

Minutes ETC meeting, May 14th, 2018	 European forum for energy Business Information eXchange
May 21 st , 2018	ETC – ebIX® Technical Committee

Minutes ETC meeting, May 14th, 2018

Date: Monday May 14th, 2018
Time: 09:00 –17:00
Place: Rotterdam, the Netherlands.
Present: Jan Owe, Svenska kraftnät
Kees Sparreboom, TenneT
Seweryn Sobieszek, Innogy Stoen Operator

Appendices: **Appendix A**, ebIX® Rules for the use of UN/CEFACT Modelling Methodology (UMM 2)
Appendix B, ebIX® Rules for addressing (routing)
Appendix C, Agreed additions to the ebIX® Business Information Model 2018.A
Appendix D, MDS proposals to ETC for update of the ebIX® Business Information Model
Appendix E, XML documents from TT
Appendix F, What levels are different “standards” covering

Attachment (see ebIX® file manager):

1. Modeling for European Electricity Market for ETC 20180226.pptx: See item 3.1
2. Core Components for European Electricity Market for ETC 20180226.pptx: See item 3.1
3. Status of liaison activities between IEC and ebIX 20180514.pptx, see item 3.2
4. HRM_MR_Gateway operator & Communication Gateway - ebIX 20171116.docx: See item 5
5. MR Party Admin - 20180227.docx: See item 6
6. Business Reason Codes and Document Name Codes 20171017.docx, see item 7.2
7. Technical presentation.pptx: See item 15

1 Approval of agenda

The agenda was approved with the following additions:

- Status presentation for IEC TC57 plenary in Calgary, Canada 19th/20th June 2018, see item 3.2.
- Request from MDS, see item 19.1 under AOB
- Follow NDR / CCTS 3.0, 2.1 - or something else?, see item 19.2 under AOB

2 Minutes from previous meetings

The item was postponed until next meeting.

3 Status: ebIX®/IEC project

3.1 The concept of CCs or inheritance

Action from previous meeting:

- Kees will ask Christian Huemer if he has any views regarding:
 - The concept of CCs or inheritance;

- How to specify data types in the CIM packages and the CIM profiles – could they be different, i.e. restricted in the profile?

See also PowerPoint presentations from Kees at the ebIX® File Manager.

Result so far:

- Kees has asked Christian, the answer is positive. However, Christian did not know of any others doing something similar. But he is interested and is talking with others. Kees will come back to Christian.

The item will be continued.

During this item we discussed the current suggestions, from the meeting with Greta and Maurizio in Brussels in November 2017, of adding a class “method” to CIM – to handle the Settlement method etcetera. However, it was suggested to have a class in basic CIM with all three attributes, and just a more generic ACC with “method”. In the ABIE it would then be three attributes, and in an MBIE what is relevant for a specific exchange (e.g. SettlementMethod may be required, but not all three attributes).

Action:

- Jan will make some slides, which could be shown at the IEC WG16-meeting in Paris, describing the suggestion of adding a class “method” to CIM.

3.2 Status presentation for IEC TC57 plenary in Calgary, Canada 19th/20th June 2018

Vlatka has received the following request from IEC and asks Jan to prepare a status report in ETC:

Dear Ms Cordes,

the IEC TC57 plenary will be held in Calgary, Canada on 19th/20th June 2018.

The presentation of the status of liaison activities is of high interest for national committees and delegates and therefore is an important part of the meeting.

For this purpose, I kindly ask you as TC57's liaisons contact for preparing and - if possible - presenting a brief report on the liaison (status of relationship, current and planned activities) at the plenary meeting. If you should not be able to participate in person, we could delegate this to another attendee or chairman/secretary. In this case a proposal is highly appreciated.

I would be glad if you could send me your contribution on the TC57 liaison with **ebIX®** by **Friday, 1st June 2018** and indicate if you will be able to present it.

If you need further information or support, please let me know.

Many thanks for your support and contribution to the TC57 plenary!

Best Regards

Dr. Heiko Englert / Secretary IEC TC57

Conclusion:

- A draft has been made, see ebIX® file manager, and will (if needed) be updated just after the WG16 meeting in Paris. Then it will be sent in for the TC57 plenary.

4 Status My Energy Data

Action from previous meeting:

- Kees will send a mail to WG16 asking for the topic and scope for the WG “EUMED”. In addition, Kees will ask for focus on “Customer consent” instead of exchange of measured data.

Result:

- Kees sent an email to Eric Lambert. The reply from him was that the work is in line with the NWIP, so the focus is still on “measured data”.
- In MDS the Customer consent was discussed, and progress was made. The conclusion is that there is a generic part, and a specific part. Other industries are interested in the generic part. The specific part for energy is limited. More important is to verify that Mr X is Mr X and no-one else, such things are independent of industry. MDS will avoid the generic part.
- The current work within My Energy Data will be presented and discussed in Paris. The result will be available within IEC 62325-451-10.

5 Status: HG MR for “MP Gateway” (if the concept is finally defined in the German market)

The item was postponed until next meeting.

6 Status: HG MR for “Party Administrator”

Ove had as action from previous meeting sent the MR for “Party Administrator” to the HG. However, the item was postponed at the HG meeting in April. A status will be added to next ETC meeting agenda.

7 ebIX® Business Information Model 2018.A

7.1 Continue review and update of version 2018.A

Proposed updates are found in Appendix C.

The item was postponed until next meeting.

7.2 MDS requests for new and updated enumerations

See requests in Appendix D.

The item was postponed until next meeting.

7.3 How to represent the exchange of calorific value in ABIEs

The item was postponed until next meeting.

7.4 QA of the ebIX® model

The item was postponed until next meeting.

7.5 Code lists

The item was postponed until next meeting.

7.6 Use of XOR in combination with cardinalities

The item was postponed until next meeting.

7.7 Magic Draw version 18.2, ebIX® model 2018.A, ebIX® “standard messages”, etc.

The item was postponed until next meeting.

7.8 Upgrade of MagicDraw

All that are using MagicDraw (MD) were as action from previous meeting asked to inform Ove which version they are using and if they will have a problem if we upgrade to the latest MD version, i.e. version 18.5 SP3. The same question was raised within MDS. The following responses have been received:

Responder	Current version	Response
Atrias	MagicDraw 18.2	Belgium will migrate to EA, but has a MD licence that will last until the end of this year. Belgium has no problems with ebIX® upgrading.
BDEW	MagicDraw 17.?	Can probably not read the current ebIX® model anyway and has no problems with an upgrade.
Fingrid	MagicDraw 18.3	Do not know if there will be any problems.
Svenska kraftnät	MagicDraw 18.5	Upgraded beginning of May, no problems yet.

7.9 “Time of Use” vs “Meter Time Frame”

The item was postponed until next meeting.

7.10 XML documents from TT

See issues in Appendix E.

The item was postponed until next meeting.

7.11 Split of MP Characteristics into Administrative- and Physical Characteristics

The item was postponed until next meeting.

7.12 Rules for UseCase colouring

The item was postponed until next meeting.

8 ebIX® Rules for the use of UN/CEFACT Modelling Methodology (UMM 2)

See question from Belgium in 0.

The item was postponed until next meeting.

9 MDS BIMs

The item was postponed until next meeting.

10 What levels are different “standards” covering

Background information is found in Appendix F.

The item was postponed until next meeting.

11 Update of ebIX® position related to addressing in business documents

See Appendix B, ebIX® Rules for addressing (routing).

The item was postponed until next meeting.

12 Code lists from Magic Draw model in Word format

The item was postponed until next meeting.

13 Planning for support for new countries that want to use the ebIX® model

The item was postponed until next meeting.

14 Status for update of the TT (Transformation Tool)

Action:

- Pawel will contact Pawel Lacinski at In4mates asking for the documentation;
- Kees will try contacting Peter (the second developer of the TT, from Cap Gemini) to see if he can be a candidate to come up with a documentation.

Results so far, contacts have been taken, or tried to, but no documentation available yet. Item will be continued.

15 Creation of an ebIX® technical presentation

The item was postponed until next meeting.

16 Status for UN/CEFACT project for Alignment of Master Data for Metering Point and of Measured Data

The project has been ended by UN/CEFACT. The item is closed.

17 Review of “ETC Participants” (see ebIX® File Manager)

The list was slightly modified. The item is kept.

Information from after the meeting:

- Because of GDPR, the participant list will be removed from the minutes, but be continued maintained at the ebIX® File manager.

18 Next meeting(s), including start and end time.

- Wednesday and Thursday September 5th and 6th, Warsaw.
- Wednesday and Thursday November 21st and 22nd, Amsterdam, after the ebIX® Forum.

19 AOB

19.1 Request from MDS

There is a need to do a QA of the MDS model and consistency of the MDS and EMD models, such as verify that the MP parties are linked to the MP instead of the “document”, to be in line with BIM and CIM.

The item was postponed until next meeting.

19.2 Follow NDR / CCTS 3.0, 2.1 - or something else?

The question before the meeting was if ebIX® should follow CCTS 3.0, since not even UN/CEFACT does that.

Conclusion:

- Even if UN/CEFACT follows CCTS 2.1 and ebIX® follows 3.0, we will not do any changes. The differences are not so big.

Appendix A ebIX® Rules for the use of UN/CEFACT Modelling Methodology (UMM 2)

Question from Thibaut regarding the tags ebIX used on <<ENUM>> stereotype:

In the document “**ebIX® Rules for the use of UN/CEFACT Modelling Methodology (UMM) version 2**” it is written the following:

UN/CEFACT has specified profiles to be used as the meta model for UMM2:

- UMM Base Module
- UMM Foundation Module
- UML Profile for Core Components

ebIX® has additionally specified a profile.

On page 27 we find the different available/used tags for the stereotype <<ENUM>>

(⁶ Rules for the use of UN/CEFACT Modelling Methodology (UMM) version 2 page 27)



But I find nowhere in UMM documentation anything about these tags for <<ENUM>>. The only information I found about <<ENUM>> was in the document “**UML Profile for Core Components (UPCC) – Version 1.0 – Final Specification - 2008-01-16**” but there not any tag is mentioned.

5.1.6 ENUM

Stereotype	ENUM			
Base Class	Enumeration (from UML 1.4.2 / 2.0 meta-model)			
Parent	N/A			
Description	The ENUM (Enumeration Type) represents an enumeration type. The ENUM stereotype is used to define a restriction on either a content- or supplementary component of a QDT.			
Tag Definitions	Tag Definition	Type	Multiplicity	Description
	N/A			

5.1.7 CodelistEntry

Stereotype	CodelistEntry			
Base Class	EnumerationLiteral (from UML 1.4.2 / 2.0 meta-model)			
Parent	N/A			
Description	The CodelistEntry is used to stereotype entries of an enumeration with stereotype ENUM.			
Tag Definitions	Tag Definition	Type	Multiplicity	Description
	CodeName	String	0:1	The CodeName carries the name of a certain code (like "France" in a country code list).

So I wanted to know where does these tags comes from as some of these are unknown in UPCC nor UMM2 profile in EA Sparx and I must have a good reason to ask to SparxSystems to adapt these profiles to what we have developed with ebIX®.

Response from Ove:

I do believe these tags are used by the TT. I also agree that the usage should be added to the "ebIX® Rules for the use of UN/CEFACT Modelling Methodology (UMM) version 2". I will add the topic to the next ETC agenda.

Response from Thibaut:

Indeed, these values are used for the TTool but I assume that these tags are coming from somewhere in UN/CEFACT.

In Naming and Design Rules v3 it is specified that Code list XSD must have as file name <Code List Agency ID>_<Code List ID> (unique ID) _<Version ID> so, means that we need this information for the code list inside the model... but I did not found any place where it is mentioned where we have to place this information for an code list (under a specified stereotype or not?)

[R 8A68]	A Code List XML Schema File MUST be created to convey code list enumerations for each code list being used.	1
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XML Naming and Design Rules V3.0

2009-12-17

[R B443]	<p>A Code List XML Schema File MUST be given a file name that represents the name of the code list and is unique within the namespace to which it belongs using the form:</p> <pre><Code List Agency Identifier>_<Code List Identifier>_<Code List Version Identifier>.xsd</pre> <p>Where:</p> <ul style="list-style-type: none"> • Code List Agency Identifier – Identifies the agency that maintains the code list. • Code List Identifier – Identifies a list of the respective corresponding codes. • Code List Version Identifier – Identifies the version of the code list. 	1
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When we do a migration test from MagicDraw to EA Sparx we have some values correctly put under the UPCC3 <<ENUM>> stereotype (in the example here under codeListName, languageCode, modificationAllowedIndicator), some values put under UPCC3 <<ValueDomain>> stereotype (uniqueID, versionID) and some values incorrectly put under the enumeration itself (codeListAgencyIdentifier, codeListIdentifier).

«ENUM»

- codeListAgencyIdentifier = "260"
- codeListIdentifier = "BEL"
- codeListName = "BE_MeterDisplayTechnology"
- languageCode = "EN"
- modificationAllowedIndicator = false
- uniqueIdentifier = "BE000012"
- versionIdentifier = "0.1.A"

«PRIM»

- languageCode = "EN"
- uniqueIdentifier = "BE000012"
- versionIdentifier = "0.1.A"

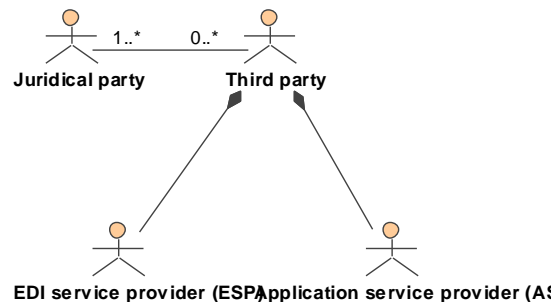
Tagged Values

Enumeration (BE_MeterDisplayTechnology)	
codeListAgencyIdentifier	260
codeListIdentifier	BEL
md_guid	_17_0_2_eac0340_1354810236249_960769_28495
UPCC3 - ENUMLibrary Abstract Syntax::ENUM (BE_MeterDisplayTechnology)	
businessTerm	
codeListAgencyID	
codeListAgencyName	
codeListID	
codeListName	BE_MeterDisplayTechnology
enumerationURI	
languageCode	EN
modificationAllowedIndic...	false
restrictedPrimitive	
status	
UPCC3 - ENUMLibrary Abstract Syntax::ValueDomain (BE_MeterDisplayTechnology)	
definition	
dictionaryEntryName	
minorVersionID	
revisionID	
uniqueID	BE000012
usageRule	
versionID	0.1.A

Appendix B ebIX® Rules for addressing (routing)

B.1 Definitions

- Juridical party:** A juridical party is the party juridical responsible for sending or receiving information.
- Party id:** The identification of a party, i.e. the party's GS1 location number or the party's EIC (Energy Identification Code).
- Third party:** A party acting on behalf of the juridical party (as an intermediate) in a message exchange scenario. In between the juridical parties there may be several third parties. These intermediates can have different responsibilities, such as routing of documents, conversions and/or handling of the document content on behalf of the juridical party. Intermediates only doing routing of messages will not be a part of the addressing principles discussed below. The third parties may be split into the following two subtypes:
- Application service provider (ASP):** A third party that takes care of the database (application) for a juridical party. The ASP is responsible for returning application acknowledgements.
- EDI Service Provider (ESP):** A third party that is responsible for the document exchange on behalf of the juridical party, including conversion of documents. The ESP is responsible for returning syntax related acknowledgements.



Relationship between roles in document exchange

A juridical party can choose whether or not to use one or more third parties in his document exchange. It is also possible to combine usage of third parties for one or more business areas and handle the document exchange himself for other business areas.

B.2 Principles for addresses and identifications

1. The juridical party may choose whether to use one or more third parties as intermediates in a document exchange scenario.
2. Routing of documents, including acknowledgements, shall use the same principles even if third parties are used.
3. The information in the "Header and Context Information" class may be used for routing purposes:

Header and Context Information	
+Document Type : DocumentNameCode [1]	q
+Business Reason : BusinessReasonCode [1]	q
+Ancillary Business Process Role : BusinessRoleCode [1]	p

4. It shall always be the juridical party, the party legally responsible for sending or receiving the information, that is identified in the document header level.
5. Acknowledgements of acceptance, such as EDIFACT/APERAK, shall be treated as any other document regarding the addresses. I.e. the sender address, including BPI (sub address) in the original document, shall be sent as receiver address in the application acknowledgement. And the receiver address, including BPI (sub address) in the original document, shall be sent as sender address in the application acknowledgement.¹
6. Acknowledgements of receipt, such as EDIFACT/CONTRL documents, shall be returned with opposite addresses. I.e. the sender address, including BPI (sub address) in the original document, shall be sent as receiver address in the syntax acknowledgement. And the receiver address, including BPI (sub address) in the original document, shall be sent as sender address in the syntax acknowledgement.²

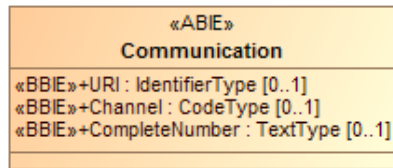
¹ Point 5 and 6 must be verified with ebIX® BRS for Acknowledgement

² Point 5 and 6 must be verified with ebIX® BRS for Acknowledgement

Appendix C Agreed additions to the ebIX® Business Information Model 2018.A

C.1 BIE changes, e.g. cardinalities

- 1) Add an attribute “Disconnection Contract” (Boolean) in MP Administrative Characteristics
- 2) Change the Country Name (text) in the MP Address class to Country (coded)
- 3) Add a new ABIE; Communication:



- 4) Rename the BBIE Unit Type in the ABIE Product Characteristics to Quantity Unit Type and add a BBIE Price Unit Type to the ABIE Product Characteristics
- 5) Verify that addition of an ASCC between the ACC Event and the ACC Address is on the list of ebIX® changes to UN/CCL
- 6) Add an ABIE Language Code to the ACC Address to the list of ebIX® changes to UN/CCL
- 7) Add a BBIE Type to the ABIE Metering Point Address

C.2 New enumerations and/or DT

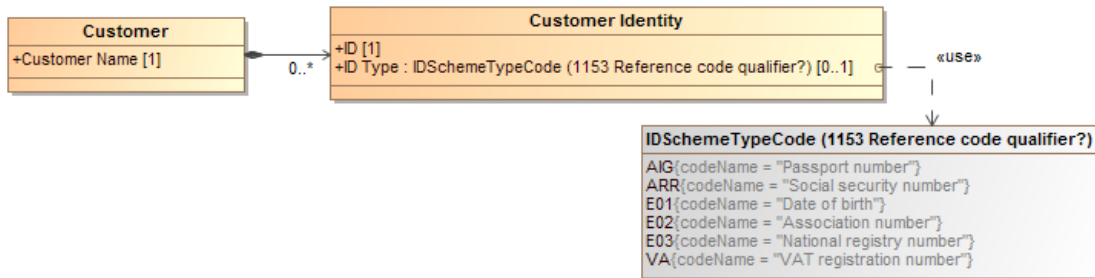
- 1) Add an enumeration for ISO Language codes, based on ISO 639-1988
- 2) Add an enumeration for Energy Label Fuel type, based on CENELEC standard, imported from Atrias implementation
- 3) Add an enumeration for Energy Label Technology type, based on CENELEC standard, imported from Atrias implementation
- 4) Add enumeration “Communication channel”, ebIX® subset with the following literals, based on 3155:
 - AL Cellular phone
 - EM Electronic mail
 - FX Telefax
 - TE Telephone
- 5) Add an enumeration “Communication channel”, ebIX® subset, based on 3131 Address type, code with the following literals:
 - 1 Postal address: The address is representing a postal address
 - 3 Physical address; The address represents an actual physical location.
- 6) Remove all predefined facets, such as maxLength
- 7) All code lists should be checked for codes without a code name. These should be given a name or deleted.

Appendix D MDS proposals to ETC for update of the ebIX® Business Information Model

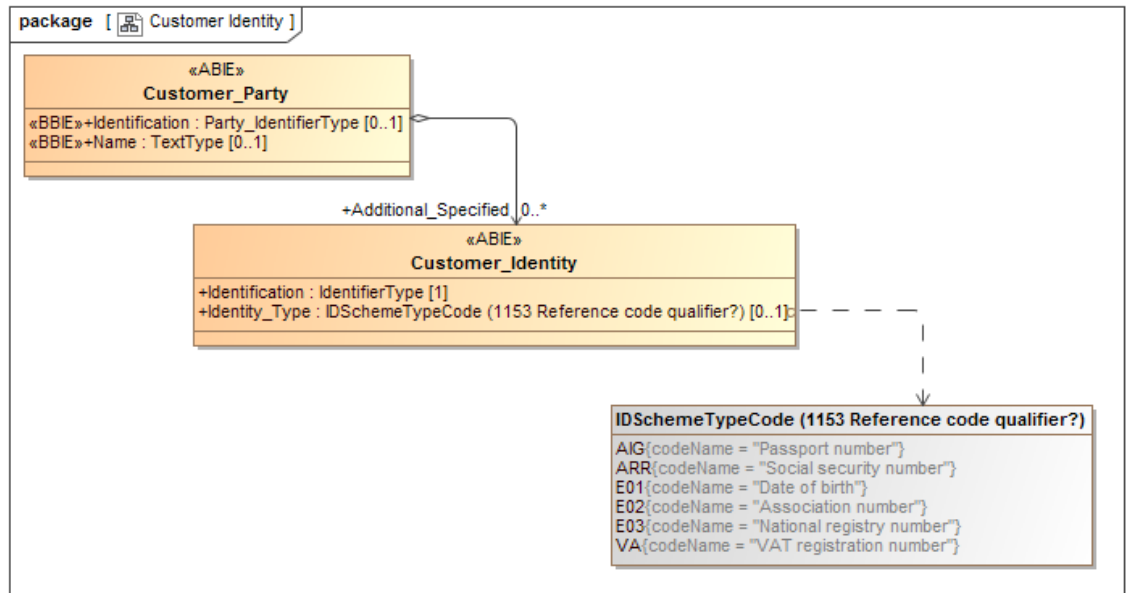
D.1 BRS for Alignment of characteristics for a Customer linked to a Metering Point

- a) Add the attribute “ID Scheme Type Code” to the ebIX® model.

As shown in the BRS:



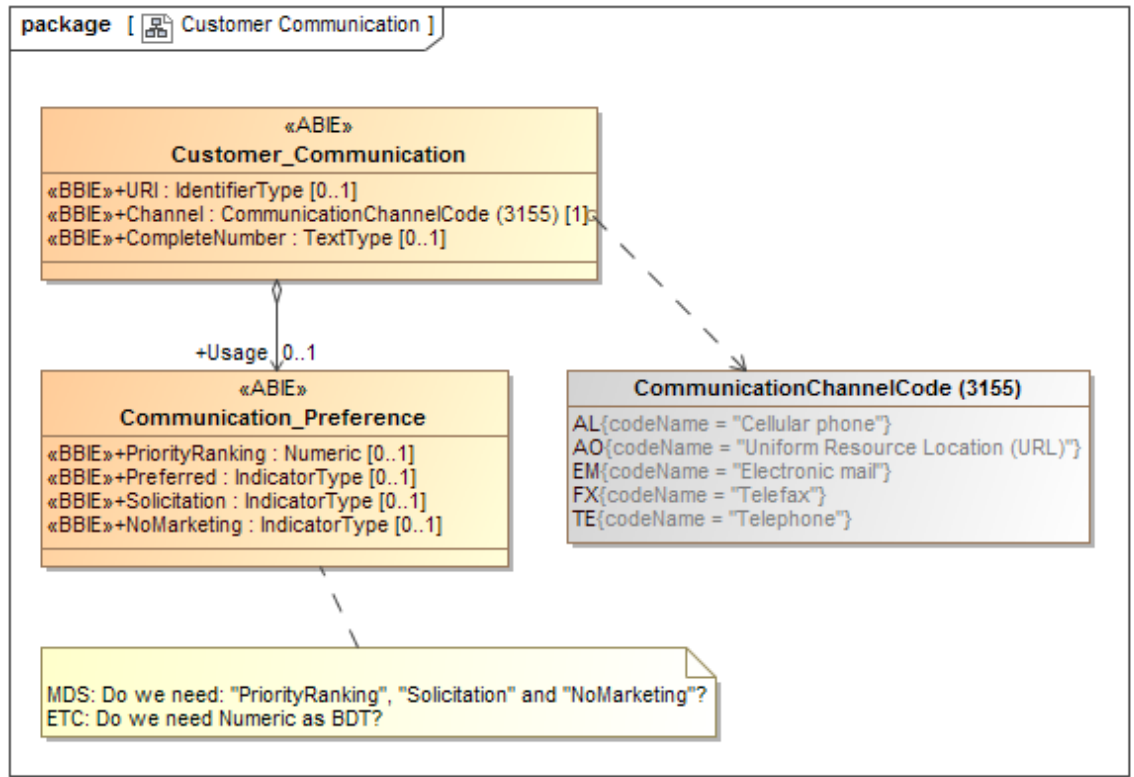
- o As shown in the ebIX® profile:



Action for ETC:

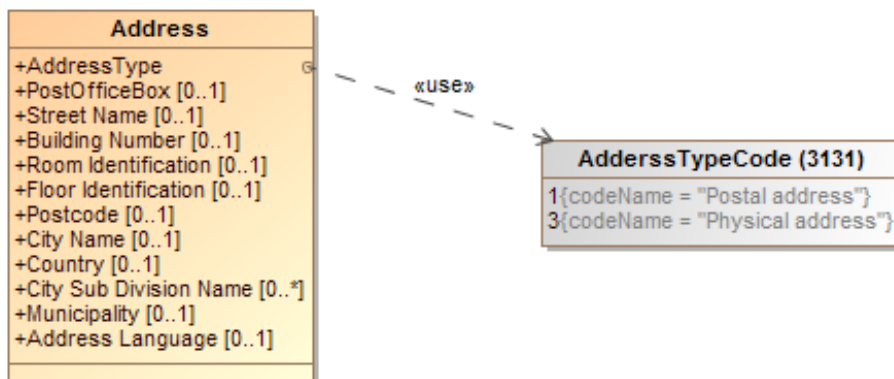
- o Approved by MDS – ETC will create the «ABIE» Customer Identity and related code list

b) Add the «ABIE» «Communication Channel Type» and the related Communication Channel Code:



Action for ETC:

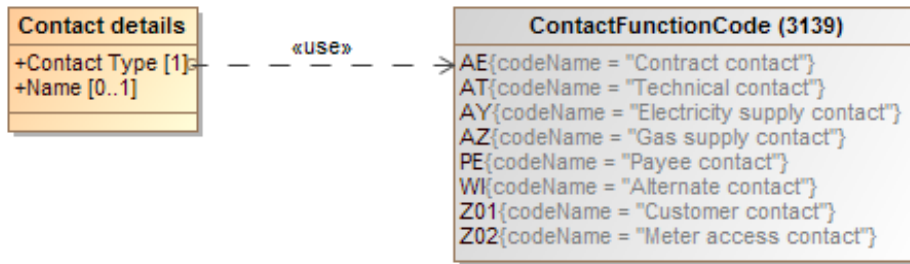
- o Approved by MDS – ETC will add the «ABIEs» Customer Communication and Communication Preference, and the related Communication Channel Code.
 - MDS will only use "Preferred" from Communication Preference
- c) Add an Address Type, based on UN/CEFACT 3131 Communication Channel Code:



Action for ETC:

- o Add Type to the «ABIE» Metering Point Address
- o Add the enumeration Address Type Code

d) Add a new enumeration “Contact function code” based on “3139 Contact function code”:



MDS requirements	3139 Contact function				
	code	name	definition	MDS comments	ETC comments
Main contact	AY	Electricity supply contact	Department/person to contact for matters regarding electricity supply		
	AZ	Gas supply contact	Department/person to contact for matters regarding gas supply		
	BF	Service contact	Department/person to be contacted in service matters.		possible alternatives for “Main contact”
	IC	Information contact	Department/person to contact for questions regarding transactions.		
	CU	Customer contact	The main department/person to contact at the customer		New UN/CEFACT code
Neighbour, House keeper (caretaker)	WI	Alternate contact	Alternate department or person to contact	MDS wants one combined code	
	AV	Maintenance contact	Department/person to contact for matters regarding maintenance		
Invoice contact	PE	Payee contact	Department/employee to be contacted at the payee		
Technical	AT	Technical contact	Department/person to contact for matters regarding technical issues.		
Meter reading	AQ	Quantity surveyor contact	Department/person to contact for matters regarding quantity surveying	MDS wants a new UN/CEFACT code (see below)	
	MA	Meter access contact	Department/person to contact for matters regarding meter reading, including access to the Meter		New UN/CEFACT code
Contract contact	AE	Contract contact	Department/person to contact for matters regarding contracts	NEW	

Action for ETC:

- o ETC will create the enumerations

Action for MDS:

- o The BRS will be republished when new codes have been approved by UN/CEFACT

D.2 General question for later elaboration

Can we remove the Document Name Code from the ebIX® models?

Status:

- The question will be kept for later elaboration

D.3 BRS for Request Change grid responsibility

- a) ETC is asked to find Document Name codes for:
 - o Request change grid responsibility;
 - o Response change grid responsibility;
 - o Notify change grid responsibility;
- b) And Business Reason codes for Change grid responsibility.

Status:

- o Awaiting finalisation of the BRS from MDS

Appendix E XML documents from TT

Jan has made example files, requested by RTE, for the modelling meeting November 29th in Brussels, and found some issues:

- 1) Concerning dates there are a lot of `<xsd:pattern value="pattern not yet to be used: [0-9]{4}-[0-1][0-9]-[0-3][0-9]T[0-2][0-9]:[0-5][0-9]:[0-5][0-9].[0-9]*"/>` in the "ebIX_MessageBusinessInformationEntities"-schemas. That does not XML Spy like. I.e. I couldn't make XML examples, so I first removed those lines.
- 2) Some schemas ends with "_2014pA.xsd", others with "_2016pA.xsd". Since I would like to publish a 2018-version, that should be changed and follow our principles for versioning.
- 3) In the file generic\ebIX_ValidatedDataForBillingEnergy_2016pA.xsd I read

```
xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:rsm="un:unece:260:data:EEM" ...

and later

<xsd:element name="ValidatedDataForBillingEnergy"
type="crs:ValidatedDataForBillingEnergyType"/>...

<xsd:element ref="crs:Header" minOccurs="0" maxOccurs="1"/>
```

The namespaces doesn't match. Should be "rsm" or "crs" in both places, not different.

- 4) A typical example would be to have a file with hourly values. But in the "ebIX_MessageBusinessInformationEntities"-schemas you find

```
<xsd:complexType name="TimeSeriesPeriod">
  <xsd:sequence>
    <xsd:element name="ResolutionDuration" minOccurs="0" maxOccurs="1">
      <xsd:simpleType>
        <xsd:restriction base="mdt:DurationType_000151">
          <xsd:enumeration value="PT15M"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

Then the only possible resolution is 15 minutes. At least also "PT60M" should be possible.

- 5) When making schemas from the TT there is an empty catalogue called "EBO".
- 6) Under \payload\NegativeResponseRequestValidatedDataForImbalanceSettlement there is a sub-folder NegativeResponseRequestValidatedDataforReconciliation, which in turn has another sub-folder NotifyChangeOfBRPTToNewBRP – These should probably not have been there
- 7) Since our meters are having values with up to the resolution of Wh (but in the display shows it with kWh or MWh) it should be possible to send energy values with decimals (when you are using the unit kWh or MWh).

I.e. EnergyQuantity should not be an integer.

Or, if it is kept as an Integer we will in Sweden start to send Wh. (But still present it at Web sites and on Invoices with, typically, the unit kWh.)

Perhaps you can find some information in your national implementations of the EU directive 2014/32/EU: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0032>

The last item I suggest is to be discussed in "EMD".

Appendix F What levels are different “standards” covering

In the report *First Interim Report of the Working Group's findings on Electricity and Gas Data Format and Procedures* (sent from Kees January 31st) there is a figure “Figure 5 – Interoperability categories as defined by GWAC”:



Questions could then be; what levels are the documents/model from ebIX® covering? And looking at other standards, what is covered by e.g. CIM?

And can different standards be combined? E.g. if two standards covers level “4+5”, can they be combined with any other standard covering level 3 and other standards covering level 6?

Example 1: Let us say that the BRS:s from ebIX® covers 5 and 6 and that the ebIX® BIM:s are covering 3 & 4 (could of course be wrong). Let us then assume that another “standard” covers 3. Then we cannot go directly from the ebIX® BRS:s to this other standard, because we are missing level 4.

Example 2: Let us assume that one standard covers levels 4-6 and another standard covers 3-4; then there might be problems trying to use both standards since both are covering level 4 (in most likely different ways).

The aim of this research would be to tell which levels is the ebIX® model covering? What should it cover? What should be covered by ebIX® BRSs? What should be covered by ebIX® BIMs? What is covered by CIM? What should be covered by IEC 62325-451-x-standards?...

And how can/will/should the ebIX® model, CIM and IEC standards interact?

Or can we perhaps make another figure telling this in a better way?

Perhaps the CIM Interface Reference Model (IRM) can be put into this figure (at a high level)?

And “basic CIM” should be seen as something at a more high level, than “profiled CIM”.

Note the national implementations of e.g. ebIX®. There we are not having syntax interoperability between different implementations in different countries – only within the implementations in a country. Partly of course because of that each country have implemented different versions of the ebIX® model, but mostly because of national rules requiring different parts of the ebIX® model to be used.