**3GPP SA3LI#91 *602***

**Meeting, 24. – 27.10.2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **33.128** | **CR** | **598** | **rev** | **1** | **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 |  | Core Network | **X** |

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| ***Title:***  | Clarification on the use of the ObservedTime parameter in case of P2Tqueries. |
|  |  |
| ***Source to WG:*** | SA3-LI (ZITiS) |
| ***Source to TSG:*** | SA3 |
|  |  |
| ***Work item code:*** | LI18 |  | ***Date:*** | 2023-10-24 |
|  |  |  |  |  |
| ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Currently it is not clear what shall be provided if no ObservedTime is available as part of a P2T query. In most of the P2T queries the LEA is interested in the current association between permanent and temporary identities and if requested in the corresponding location information (Cell ID).In case multiple associations will match considering the uncertainty time window only the current, up to date association shall be provided. This is also avoiding any mismatch due possible time differences between the different involved systems such as (ICF, IQF and LEA-systems).In case multiple associations will match considering the uncertainty time window only the current, up to date association shall be provided.In addition, the XSD of Annex L is adapted, because in the current specification the parameter ObservedTime is mandatory. This contradicts the specification for OngoingAssociations as well. |
|  |  |
| ***Summary of change:*** | Clarification what is expected in case no ObservedTime is provied as part of a P2T query. Adaptation of the corresponding XSD of Annex L. |
|  |  |
| ***Consequences if not approved:*** | It will be up to the implementer what to send back as a result if no ObservedTime is provided as part of the initial query, which may lead to different results depending on the implementation. |
|  |  |
| ***Clauses affected:*** | 5.7.2.1, 5.8.2, 5.8.3, Annex L |
|  |  |
|  | **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:*** | Merge Request [!232](https://forge.3gpp.org/rep/-/ide/project/sa3/li/merge_requests/232)  |
|  |  |
| ***This CR's revision history:*** | s3i230575 |

##### \*\*\* First Change \*\*\*

#### 5.7.2.1 Request structure

LI\_HIQR requests are represented by issuing a CREATE request for an LDTaskObject (see ETSI TS 103 120 [6] clause 8.3), populated as follows:

Table 5.7.2-1: LDTaskObject representation of LI\_HIQR request

|  |  |  |
| --- | --- | --- |
| Field | Value | M/C/O |
| Reference | Reference to the authorization under which the request is made. The format of this field, and any procedures for allocating or validating it, are for national agreement. | M |
| DesiredStatus | Shall be set to "AwaitingDisclosure". | M |
| RequestDetails | Set according to table 5.7.2-2 below. | M |
| DeliveryDetails | Shall be set to indicate the delivery destination for the LI\_HIQR records (see clause 5.7.2.3 and ETSI TS 103 120 [6] clause 8.3.6.2) unless the delivery destination is known via other means. | C |

The use of any other LDTaskObject parameter is outside the scope of the present document.

Table 5.7.2-2: RequestDetails structure

|  |  |  |
| --- | --- | --- |
| Field | Value | M/C/O |
| Type | Shall be set to one of the RequestType values as defined in table 5.7.2-3. | M |
| ObservedTime | When the RequestValues provides a temporary identity, this field shall be set to the observation time of that temporary identity.When the RequestValues provides a permanent identity, this is the time at which the LEA requires that the permanent to temporary association is applicable. If no ObservedTime is provided the latest association between permanent and temporary identies shall be provided as a result of a P2T query.Shall not be present for requests of type "OngoingIdentityAssociation". | C |
| RequestValues | Set to the target identifier plus additional information required (see clause 5.7.2.2). | M |

NOTE: If the observed time is in the past, providing a successful query response is subject to associations still being available in the cache when the query is made to the ICF.

Table 5.7.2-3: RequestType Dictionary for LI\_HIQR

|  |  |
| --- | --- |
| Dictionary Owner | Dictionary Name |
| 3GPP | RequestType |
|  |
| Defined DictionaryEntries |
| Value | Meaning |
| IdentityAssociation | A request for a single IdentityResponseDetails response to the query provided. |
| OngoingIdentityAssociation | A request for an ongoing series of IdentityResponseDetails responses matching the query provided. May only be used when the RequestValues contains a permanent identifier. The request shall be terminated by updating the LDTaskObject DesiredStatus to "Disclosed". |

Table 5.7.2-3 is formatted in accordance with ETSI TS 103 120 [6] Annex F.

##### \*\*\* End of First Change \*\*\*

##### \*\*\* Second Change \*\*\*

### 5.8.2 Identity association requests

For requests with RequestType "IdentityAssociation" (see table 5.7.2-3), the IQF issues an IdentityAssociationRequest message populated with a RequestDetails structure as follows:

Table 5.8-1: RequestDetails structure for LI\_XQR

|  |  |  |
| --- | --- | --- |
| ETSI TS 103 221-1 [7] field name | Description | M/C/O |
| Type | Shall be set to the RequestType value "IdentityAssociation" as defined in Table 5.7.2-3. | M |
| ObservedTime | Observation time as provided over LI\_HIQR (see clause 5.7.2). | C |
| RequestValues | Set to the target identifier plus additional information specified in the LI\_HIQR request (see clause 5.7.2). | M |

Successful LI\_XQR responses are returned using the IdentityAssociationResponse message. Error conditions are reported using the normal error reporting mechanisms described in TS 103 221-1 [7].

LI\_XQR query responses are represented in XML following the IdentityAssociationResponse schema (see Annex E). The fields of the IdentityAssociationResponse record shall be populated as described in Table 5.7.2-5.

##### \*\*\* End of Second Change \*\*\*

##### \*\*\* Third Change \*\*\*

### 5.8.3 Ongoing identity association requests

For requests with RequestType "OngoingIdentityAssociation", the IQF shall activate a request for ongoing updates at the ICF by sending it an ActivateAssociationUpdates message populated as follows:

Table 5.8-2: ActivateAssociationUpdates message for LI\_XQR

|  |  |  |
| --- | --- | --- |
| Field name | Description | M/C/O |
| OngoingAssociationTaskID | Unique identifier for this request allocated by the IQF. | M |
| SUPI | Permanent identifier for which ongoing identity association updates shall be issued. | M |

The ICF shall acknowledge the receipt of the ActivateAssociationUpdates message by responding with an ActivateAssociationUpdatesAcknowledgement response (see Annex E) containing an IdentityAssociationRecord representing the association active at the time the ICF receives the ActivateAssociationUpdates message. If no such active association exists, the ActivateAssociationUpdatesAcknowledgement response shall not contain an IdentityAssociationRecord. Error conditions are reported using the normal error reporting mechanisms described in ETSI TS 103 221-1 [7].

When a request with RequestType "OngoingIdentityAssociation" is terminated over LI\_HIQR (see table 5.7.2-3), the IQF shall issue a DeactivateAssociationUpdates message (see Annex E) with the appropriate OngoingAssociationTaskID populated. On termination of the request, the ICF shall respond with a DeactivateAssociationUpdatesAcknowledgement message.

While a request with RequestType "OngoingIdentityAssociation" is active, the ICF shall generate an IdentityAssociationUpdate message every time the ICF receives an IEFAssociationRecord or IEFDeassociationRecord over LI\_IEF for the relevant identifier. The message shall contain an IdentityAssociationRecord as described in table 5.7.2-5, and the relevant OngoingAssociationTaskID. The IdentityAssociationUpdate message is sent to the IQF over LI\_XQR with the ICF becoming the "requester" as defined in ETSI TS 103 221-1 [7] clause 4.2. The IQF shall respond with an IdentityAssociationUpdateAcknowledgement message.

##### \*\*\* End of Third Change \*\*\*

##### \*\*\* Fouth Change \*\*\*

***Annex L: urn\_3GPP\_ns\_li\_3GPPQueryExtensions.xsd:***

<?xml version="1.0" encoding="utf-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"

 xmlns="urn:3GPP:ns:li:3GPPLIQueryExtensions:r18:v2"

 xmlns:x1="http://uri.etsi.org/03221/X1/2017/10"

 xmlns:common="http://uri.etsi.org/03280/common/2017/07"

 xmlns:etsi103120common="http://uri.etsi.org/03120/common/2016/02/Common"

 targetNamespace="urn:3GPP:ns:li:3GPPLIQueryExtensions:r18:v2"

 elementFormDefault="qualified">

 <xs:import namespace="http://uri.etsi.org/03221/X1/2017/10"/>

 <xs:import namespace="http://uri.etsi.org/03280/common/2017/07"/>

 <xs:import namespace="http://uri.etsi.org/03120/common/2016/02/Common"/>

 <xs:complexType name="LIQueryRequest">

 <xs:complexContent>

 <xs:extension base="x1:X1RequestMessage">

 <xs:sequence>

 <xs:element name="RequestDetails" type="RequestDetails"/>

 <xs:element name="Flags" type="TaskFlags"/>

 </xs:sequence>

 </xs:extension>

 </xs:complexContent>

 </xs:complexType><xs:complexType name="RequestDetails">

 <xs:sequence>

 <xs:element name="Type" type="DictionaryEntry"/>

 <xs:element name="ObservedTime" type="common:QualifiedDateTime" minOccurs="0"/>

 <xs:element name="RequestValues" type="RequestValues"/>

 </xs:sequence>

 </xs:complexType>

##### \*\*\* End of Fourth Change \*\*\*

##### \*\*\* End of All Changes \*\*\*