**3GPP TSG- Meeting #**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Specifying multivalue attributes | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | For multi-valued attributes the isOrdered and isUnique properties are often marked as N/A; However, these properties must be defined for multivalued attributes, they will have some value even if left unspecified.  E.g. uniqueness is either enforced or not. "N/A not applicable" results in potential compatibility problems. | | | | | | | | |
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| ***Summary of change:*** | | Emphasize that isOrdered and isUnique must be defined for multivalued attributes. | | | | | | | | |
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| ***Consequences if not approved:*** | | Bad attribute descriptions for multivalued attributes. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.1.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

***First change***

#### 5.2.1.1 Description

It is a typed element representing a property of a class. See 10.2.5 Property of [1].

An element that is typed implies that the element can only refer to a constrained set of values.

See 10.1.4 Type of [1] for more information on type.

See 5.3.4 and 5.4.3 for predefined data types and user-defined data types that can apply type information to an element.

The following table captures the properties of this modelled element.

**Table 5.2.1.1-1: Attribute properties**

|  |  |  |
| --- | --- | --- |
| **Property name** | **Description** | **Legal values** |
| documentation | Contains a textual description of the attribute. Should refer (to enable traceability) to the specific requirement. | Any |
| isOrdered | For a multi-valued multiplicity; this specifies if the values of this attribute instance are sequentially ordered. See subclause 7.3.44 and its Table 7.1 of [2].  If the property is present for attributes with a multiplicity of greater than “1”, it shall be set to either “True” or “False”. It shall not be set to “N/A”. | True, False (default) |
| isUnique | For a multi-valued multiplicity, this specifies if the values of this attribute instance are unique (i.e., no duplicate attribute values). See subclause 7.3.44 and its Table 7.1 of [2].  If the property is present for attributes with a multiplicity of greater than “1”, it shall be set to either “True” or “False”. It shall not be set to “N/A”. | True (default), False |
| isReadable | Specifies that this attribute can be read by the manager. | True , False (default), (see NOTE 3) |
| isWritable | Specifies that this attribute can be written by the manager under the conditions specified in Annex B. | True, False (default)  (see NOTE 4) |
| type | Refers to a predefined (see subclause 5.4.3) or user defined data type (see section 5.3.4). See also subclause 7.3.44 of [2], inherited from StructuralFeature. | NA |
| isInvariant | Attribute value is set at object creation time and cannot be changed under the conditions specified in Annex B. | True, False (default) |
| allowedValues | Identifies the values the attribute can have. | Dependent on type |
| isNotifyable | Identifies if a notification shall be sent in case of a value change (see Note 1, Note 2). | True (default), False |
| defaultValue | Identifies a value at specification time that is used at object creation time under conditions defined in Annex B. | No value (default) or a value that is dependent on allowedValues |
| multiplicity | Defines the number of values the attribute can simultaneously have. See subclause 7.3.44 of [2]; inherited from StructuralFeature. | See 5.2.8 Default is 1 |
| isNullable | Identifies if an attribute can carry no information. The implied meaning of carrying “no information” is context sensitive and is not defined in this Model Repertoire. | True, False (default) |
| supportQualifier | Identifies the required support of the attribute. See also subclause 6. | M, O (default), CM, CO, C |
| passedById | See Table 5.2.9.1-1: passedById property | True, False (default) |

NOTE 1: Whether a client/manager can receive the notification depends on a) if the client/manager has subscribed or registered for reception of such notification and b) if a notification mechanism is supported.

NOTE 2: If the attribute is a role-attribute and its property passedById is ‘False’, then changes in the navigable association target end instance do not trigger a notification.

NOTE 3: The value True is conditional on the presence of a mechanism for the MnS Producer to authenticate the MnS Consumer and verify whether the authenticated MnS Consumer is authorized to read.

NOTE 4: The value True is conditional on the presence of a mechanism for the MnS Producer to authenticate the MnS Consumer and verify whether the authenticated MnS Consumer is authorized to write.

***End of changes***