**3GPP SA3LI#85e-a *S3i220228r1***

**eMeeting, 25-29 April 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.128** | **CR** | **0348** | **rev** | **1** | **Current version:** | **16.10.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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| ***Title:*** | Backward Compatibility in ASN.1 schema | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3LI (Rogers Communications, NTAC, EVE Compliancy Solutions) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI16 | | | | |  | ***Date:*** | | | 2022-04-27 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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)* | |
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| ***Reason for change:*** | | Addition of a mandatory parameter to an existing ASN.1 SEQUENCE or SET structure breaks backward compatility of the schema | | | | | | | | |
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| ***Summary of change:*** | | A new ASN.1 drafting rule requiring to define such parameters as OPTIONAL despite being designated as “M” in the main body of the specification. | | | | | | | | |
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| ***Consequences if not approved:*** | | Potentially broken backward compatibility of the ASN.1 schema | | | | | | | | |
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| ***Clauses affected:*** | | D.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* START OF CHANGE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Table D.4-1: ASN.1 Syntax conventions

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| --- | --- |
| D.4.1 | Modules are be defined with EXTENSIBILITY IMPLIED unless there is a specific reason to limit extensibility. |
| D.4.2 | The AUTOMATIC TAGS module directive is not used. |
| D.4.3 | SEQUENCE and CHOICE tag numbers start at one. |
| D.4.4 | ENUMERATED tag numbers start at one. |
| D.4.5 | Anonymous types are not used. Non-trivial fields are assigned their own named type. |
| D.4.6 | Consideration should be given to making types re-usable and independent of a particular release. Re-using or extending an existing type, where the intent is similar, is preferable to creating a new type. |
| D.4.7 | Consideration should be given to making types extensible by declaring them as a SEQUENCE or CHOICE where possible. |
| D.4.8 | Multiple smaller messages or structures with fewer OPTONAL fields are preferred to larger structures with many OPTIONAL fields, as this increases the ability of the ASN.1 schema to enforce the intent of the specification. |
| D.4.9 | Field names, tag numbers, field types and optional flags are be space-aligned where possible. An indent of four spaces is used. |
| D.4.10 | Field and type names (when defining a type) are not in bold. |
| D.4.11 | Braces are given their own line. |
| D.4.12 | OIDs containing a version number are updated when the structure that uses the OID is changed, even if the change is solely to correct a syntactic error. Other OIDs in the same module need not be updated if they are not associated with structures that have been changed. |
| D.4.13 | For backward compatibility, fields added to existing SEQUENCE or SET are defined as OPTIONAL, irrespective of their M/C/O designation in the main body of the specification |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*END OF CHANGE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*