ISO/TC 211
Geographic information/Geomatics

Email of secretary: mats.ahlin@sis.se
Secretariat: SIS (Sweden)

Result ISO/NP 19160-6, Addressing - Part 6: Digital interchange models

Document type:	Summary of voting
Date of document:	2018-10-05
Expected action:	INFO
No. of pages:	17
Background:	The proposal is approved to be added to the programme of work, and allocation to ISO/TC 211/WG 7.
Committee URL:	https://isotc.iso.org/livelink/livelink/open/tc211

Form 6: Result of voting on New Work Item Proposal

Date: 2018-10-05	ISO/TC 211 N 4933
Title of TC/SC concerned: Geographic information/Geomatics	

To be completed by the secretariat and sent to the ISO Central Secretariat and to all P- and O-members of the TC or SC concerned, with a copy to the TC secretariat in the case of a subcommittee.

Please attach the results of the NWIP ballot from CIB to this form

ISO/TC 211 **N 4888**	**Circulation** 2018-07-12	**Deadline** 2018-10-05
Title: **English title:** Addressing -- Part 6: Digital interchange models **French title:** Adressage -- Partie 6: Mod¯les d'®change num®rique		

Results (the compilation of results is given as an annex)
The following criteria for acceptance have been met: ☒ Approval by a 2/3 majority of the voting P-members; and ☒ a commitment to participate actively in the development of the project by at least 4 P-members in committees with 16 or less P-members and at least 5 P-members in committees with 17 or more P-members (rf ISO/IEC Directives, Part 1 clause 2.3.5) and have nominated an expert ☒ Justification statements have been checked (all negative votes must be accompanied by a statement justifying the decision, or they shall not be counted. See ISO/IEC Directives Part 1, clause 2.3.4)

In light of results, the proposal is therefore:

☒ Approved (all approval criteria met) and the project will be registered:

- ☒ as new project in the committee's work programme (stage 20.00)
- ☐ as a Working Draft (WD ï stage 20.20)
- ☐ as a Committee Draft (CD ï stage 30.00)
- ☐ as a Draft International Standard (DIS ï stage 40.00)

☐ Disapproved (one or more approval criteria not met)

(note that if no option is selected, the default will be abandoned)

- ☐ The draft will be registered as a preliminary work item (stage 00.60)
- ☐ Abandoned.

Proposed project leader:

Peter Tam, peter.tam@ribose.com

This proposal will be developed by:

☒ An existing Working Group: ISO/TC 211/WG 7

☐ A new Working Group

Note: establishment of a new WG must be approved by committee resolution

☐ The TC/SC directly

☐ To be determined

List of participating experts

Please see expert list as separate annex.

Relevant documents

* ISO 19160-1:2015 Addressing -- Conceptual model;
* ISO 19160-2 Addressing -- Good practices for address assignment schemes (work in progress);
* ISO 19160-3:2016 Addressing -- Quality management for address data;
* ISO 19160-4:2017 Addressing -- International postal address components and templates;
* ISO 19160-5 Addressing -- Address rendering for purposes other than mail (work in progress).

Proposed development track

☐ 18 months* ☒ 24 months ☐ 36 months ☐ 48 months

Note: Good project management is essential to meeting deadlines. A committee may be granted only one extension of up to 9 months for the total project duration (to be approved by the ISO/TMB).
*DIS ballot must be successfully completed within 13 months of the projectŝ registration in order to be eligible for the direct publication process

Secretariat	Secretary	Registration by the ISO Central Secretariat
SIS	¡ hlin, Mats Mr	Date: 2018-10-05 Allocated project number: ISO/NP 19160-6

☐ Other information, comments, etc. appended

FORM 6 ï Result of voting on NWIP
Version 02/2018

Annex - Nominated Experts

Member Body	Expert
Australia (SA)	Joseph Abhayaratna Joseph.Abhayaratna@psma.com.au
China (SAC)	Dr. Mao Xi, maoxi@casm.ac.cn
Japan (JISC)	Chie Deguchi Takenori Sato
Korea, Republic of (KATS)	Name: Byungyong Kwak e-mail: kby05@lx.or.kr
New Zealand (NZSO)	Mr Stephen Desmond, sdesmond099@gmail.com
United Kingdom (BSI)	Terence Eden
United States (ANSI)	Mr Sean Uhl, Sean.R.Uhl@census.gov, US Census Bureau

Annex A: Result of voting
Annex B:Table of comments
Annex C: Proposed new diagram from New Zealand

Report of voting

SO/TC 6/SC 2 N 4933 Annex A

Ballot Information

Ballot reference	ISO/NP 19160-6
Ballot type	NP
Ballot title	
Opening date	2018-07-12
Closing date	2018-10-04
Note	

Member responses - Votes by members

Country (Member body)	Status*	1a. Agree to add to work programme								Market relevance	1b.Stakeholders consultation		2. Relevant documents		3. Comments		4. Participation	
		Yes				No		Abs*										
		20.00	20.20	30.00	40.00	PWI: Yes	PWI: No	NC	Exp		Yes	No	Yes	No	Yes	No	Yes	No
Australia (SA)	P	X									X		X		X		X	
Austria (ASI)	P	X									X			X		X		X
Belgium (NBN)	P								X		X			X		X		X
Canada (SCC)	P								X		X			X		X		X
China (SAC)	P		X									X		X		X	X	
Czech Republic (UNMZ)	P		X									X		X		X		X
Denmark (DS)	P		X								X			X	X			X
Finland (SFS)	P	X									X			X		X		X
France (AFNOR)	P								X		X			X		X		X
Germany (DIN)	P								X		X			X		X		X
Hungary (MSZT)	P								X			X		X		X		X
India (BIS)	P								X		X			X		X		X
Iran, Islamic Republic of (ISIRI)	P							X			X			X		X		X
Italy (UNI)	P								X		X			X		X		X
Japan (JISC)	P		X								X			X		X	X	
Korea, Republic of (KATS)	P	X									X			X	X		X	
Lithuania (LST)	P	X									X			X		X		X
Malaysia (DSM)	P								X		X			X		X		X
Mexico (DGN)	P							X				X		X		X		X
Netherlands (NEN)	P								X		X			X		X		X
New Zealand (NZSO)	P					X				X	X		X		X		X	
Sub-Total Question 1a		5	4	0	0	1	0	2	9									
Totals		**9**				**1**		**11**		**1**	**17**	**4**	**2**	**19**	**4**	**17**	**5**	**16**

* Status P for P-Member, O for O-Member and S for Secretariat

* Abs: NC for lack of National Consensus, Exp for lack of Expert Input

Member responses - Votes by members

Country (Member body)	Status*	1a. Agree to add to work programme								Market relevance	1b.Stakeholders consultation		2. Relevant documents		3. Comments		4. Participation	
		Yes				No		Abs*										
		20.00	20.20	30.00	40.00	PWI: Yes	PWI: No	NC	Exp		Yes	No	Yes	No	Yes	No	Yes	No
Norway (SN)	P								X		X			X		X		X
Poland (PKN)	P								X		X			X		X		X
Russian Federation (GOST R)	P								X		X			X		X		X
Saudi Arabia (SASO)	P	X										X		X		X		X
Serbia (ISS)	P	X									X			X		X		X
Slovakia (UNMS SR)	P	X									X			X		X		X
Slovenia (SIST)	P								X		X			X		X		X
South Africa (SABS)	P	X										X		X		X		X
Spain (UNE)	P	X									X			X		X		X
Sweden (SIS)	S								X		X			X		X		X
Switzerland (SNV)	P								X		X			X		X		X
Thailand (TISI)	P		X								X			X		X		X
Turkey (TSE)	P							X			X			X		X		X
United Kingdom (BSI)	P		X								X		X		X		X	
United States (ANSI)	P		X								X		X			X	X	
Sub-Total Question 1a		10	7	0	0	1	0	3	15									
Totals		**17**				**1**		**18**		**1**	**30**	**6**	**4**	**32**	**5**	**31**	**7**	**29**

* Status P for P-Member, O for O-Member and S for Secretariat

* Abs: NC for lack of National Consensus, Exp for lack of Expert Input

Member responses - Votes not cast (1)

Eswatini (SWASA)

Comments from voters

Member	Comment	Date
Australia (SA) **Faber, Natalie Ms**	**See linked comment file:** *ISO NP 19160-6 SA.doc* (access restricted to ballot audience) **Comment to Q.5:** The main relevant documentation in Australia is AS4590: Interchange of Client Information, which has an XML encoding. **Comment to Q.6:** Please see attached comments **Comment to Q.7:** Joseph Abhayaratna Joseph.Abhayaratna@psma.com.au	2018-09-24
China (SAC) **Guo, Jiankun**	**Comment to Q.7:** Dr. Mao Xi, maoxi@casm.ac.cn	2018-09-26
Denmark (DS) **Banck, Maria Gabriella Ms**	**See linked comment file:** *ISO NP 19160-6 DS.docx* (access restricted to ballot audience)	2018-10-02
Japan (JISC) **Tsuzawa, Masaharu Mr**	**See linked comment file:** *ISO NP 19160-6 JISC.docx* (access restricted to ballot audience) **Comment to Q.7:** Chie Deguchi	2018-10-02

Comments from voters		
Member	**Comment**	**Date**
Japan (JISC) **Tsuzawa, Masaharu Mr**	Takenori Sato	2018-10-02
Korea, Republic of (KATS) **Son, Chan Ho Mr**	**See linked comment file:** *ISO NP 19160-6 KATS.docx* (access restricted to ballot audience) **Comment to Q.7:** Name: Byungyong Kwak e-mail: kby05@lx.or.kr	2018-10-03
New Zealand (NZSO) **Murcott, Richard Mr**	**See linked comment file:** *ISO NP 19160-6 NZSO.doc* (access restricted to ballot audience) **Comment to Q.1:** We don't see a clear application of the model driven approach in the context of the 19100 suite. **Comment to Q.5:** the draft NZ Profile of 19160-1 is in the ISO repository **Comment to Q.6:** Please see comment file. **Comment to Q.7:** Mr Stephen Desmond, sdesmond099@gmail.com	2018-10-04
United Kingdom (BSI) **Committee Service Centre, CSC Mr**	**See linked comment file:** *ISO NP 19160-6 BSI.doc* (access restricted to ballot audience) **Comment to Q.5:** https://www.gov.uk/government/publications/open-standards-for-government/exchange-of-contact-information **Comment to Q.7:** Terence Eden	2018-10-02
United States (ANSI) **Team, ANSI ISO**	**Comment to Q.5:** 1. United States Thoroughfare, Landmark, and Postal Address Data Standard: https://www.fgdc.gov/standards/projects/address-data/index_html USGS policies and notices: https://www.usgs.gov/policies-notices 2. United States Postal Service (USPS) Publication 28 - Postal Addressing Standards: https://pe.usps.com/text/pub28/welcome.htm USPS terms of use: http://about.usps.com/termsofuse.htm **Comment to Q.7:** Mr Sean Uhl, Sean.R.Uhl@census.gov, US Census Bureau	2018-09-26

Comments from commenters		
Commenter	**Comment**	**Date**
Chile (INN) **Arredondo, José Mr**	Abstain	2018-07-13
Panama (COPANIT) **Ortega, Aníbal Mr**	No Comment	2018-07-12

Table of comments on ISO/NP 19160-6

Date:2018-10-05	Document: ISO/TC 211 N 4933 Annex B	Project:

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
AU 001					The discussion of machine readable specification of application profiles is currently being considered by W3C in the Dataset eXchange Working Group (DXWG: https://www.w3.org/2017/dxwg/wiki/Main_Page). Whilst I approve of this particular item moving forward and being registered as a new project, I would suggest that tight integration with the W3C working group is necessary to ensure that two competing standards are not created - one of which is more reputable for the web. There are some items in this proposal/draft that are not relevant to digital interchange models (e.g., Visualisation components), and thus could be deemed out of scope for this activity. I may suggest removal of these particular items during the next stage of development - I merely raise the question of their relevance at this stage. I will be consulting with the DXWG in future to try and ensure alignment between these two activities, and am happy to help the authors connect with this group too. The working draft for the W3C activity should be available shortly. I am not prepared to provide detailed commentary on the 19160-6 until I have seen this W3C draft.		
AU 002					AUS approves the NP but notes some inconsistences with the Data Dictionary and not all elements are described. Also some inconsistent naming convention and lack of reuse of some of the ISO 19115-1:2014 elements.		

1 **MB** = Member body / **NC** = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)
2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
KR 003				ge	The purpose of this standard is to present an address interchange object that facilitates address exchange and interaction while supporting human input and human-machine interaction in the process of interacting and exchanging international addresses. An address layout template, an address display template, an address form template, an interchange address profile, an interchange address instance, the requirements for exchange were presented. However, ISO19160-4 has already defined the address as a rendering rule definition (PATDL) in a language suitable for computer processing and defined the level of the three components of the address component (segment, composition, basic element). Therefore, it is necessary to clarify what is different from 19160-4. In ISO19160-5, the project was carried out on how to express non-mail addresses. However, since the number of addresses to be displayed on various devices is too large, a complicated algorithm for determining addresses to be displayed and addresses to be hidden is needed. Is this possible through an address display template? In addition, 19160-5 describes how to represent addresses on different devices, 19160-6 provides a template for address object and address input and representation by creating address exchange objects, What is the difference between the two projects?		
GB 004				Ge	It is generally helpful to include a conformance clause, which generally states the 'conformance target' of the standard (i.e. what it is that should conform – software, data, other standards….) TC211 Resolution 877 states that this shall be part of the normative text.	Introduce a conformance clause	

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Table of comments on ISO/NP 19160-6

Date:2018-10-05	Document: ISO/TC 211 N 4933 Annex B	Project:

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
GB 005				Ge	There are many attribute descriptions that contain little or no helpful information, for example simply stating that the “Description” is “a textual description of the attribute”. This may be a large part of the work of the project team.	Provide helpful definition and/or description of each attribute	
GB 006				Ge	The data descriptions may be easier to follow in a tabular layout, as for example in ISO 19160-1 This may be an outcome of moving the UML models into the Harmonised Model & generating the tables from there.	Introduce a common tabular layout	
GB 007				Ge	We need to understand the user-needs for this proposal – which uses-cases this standard will tackle.	Include a statement of user needs (use cases), probably in the scope or introduction.	
GB 008				Ge	Other relevant work: https://github.com/kdeldycke/awesome-falsehood#postal-addresses		
GB **009**				Ge	Other relevant organisations: W3C		
GB 010				Ge	Relevant national regulation: https://www.gov.uk/government/publications/open-standards-for-government/exchange-of-contact-information - requiring the use of vCard.		
NZ 011			Fig 6	te	Confusion between Class and Datatype. InterchangeAddressComponent is modelled as a Class but used as a Datatype.	Redraw	
NZ 012			Fig 6	te	XML objects generated from 19160-1 are called just “Address” and “AddressComponent”, the term “Interchange” is redundant.	Change Class names	
ZA 013		Introduction		Ed	Typo in ”ISO 19160-1 describes the Addressing Conceptual models that allows specification…”	”ISO 19160-1 describes the Addressing Conceptual models that allow specification…”	
ZA 014		Introduction		Ge		Describe the relationship to the other addressing standards, specifically to ISO ISO 19160-3 and 19160-4.	

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Date:2018-10-05	Document: ISO/TC 211 N 4933 Annex B	Project:

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
ZA 015		01		Te	”AXO” is mentioned only in the scope; never again in the document.	Remove the unused acronym.	
JP 016		03.		General	There is no definition of ”Interchange model"	The definition of ”Interchange model" should be clarified and added to the document.	
ZA 017		03.		Ed	Terms are not sorted alphabetically	Sort terms alphabetically	
ZA 018		03.		Ge	No conformance classes specified.	Specify conformance classes.	
ZA 019		03.01		Ed		Add clause to the reference of the term	
ZA 020		03.02		Ed		Add clause to the reference of the term	
ZA 021		03.03		Ed		Add clause to the reference of the term	
ZA 022		03.05		Ed		Add clause to the reference of the term	
ZA 023		03.09		Ed		Add source for the definition of the term	
ZA 024		03.10		Ed		Add source for the definition of the term	
ZA 025		03.12		Te	The definition is unexpected when looking at the definitions of interchange address class (3.4) and interchange address component (3.6).	Change to ’representation of a profile suitable for interchange’	
ZA 026		03.14		Ed		Add the source of the definition	
ZA 027		03.15		Ed		Add the source of the definition	
ZA 028		03.16		Ed		Formatting needs to be corrected.	
ZA 029		03.17		Ed		Add the source of the definition	

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MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
ZA 030		03.18		Ed		Add the source of the definition	
ZA 031		03.19		Te	The definition is not clear.	Improve.	
ZA 032		04.		Ge	Provide an introduction that explains the purpose of the different clauses and how they are related to each other.		
ZA 033		04.		Ge		Requirements and recommendation shall be explicitly idenitfied (e.g. through formatting).	
ZA 034		04.		Ge	Add examples to help to explain the text.		
NZ 035		04.01		te	This appears to be talking about Address Profile Registry Management, and should be a topic for a 19135 profile.	Rethink scope and purpose of this project.	
NZ 036		04.02		te	Address Instance Lifecycle is covered by Annex D in 19160-1. If there is a need for additional material it should go into the next version of 19160-1, or into a Jurisdiction Profile.	Rethink scope and purpose of this project.	
NZ 037		05.	Figure 5 is in Section 7; should move to Section 5, and add preamble.	ed	Editorial comment on format as presented: Should introduce “Interchange Address Models and Structures”, and then present the full picture of what is proposed, e.g. the content and diagram in Section 7; details of the composite parts should then follow, in order of importance or criticality to the InterchangeAddresProfile (Figure 5)	In the document in its current order of presentation add columns to clarify which sections relate to what attributes. See proposed new diagram for “InterchangeAddressProfile” which adds a column that refers to each sections where individual attributes are defined and described. < *InterchangeAddressProfile Orienting Diagram* > attached in Annex C.	

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MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
NZ 038		05. 6. 7. 8.	Figure 5	ed	Editorial comment on layout and orientation of the document as presented: The proposed address exchange standard involves coordinating between complex precedent standards, particularly the existing ISO 19115-1, several standards for country codes and publication metadata, and the related accepted interchange Address Class model described in ISO 19160-1. The reader needs to understand where they are in the “zones” of these related standards; as it is currently written, it takes significant analysis and page-flipping to work out the conceptual map for this complex data model. Perhaps an orienting graphic or diagram will help the reader work out the details of each of the “zones” of related standards within the proposed InterchangeAddressProfile (19160-6)	For the document as it exists presently, add a “Orienting Diagram” which is a meta-meta model of the composite complex data model “InterchangeAddressProfile”. See diagram attached for review/comment.	
DK 039		05.01	Bullet points	ed	It seems that not all the data types mentioned here are used in the document	Evaluate the document for the use of primitives and delete those that are not used.	
DK 040		05.02.01	Note	te	The Note not completed. Actually it is more like a place holder.	Either delete the note or put some relevant text into the note.	
NZ 041		06		te	There is no "top down" model. Specimens can be found in 19160-1 and the Land Administration Domain Model (LADM), where they were useful for presentation of base concepts.	Draw one	
ZA 042		06.		Ge	It is not clear how this section on common models is related to the remainder of the document.	Add text to explain this.	
DK 043		07.01 and 7.02	Figure 5 and text	ge	This intent with this comment is valid throughout the entire document. Not all the attributes mentioned in the Figure above (eg. Figure 5) are listed in the clause with the headline “Attributes” and the attributes are not mentioned in the same order of sequence.	If the headline are “Attributes” then all the attributes mentioned in the Figure should also appear and preferably appearing in the same order at both places.	

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Table of comments on ISO/NP 19160-6

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MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
DK 044		07.02	TTL	ed	The abbreviation TTL appears in the text but there should perhaps also be included in an clause with abbreviation.	Create an abbreviation clause and evaluate the entire document for use of abbreviations and add these to the abbreviation clause.	
DK 045		08.01	Figure 6	Ed/te	Why include the note in the Figure?	Delete the note in the Figure. The content are described in the example just below the Figure.	
DK 046		08.01	Figure 6	Ed/te	This comment can also be regarded as a question, and this comment are valid for all the rest of the Figures in this document. Why connect data types to a class via and directed association? – Eg. the class "InterchangeAddressClass" have an attribute named "component" with the data type "InterchangeAddressComponent" this data type are related to "InterchangeAddressClass" via an association.	We would have thought that the directed associations from a data type to a class could be deleted.	
ZA 047		09.		Te	'capability' does not seem to be the correct term to represent the status. It is confusing to call it capability when status is meant.	Use a more appropriate term.	
NZ 048		1 and 5 - 9		ge	Interface Objects are generated as XML from profiles of 19160-1. There is no need to re-specify them here in UML before generating code. As it stands, this proposed document appears to reject the "Model Driven Approach" to standardisation.	Rethink scope and purpose of this project.	
DK 049		11		ge	Since the direction of writing are not standardised throughout the world perhaps that should also be reflected in this clause (starting with Figure 9).	Add an attribute where the direction of writing can be described and adjust the text accordingly.	
NZ 050		4 - 9		te	Some of this material might go into a Web Feature Service (WFS) Address Profile spec?	Rethink scope and purpose of this project.	
NZ 051		6 & 9		te	This content is metadata. If it is required it should go into a Jurisdiction Profile and be considered for inclusion in the next version of 19160-1.	Rethink scope and purpose of this project.	

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Table of comments on ISO/NP 19160-6

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MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
NZ 052		7 & 8		te	These models are so far removed in form from 19160-1 that they cannot really be called a “Profile” There seems to be an implication that 19160-1 by itself is not suitable for digital distribution or machine readable implementation. To an external service, an Address conforming to this model would be less interoperable than one conforming more closely to 19160-1.	Rethink scope and purpose of this project. Explain why this deviation from 19160-1 is necessary.	
JP 053		All		General	UML class diagrams does not follow the description rules. For example, - There are many unnecessary associations between classes, - Some attribute names and types are missing, - Stereo types are not defined.	All UML diagrams shall follow and adopt the rules for class diagrams and conform to the Harmonized Model of TC211.	
ZA 054		Annex B		Ge		Elaborate this appendix so that the use case that shows how the different parts of the standard would be implemented/used in practice.	
DK 055		Annex B, C and D		ge	We do not think the content of these annexes are normative. To us it look more informative.	Reclassify these annexes to be informative.	
NZ 056		Anywhere		te	No geocoding of Addresses	Explain or add.	
NZ 057		Anywhere		ge	No AddressableObject (except in the Glossary 3.2) or ReferenceObject	Explain omission or add to the model	

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Monday, 1 October 2018 9:41 AM

Figure 5: Interchange address profile data model

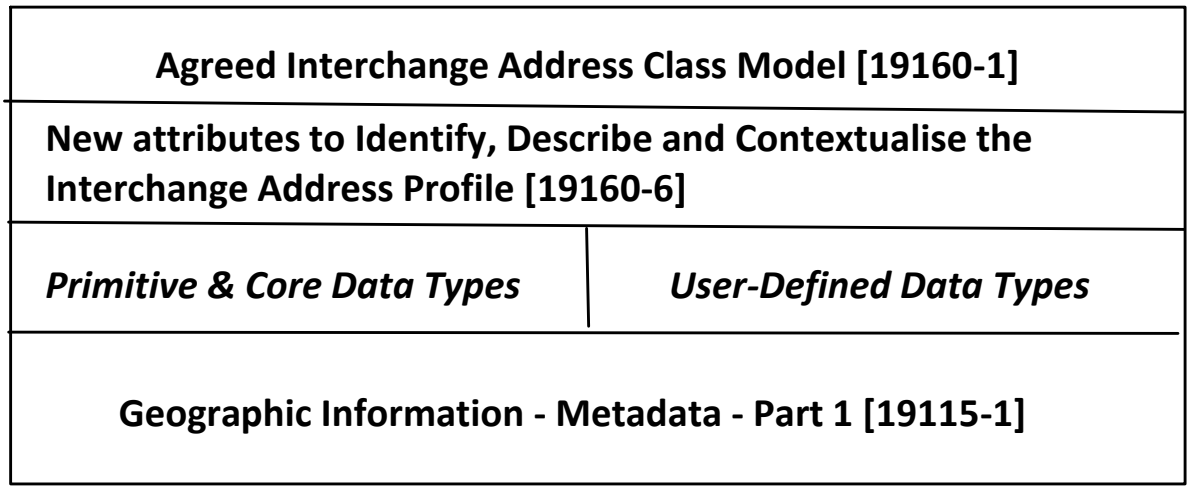
1	**7.2**	id	Unique identifier of this Interchange Address Profile [uri]
2	**7.2**	type	Intended usage of this profile [uri]
3	**7.2**	description	Textual description of this definition [Character String]
4	8.1	classes	***InterchangeAddressClass***[0..*]:
5	5.2	dataTypes	***UserDefinedDataType***[0..*]:
6	6.1	signature	**Crypto-signature**; ISO/IED 14888-3; [Character String]
7	7.3	publisher	**CI_Party**, ISO 19115-1:
8	6.3	validity	**CI_Date**, ISO 19115-1:
9	6.2	localization	**PT_Locale**, ISO 19115-1 plus scriptCode ISO 15924:
10	7.5	areaApplicability	**MD_Spatial_Representation**, ISO 19115-1:
11	**7.2**	ttl	Time to Live; The maximum interval between refreshing of this profile via an authoritative source, in seconds [Integer]
12	7.4	identifier	**MD_Identifier**, ISO 19115-1
13	**7.2**	Country **	The country of which this interchange address profile represents. Expressed as the 2-digit country code specified in ISO 639-1. [0..*]

** presented as new to the composite standard, but actually uses precedent standard ISO 639-1.

Meta-Meta Model for Interchange Address Profile (19160-6)

Monday, 1 October 2018 11:05 AM

Orienting Graphic Presentation of Meta-Meta Model



Section 5: PREAMBLE for ORIENTATION (suggested)

The Interchange Address Profile is a composite data model, which integrates and thereby requires coordination between complex precedent ISO standards for Geographic Information. These are 19115-1, 19160-1 and some others [for signature, localization and country codes].

Some new attributes are introduced here for the Interchange Address Profile object, particularly to identify, describe and contextualise it.