Paper for Consideration by S100TSM9

S100_DatasetDiscoveryMetadata attributes replacedData and dataReplacement

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Executive Summary:	A clarifying description of the intended use of the attributes replacedData and dataReplacement is needed. There is also a need for minor adjustments of the attributes description and multiplicity.
Related Documents:	S-100 5.0.0
Related Projects:	

Introduction / Background

For service providers allocating products to customers on different subscription services (3 month, 12 month of length for example), there is a need for allocating new products to customers free of charge whenever there is a dataset being cancelled and replaced by 1 or more new datasets. This typically happens when a producer is changing their products' coverage scheme for whatever reason.

In order for a service provider to do this, the planned change is noted during communication with producers of datasets, and the service provider makes the necessary changes within their own system. Currently this is a manual process.

With the introduction of the S100_DatasetDiscoveryMetadata attributes replacedData and dataReplacement it will be possible to build automation for handling those cases in S-100.

Attribute	replacedData	If a data file is cancelled is it replaced by another data file	0..1	Boolean	
Attribute	dataReplacement	Cell name	0..*	CharacterString	A dataset may be replaced by 1 or more datasets

The logic is that the producer indicates with a boolean attribute replacedData if a cancelled dataset has replacement dataset(s) or not. The identification of the new dataset(s) replacing the old one is encoded in the attribute dataReplacement.

The logical use and intention of those attributes as described above should be explained in S-100 Part 17.

To make these attributes usable the following changes should be made::
1. The multiplicity in replacedData must be changed to [1].
2. Change the description of replaced data from "If a file is cancelled is it replaced by another data file" to "Indicates if a cancelled dataset is replaced by other data file(s)".
3. Change the description of dataReplacement from "Cell name" to "Dataset name".
4. Add the text "*See note" to replacedData and dataReplacement in the Remarks field.
5. Add the following note: "The intended use of the attributes replacedData and dataReplacement is to provide a mechanism for service providers to build automation when providing replaced data sets to customers within existing subscription periods".

Analysis/Discussion

Discussion for point 1-5 above

1 .All attributes defined in S-100 Part 17 of the type boolean are mandatory (Mult = 1), except for the attribute replacedData. We believe this is a failure and that the attribute replacedData multiplicity should be changed to [1] accordingly. Mandating replacedData also ensures the mechanism will work across product specifications.

2 .The description of replacedData must be updated to better align with the common description structure of boolean attributes in Part 17 tables.

3 ."Cell" is a leftover term from S-57, for S-100 we use the term "Dataset" instead.

4 . A reference to note in the Remarks field provides improved readability.

5 .The intended use of the discussed attributes are explained above in the introduction. To clarify this for S-100 implementers, the note is needed for clarification and understanding of intended use.

The proposed changes:

Attribute	replacedData	~~If a data file is cancelled is it replaced by another data file~~ Indicates if a cancelled dataset is replaced by other data file(s)	~~0..1~~ 1	Boolean	*See note
Attribute	dataReplacement	~~Cell~~ Dataset name	0..*	CharacterString	A dataset may be replaced by 1 or more datasets. *See note
Attribute	navigationPurpose	Classification of intended navigation purpose (for Catalogue indexing purposes)	0..3	S100_NavigationPurpose	If Product Specification is intended for creation of navigational products this attribute should be mandatory
Role	resourceMaintenance	Information about the frequency of resource updates, and the scope of those updates	0..1	MD_MaintenanceInformation	S-100 restricts the multiplicity to 0..1 and adds specific restrictions on the ISO 19115 structure and content. See clause MD_MaintenanceInformation later in this Part. Format: PnYnMnDTnHnMnS (XMl built-in type for ISO 8601 *duration*). See clause 17-4.9

NOTE: replacedData and dataReplacement: The intended use of the attributes replacedData and dataReplacement is to provide a mechanism for service providers to build automation when providing replacement data sets to customers within existing subscription periods.

Conclusions
- The multiplicity in replacedData must be changed to [1].
- Change the description of replacedData from "If a file is cancelled is it replaced by another data file" to ""Indicates if a cancelled dataset is replaced by other data file(s)".
- Change the description of attribute dataReplacement from "Cell name" to "Dataset name".
- Add "See note" to replacedData and dataReplacement in the Remarks field.
- The following note should be added to the attributes replacedData and dataReplacement: "The intended use of the attributes replacedData and dataReplacement is to provide a mechanism for service providers to build automation when providing replaced data sets to customers within existing subscription periods".

Action Required of S100TSM9
The S100TSM is invited to:
Note the report and discuss proposed changes.