**3GPP TSG-CT WG1 Meeting #128bis-eC1-210765**

**Elbonia, 25 February – 5 March 2021**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.526** | **CR** | **0109** | **rev** | **-** | **Current version:** | **16.6.0** |  |
|  | | | | | | | | |
| *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 | **x** | Radio Access Network |  | Core Network |  |

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| ***Title:*** |  | | | | | | | | | |
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| ***Source to WG:*** | BlackBerry UK Ltd. | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc16-non3GPP | | | | |  | ***Date:*** | | | 2021-02-16 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The CR allows inclusion of the "any PLMN" entry in the non-3GPP access node selection information to be optional. | | | | | | | | |
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| ***Summary of change:*** | | Permit the "any PLMN" entry in the non-3GPP access node selection information to be optional. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misalignment between stage 2 and stage 3. Stage 3 depends on abnormal procedures for handling the absence of the "any PLMN" entry while stage 2 have permitted absence of the "any PLMN" entry going forward.  Inconsistent UE behavior between Rel-16 and future releases (incl. Rel-17). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **x** |  | Other core specifications | | | | TS/TR 23.501 CR 2402 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | See also TS 24.502 CR#0184 | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Simplified change as proposed by Amer.  Improved consequences if not approved, to address one of Lazaros’ concerns. | | | | | | | | |

\*\*\* First change \*\*\*

#### 5.3.3.2 N3AN node selection information

The content of N3AN node selection information contains a sequence of the N3AN node selection information entries. Each N3AN node selection information entry contains a PLMN ID and information for the PLMN ID. The content of N3AN node selection information contains at least an N3AN node selection information entry with information for the HPLMN.

NOTE: If N3AN node selection information does not contain an N3AN node selection information entry with information for the HPLMN, the N3AN node selection information is handled as a syntactically incorrect IE according to 3GPP TS 24.501 [11].

The content is encoded according to figure 5.3.3.2.1, figure 5.3.3.2.2 and table 5.3.3.2.1.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| N3AN node selection information entry 1 | | | | | | | | octet x+5 |
| octet y |
| N3AN node selection information entry 2 | | | | | | | | octet y+1  octet t |
| … | | | | | | | |  |
| N3AN node selection information entry n | | | | | | | | octet u  octet v |

Figure 5.3.3.2.1: Content of N3AN node selection information

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | | 5 | | 4 | 3 | 2 | 1 |  |
| Length of N3AN node selection information entry | | | | | | | | | | octet x+5 |
| MCC digit 2 | | | | | | MCC digit 1 | | | | octet x+6 |
| MNC digit 3 | | | | | | MCC digit 3 | | | | octet x+7 |
| MNC digit 2 | | | | | | MNC digit 1 | | | | octet x+8 |
| FQDN format | | | Preference | | Priority | | | | | octet x+9 |

Figure 5.3.3.2.2: N3AN node selection information entry

Table 5.3.3.2.1: N3AN node selection information

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| --- | --- | --- |
| Length of N3AN node selection information entry (octet x+5) contains length of subsequent fields in the N3AN node selection information entry. | | |
| PLMN ID (octet x+6 to x+8) field shall be set to zero if it indicates "any\_PLMN". Otherwise, | | |
|  | | |
| MCC, Mobile country code (octet x+6, and bits 4 to 1 of octet x+7) | | |
| The MCC field is encoded as in ITU-T Recommendation E.212 [10], annex A. | | |
|  | | |
| MNC, Mobile network code (bits 8 to 5 of octet x+7, and octet x+8) | | |
| The encoding of this field is the responsibility of each administration but BCD coding shall be used. The MNC shall consist of 2 or 3 digits. If a network operator decides to use only two digits in the MNC, MNC digit 3 shall be encoded as "1111". | | |
|  | | |
| Priority (bits 5 to 1 of octet x+9) indicates the preference order given to N3AN nodes of a PLMN. The lower value indicates higher priority. If the PLMN is the UE's HPLMN or the PLMN ID indicates "any\_PLMN", this priority filed shall be ignored. | | |
|  | | |
| Preference (bit 6 of octet x+9) indicates which N3AN node type is preferred in this PLMN and is encoded as follows. | | |
| **6** |  | |
| 0 | N3IWF is preferred | |
| 1 | ePDG is preferred | |
|  | | |
| FQDN format (bits 8 to 7 of octet x+9) indicates format to be used when the FQDN is constructed by the UE. This field is encoded as follows. | | |
| **8** | **7** |  |
| 0 | 0 | Operator identifier based ePDG FQDN format or operator identifier based N3IWF FQDN. |
|  |  |  |
| 0 | 1 | Tracking/location area identity based ePDG FQDN format or tracking area identity based N3IWF FQDN format. |
| All other values are reserved. | | |
|  | | |