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

**, 25 -29 April 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **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:*** | Inconsistent use of the terms “identity” and “identifier” in context with the topic “identifier association” | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI16 | | | | |  | ***Date:*** | | | 2022-04-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | 6 |
|  | *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:*** | | In context with the topic “identifier association” both terms “identifer” and “identitiy” are used, which requires some clarification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | |  | | --- | | Clarification regarding the usage of the terms “identity” and “identifier”. | | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Inconsistent terminology might create avoidable confusions. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.3, 5.2.7, 5.7.1, 5.7.2.1, 5.8.1, 5.8.2, 5.8.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

ADMF LI Administration Function

CC Content of Communication

CSP Communication Service Provider

CUPS Control and User Plane Separation

ICF Identity Caching Function

IEF Identity Event Function

IQF Identity Query Function

IRI Intercept Related Information

LALS Lawful Access Location Services

LEA Law Enforcement Agency

LEMF Law Enforcement Monitoring Facility

LI Lawful Interception

LICF Lawful Interception Control Function

LI\_HI1 LI\_Handover Interface 1

LI\_HI2 LI\_Handover Interface 2

LI\_HI3 LI\_Handover Interface 3

LI\_HI4 LI\_Handover Interface 4

LI\_HIQR Lawful Interception Handover Interface Query Response

LIPF Lawful Interception Provisioning Function

LIR Location Immediate Request

LI\_SI Lawful Interception System Information Interface

LISSF Lawful Interception State Storage Function

LI\_ST Lawful Interception State Transfer Interface

LI\_X1 Lawful Interception Internal Interface 1

LI\_X2 Lawful Interception Internal Interface 2

LI\_X3 Lawful Interception Internal Interface 3

LI\_XEM1 Lawful Interception Internal Interface Event Management Interface 1

LI\_XER Lawful Interception Internal Interface Event Record

LI\_XQR Lawful Interception Internal Interface Query Response

LTF Location Triggering Function

MDF Mediation and Delivery Function

MDF2 Mediation and Delivery Function 2

MDF3 Mediation and Delivery Function 3

MM Multimedia Message

MMS Multimedia Message Service

NPLI Network Provided Location Information

O&M Operations and Management

POI Point Of Interception

RCS Rich Communication Suite

SDP Session Description Protocol

SIP Session Initiation Protocol

SIRF System Information Retrieval Function

SOI Start Of Interception

TF Triggering Function

TNGF Trusted Non-3GPP Gateway Function

TWIF Trusted WLAN Interworking Function

xCC LI\_X3 Communications Content.

xIRI LI\_X2 Intercept Related Information

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

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

### 5.2.7 Usage for realising LI\_XEM1

For the purposes of realising LI\_XEM1 between the LIPF and an IEF, the LIPF plays the role of the ADMF as defined in ETSI TS 103 221-1 [7] reference model (clause 4.2), and the IEF plays the role of the NE.

The IEF shall be enabled by sending the following ActivateTask message from the LIPF.

NOTE: The terms identifier and identity are used interchangeably in clause 5.2.7.

Table 5.2.7-1: ActivateTask message for activating an IEF

|  |  |  |
| --- | --- | --- |
| ETSI TS 103 221-1 field name | Description | M/C/O |
| XID | Shall be set to a value assigned by the LIPF. | M |
| TargetIdentifiers | Shall contain a single Target Identifier of type "IdentityAssociation" (see table 5.2.7-2) | M |
| DeliveryType | Set to "X2Only". | M |
| ListOfDIDs | Shall give the DID of the delivery endpoint of the ICF(s) to which identity association events should be delivered. These delivery endpoints are configured using the CreateDestination message as described in ETSI TS 103 221-1 [7] clause 6.3.1 prior to the task activation. | M |

The following Target Identifier Type is defined for the use of LI\_XEM1. Unless otherwise specified, use of any other Target Identifier Type (including adding a target identifier more than once) shall result in the ActivateTask message being rejected with the appropriate error.

Table 5.2.7-2: Target Identifier Type for LI\_XEM1

|  |  |  |
| --- | --- | --- |
| Identifier type | ETSI TS 103 221-1 [7] TargetIdentifier type | Definition |
| IdentityAssociationTargetIdentifier | TargetIdentifierExtension / IdentityAssociationTargetIdentifier | Empty tag (see XSD schema) |

The IEF may be reconfigured to send identity associations to a different ICF using a ModifyTask message to modify the delivery destinations.

The IEF shall be disabled by sending the following DeactivateTask message from the LIPF.

Table 5.2.7-3: DeactivateTask message for de-activating an IEF

|  |  |  |
| --- | --- | --- |
| ETSI TS 103 221-1 field name | Description | M/C/O |
| XID | Shall be set to the value assigned by the LIPF | M |

The LIPF should send one ActivateTask command to each IEF.

NOTE: The IEF may receive multiple ActivateTask messages conforming to Table 5.2.7-1, each of which can be independently deactivated. The IEF shall remain active as long as at least one valid Task remains active.

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

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

### 5.7.1 General

Functions having an LI\_HIQR interface shall support the use of ETSI TS 103 120 [6] to realise the interface.

In the event of a conflict between ETSI TS 103 120 [6] and the present document, the terms of the present document shall apply.

NOTE: The terms identifier and identity are used interchangeably in clause 5.7.

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

##### \*\*\* Fourth 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.  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 Fourth Change \*\*\*

##### \*\*\* Fifth Change \*\*\*

### 5.8.1 General

LI\_XQR requests are realised using ETSI TS 103 221-1 [7] to transport the IdentityAssociationRequest and IdentityAssociationResponse messages (which are derived from the X1RequestMessage and X1ResponseMessage definitions in ETSI TS 103 221-1 [7]) as described in Annex E.

NOTE: The terms identifier and identity are used interchangeably in clause 5.8.

##### \*\*\* End of Fifth Change \*\*\*

##### \*\*\* Sixth 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) | M |
| 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 Sixth Change \*\*\*

##### \*\*\* Seventh 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 Seventh Change \*\*\*

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