3GPP TSG SA WG5 Meeting 142-e S5-222526

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **32.156** | **CR** | **draft-CR** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  |
| *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:***  | Dont use isNullable true |
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| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | adNRM |  | ***Date:*** | <Res\_date> |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-17 |
|  | *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 canbe 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)* |
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| ***Reason for change:*** | The value isNullable=true should not be used because:1. The current specification for isNullable is vague, not well defined: “*The implied meaning of carrying “no information” is context sensitive and is not defined in this Model Repertoire.*” It is not even defined what context means: Solution set, continent you live on?
2. It is not defined, what is the difference between the meaning of an attribute that is NULL and an attribute that has no values (as a result of multiplicity 0 or 0..\*). It is hard for a user (e.g., an operator) to understand the difference between the two concepts.
3. multiplicity 0..1 or 0..\* can solve the same problem as isNullable=true, so isNUllable is not needed
4. isNullable=true is not properly represented in YANG.
* In YANG an attribute is either present or not, and there is no special “NULL” marking or value.
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| ***Summary of change:*** | Add a note that the further use of isNullable-true is not recommended. |
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| ***Consequences if not approved:*** | An attribute property is used that is not easy to understand and that is not fully represented in either YANG. |
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| ***Clauses affected:*** | 5.2.1.1 |
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|  | **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 ...  |
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| ***Other comments:*** | Mapping to earlier releases is not needed as the usage of the isNullable property is debatable only for new attribute design.  |
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| ***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

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| --- | --- | --- |
| 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.When specific values or restrictions are listed, this means that other values are not allowed, except if the attribute description explicitly states that other values are allowed.If other values shall be allowed the description should include the text: "isExtensible=True" | 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. Usage of the value True is not recommended. (see Note 5). | 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.

NOTE 5: The distinction between a NULL and an absence of a value (e.g., an empty sequence) may be confusing for an operator. isNullable=True cannot be fully represented in multiple solution sets, so its usage is not recommended.

***End of changes***