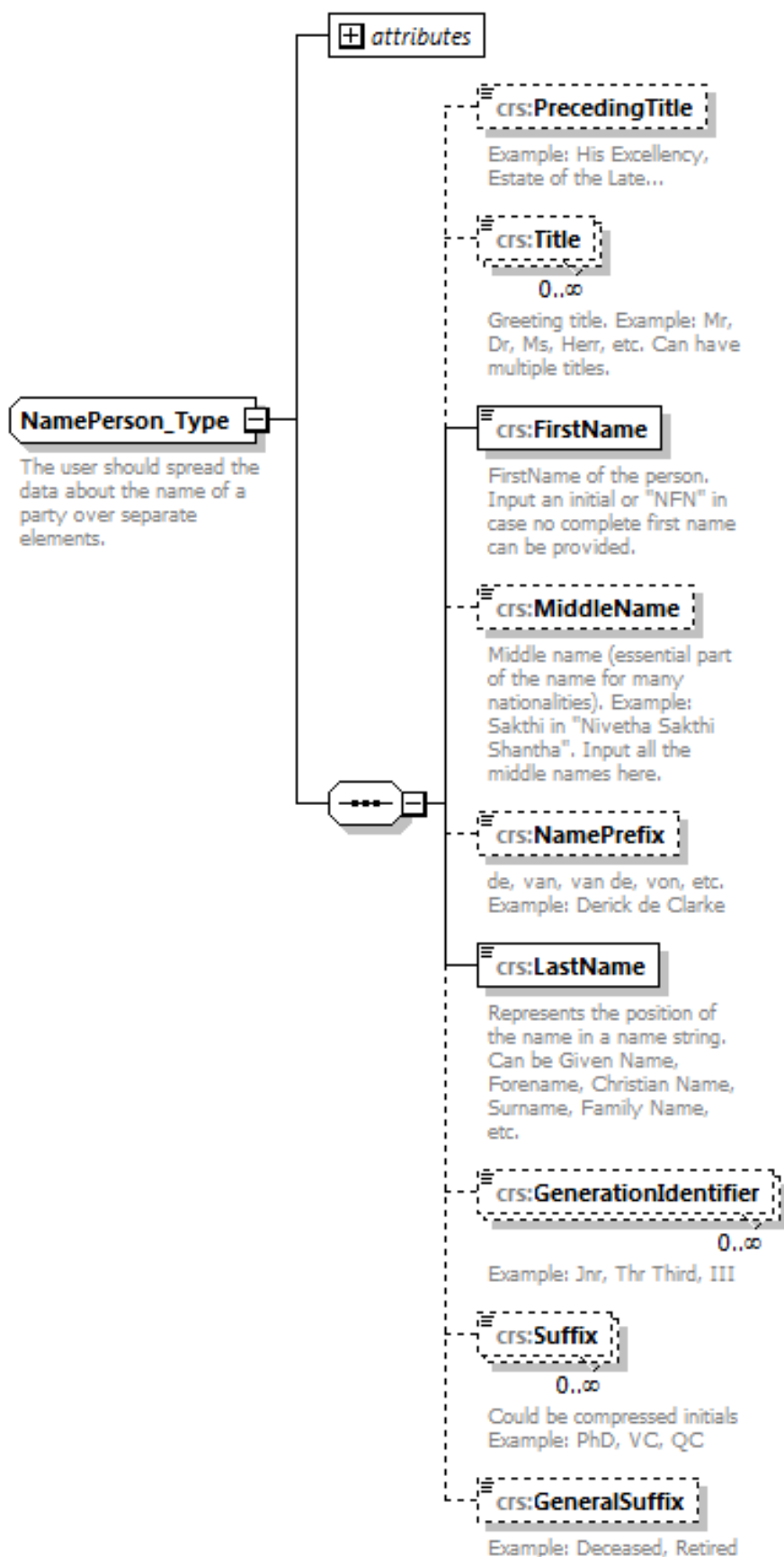
Controlling Person

(Section 2.2.4)

Payment Type

(Section 2.2.6)

Person Party Type

(Section 3)

Person Name Type

(Section 3.3)
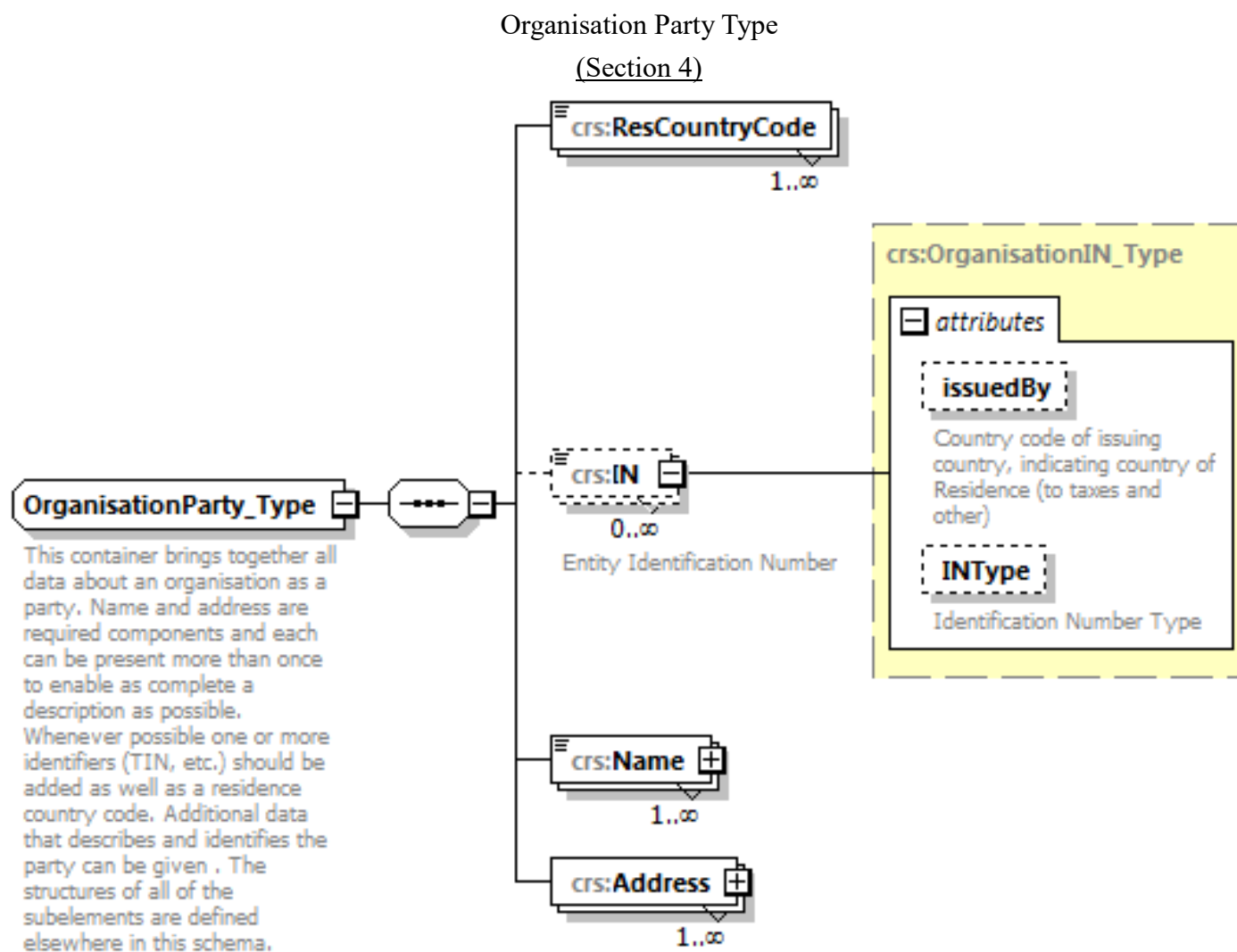
| | attributes |

NamePerson_Type

The user should spread the data about the name of a party over separate elements.

crs:**PrecedingTitle**

Example: His Excellency, Estate of the Late...

crs:**Title**

0..∞

Greeting title. Example: Mr, Dr, Ms, Herr, etc. Can have multiple titles.

crs:**FirstName**

FirstName of the person. Input an initial or "NFN" in case no complete first name can be provided.

crs:**MiddleName**

Middle name (essential part of the name for many nationalities). Example: Sakthi in "Nivetha Sakthi Shantha". Input all the middle names here.

crs:**NamePrefix**

de, van, van de, von, etc. Example: Derick de Clarke

crs:**LastName**

Represents the position of the name in a name string. Can be Given Name, Forename, Christian Name, Surname, Family Name, etc.

crs:**GenerationIdentifier**

0..∞

Example: Jnr, Thr Third, III

crs:**Suffix**

0..∞

Could be compressed initials Example: PhD, VC, QC

crs:**GeneralSuffix**

Example: Deceased, Retired

Address Type

(Section 3.4)

Organisation Party Type

(Section 4)

Appendix B

Examples of Errors within the Message

1. **Incorrect AEOI ID**

    FI must use the AEOI ID issued by the FSB within the message. If the AEOI ID reported in the "AeoiId" element is incorrect, the submission will be rejected.

2. **Incorrect Return Year**

    The Return Year is the calendar year to which the message relates. Return Year before 2017, equal or after the current year will be rejected.

3. **Wrong record type**

    Before the submission deadline of a particular year, the AEOI FTP server only accepts data files with new data record for that year. The submission of data file will be rejected if it includes corrected data and / or deletion of data record. Correction / deletion of data record before the submission deadline should be done by uploading a new data file (containing all reportable accounts) for replacement.

4. **Wrong reference to previously submitted record when making correction / deletion of data after submission**

    If the Message Reference ID, the Document Reference ID and the Account Number of a particular data record are not matched or not found in the AEOI FTP server, the submission for correction / deletion of data will be rejected. It must always refer to the latest record that was sent to the AEOI FTP server.

5. **Wrong mixture of record type**

A message must contain either (i) New Data or (ii) Corrected Data and / or Deletion of Data, but should not contain a mixture of both (i) and (ii). Otherwise, the submission of data file will be rejected.

6. **TIN and date of birth of Individual Account Holder or Controlling Person**

By the end of the second calendar year following the year in which the accounts were identified as Reportable Accounts, the FI is required to collect TIN(s) and date of birth of the Individual Account Holder(s) or Controlling Person(s) with respect to Preexisting Accounts. If FIs failed to report the required information, FIs will be requested to tidy-up the errors.

Appendix C

Imported Schema - ISO enumerations

isocrstypes_v1.0.xsd

1. The above schema holds the enumerations (basically a list) of countries / jurisdictions and the international standard two letter character codes for each of those countries / jurisdictions. The list is based on the ISO 3166-1 Alpha 2 country list[1] which is currently used by banks and other financial institutions, and hence by tax administrations. FIs can select a two character code to include in the XML message rather than input a long description of the country.

2. It also holds the three character international code for currencies (based on the ISO 4217 Alpha 3 currency list1 which is currently used by banks and other financial institutions, and hence by tax administrations). This is used when specifying any monetary amount in the XML message.

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[1] The use of this list does not imply the expression of any opinion whatsoever concerning the legal status of the territories listed. Its content is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.