**3GPP TSG-SA3 Meeting #91-LI *s3i230610***

**Sydney, AU, 24-27 October 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.128** | **CR** | **0582** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Optional Cell ID in LI\_HIQR queries | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3LI (National Technical Assistance, ZiTiS, LKA Niedersachen) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI18 | | | | |  | ***Date:*** | | | 2023-10-26 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Cell ID is a mandatory parameters for the LI\_HIQR temporary-to-permanent query. However, there are operational situations where the Cell ID will not be known to the LEA (e.g. a UE moving within a tracking area but retaining the same GUTI).  All parameters are provided via TS 103 120's RequestValue mechanism, meaning that these parameters can be made optional without requiring changes to any of TS 33.128's schema definitions, and therefore retains backwards-compatibility. | | | | | | | | |
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| ***Summary of change:*** | | Cell ID is made an optional query parameter for temporary-to-permanent queries. | | | | | | | | |
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| ***Consequences if not approved:*** | | The identifier association mechanisms may not be able to meet LEA requirements in all operational circumstances. | | | | | | | | |
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| ***Clauses affected:*** | | 5.7.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | s3i230551 | | | | | | | | |

FIRST CHANGE

#### 5.7.2.2 Request parameters

The RequestValues field shall contain one of the following:

- SUPI, given in either SUPIIMSI or SUPINAI formats as defined in ETSI TS 103 120 [6] clause C.2.

- SUCI, given as defined in table 5.7.2-4 below.

- 5G-S-TMSI, given as defined in table 5.7.2-4 below.

- 5G-GUTI, given as defined in table 5.7.2-4 below.

If the RequestType is "OngoingIdentityAssociation" (see table 5.7.2-3), SUPI is the only valid identity type in the RequestValues field. If the RequestType is "OngoingIdentityAssociation" and any other identity type is provided, the IQF shall signal the error by setting the LDTaskObject Status to "Invalid" (see ETSI TS 103 120 [6] clause 8.3.3).

If a temporary identity is provided, the following may also be present as RequestValues:

- NRCellIdentity, given as defined in table 5.7.2-4 below.

If a temporary identity is provided, the following shall also be present as RequestValues:

- TrackingAreaCode, given as defined in table 5.7.2-4 below.

The following RequestValue FormatTypes (see ETSI TS 103 120 [6] clause 8.3.5.4) are defined (which are not otherwise defined elsewhere).

Table 5.7.2-4: RequestValue FormatType extensions for LI\_HIQR Requests

| Format Owner | Format Name | Description | Format |
| --- | --- | --- | --- |
| 3GPP | SUCI | Subscription Concealed Identifier as per TS 23.003 [19] clause 2.2B. | TS 29.509 [45] clause 6.1.6.3.2 |
| 3GPP | 5GSTMSI | Shortened form of the 5G-GUTI as defined in TS 23.003 [19] clause 2.11. Given as a hyphen-separated concatenation of:  - The string "5gstmsi".  - The AMF Set ID given as three hexadecimal digits (10 bits).  - The AMF Pointer given as two hexadecimal digits (6 bits).  - The 5G-TMSI given as eight hexadecimal digits (32 bits). | Matches regular expression:  ^(5gstmsi-([0-3][0-9A-Fa-f]{2})-([0-3][0-9A-Fa-f])-([0-9A-Fa-f]{8}))$ |
| 3GPP | 5GGUTI | As defined in TS 23.003 [19] clause 2.10. Given as a hyphen separated concatenation of:  - The string "5gguti".  - MCC given as a three decimal digits.  - MNC given as a two or three digit decimal digits.  - AMF Region ID given as two hexadecimal digits (8 bits).  - The AMF Set ID, AMF Pointer and 5G-TMSI as defined above in 5GSTMSI. | Matches regular expression:  ^(5gguti-([0-9]{3})-([0-9]{2,3})-([0-9A-Fa-f]{2})-([0-3][0-9A-Fa-f]{2})-([0-3][0-9A-Fa-f])-([0-9A-Fa-f]{8}))$ |
| 3GPP | NRCellIdentity | NR Cell ID (NCI), as defined in TS 23.003 [19] clause 19.6A. | TS 29.571 [17] clause 5.4.2 |
| 3GPP | TrackingAreaCode | Tracking area code as defined in TS 23.003 [19] clause 19.4.2.3. | TS 29.571 [17] clause 5.4.2 |

The LDTaskObject may also contain the "IncludeNCGIInResponse" LDTask flag (see table 5.7.2-4A). If this flag is present for such a query, then the response shall contain the NR Cell Global Identity associated with the SUPI at the time of association (see table 5.7.2-5).

Table 5.7.2-4A: LDTaskFlags for LI\_HIQR Requests

|  |  |
| --- | --- |
| Dictionary Owner | Dictionary Name |
| 3GPP | LIHIQRFlags |
| Defined DictionaryEntries | |
| Value | Meaning |
| IncludeNCGIInResponse | A request for returning the NCGI in the response. |

END OF CHANGES