**3GPP TSG-SA3 Meeting #95-LI *s3i240735***

**Las Vegas, US, 29th Oct 2024 – 1st Nov 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.128** | **CR** | **0673** | **rev** | **1** | **Current version:** | **19.0.1** |  |
|  | | | | | | | | |
| *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:*** | Correction and clarification of AKMA LI Rel-19 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3-LI (Ministère de l'Économie et des Finances, NDRE, Ofcom(CH)) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI17 | | | | |  | ***Date:*** | | | 2024-10-31 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. Mid-session intercept of AKMA services calls for the AKMA AAnF to trigger AF(s) that already have received AKMA keys, prior to LI activation. (In analogy to the way SMF triggers UPF.) The triggering as such is described, but its usage in mid-session intercept is not stated. 2. Table 7.9.1.5-2, describing LI\_HI2 records generated by the AKMA AF, erroneously duplicates the AAnFKAKMAApplicationKeyGet record, which is only to be generated by the AKMA AAnF. There is no further normative support for such generation by the AF, neither in the main document, nor in the ASN.1. Indeed, such delivery would just duplicate the same IRI as generated by the AAnF. 3. There are incorrect clause references back to 33.127 in clause 7.9.1.3.1 and 7.9.1.4.1. 4. Incorrect notation "MDF". | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Adding explicit normative text that the AAnF triggers the AF to start AF-specific LI in clause 7.9.1.3.4. 2. Removing the record from table 7.9.1.5-2. 3. Correcting references to 33.127. 4. Change MDF to MDF2. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect (incomplete) LI. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.9.1.3.1, 7.9.1.3.4, 7.9.1.4.1, 7.9.1.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | s3i240610 | | | | | | | | |

## \*\*\*\* START OF CHANGES \*\*\*\*

## \*\*\*\* START OF FIRST CHANGE \*\*\*\*

##### 7.9.1.3.1 General

The IRI-POI present in the AAnF shall send the xIRIs over LI\_X2 for each of the events listed in TS 33.127 [5] clause 7.15.3.1.4, the details of which are described in the following clauses.

## \*\*\*\* END OF FIRST CHANGE \*\*\*\*

## \*\*\*\* START OF SECOND CHANGE \*\*\*\*

##### 7.9.1.3.4 AAnF Start of intercept with established AKMA key material

The IRI-POI in the AAnF shall generate an xIRI containing an AAnFStartOfInterceptWithEstablishedAKMAKeyMaterial record when the IRI-POI present in the AAnF detects that interception is activated on a target UE that has already established AKMA key material. The IRI-TF in the AAnF shall also trigger the IRI-POI of AFs within the scope of the warrant as described in clause 7.9.1.2.3.

Table 7.9.1.3-4: AAnFStartOfInterceptWithEstablishedAKMAKeyMaterial record

|  |  |  |
| --- | --- | --- |
| Field name | Value | M/C/O |
| aKID | AKMA Anchor Key Identifier (currently valid). | M |
| kAKMA | AKMA Anchor Key associated with aKID. | C |
| aFKeyList | List of all available (aFID, kAF, kAFExpTime)-tuples which are available, have not expired and complies with provisioning. | C |

## \*\*\*\* END OF SECOND CHANGE \*\*\*\*

## \*\*\*\* START OF THIRD CHANGE \*\*\*\*

##### 7.9.1.4.1 General

The IRI-POI present in the AF shall send the xIRIs over LI\_X2 for each of the events listed in TS 33.127 [5] clause7.15.3.1.4, the details of which are described in the following clauses.

## \*\*\*\* END OF THIRD CHANGE \*\*\*\*

## \*\*\*\* START OF FOURTH CHANGE \*\*\*\*

#### 7.9.1.5 Generation of IRI over LI\_HI2

When an xIRI is received over LI\_X2 from the IRI-POI in the AAnF or AF, the MDF2 shall send the IRI message over LI\_HI2 without undue delay. The IRI message shall contain a copy of the relevant record received from LI\_X2. The record may be enriched by other information available at the MDF2.

The timestamp field of the ETSI TS 102 232-1 [9] PSHeader structure shall be set to the time at which the AAnF/AF event was observed (i.e. the timestamp field of the xIRI).

Table 7.9.1.5-1 shows the IRI type (see ETSI TS 102 232-1 [9] clause 5.2.10) to be used for each record type.

Table 7.9.1.5-1: IRI type for AAnF originated messages

|  |  |
| --- | --- |
| Record type | IRI Type |
| AAnFAnchorKeyRegister | BEGIN |
| AAnFKAKMAApplicationKeyGet | CONTINUE |
| AAnFStartOfInterceptWithEstablishedAKMAKeyMaterial | BEGIN |
| AAnFAKMAContextRemovalRecord | END |

IRI messages associated with the same A-KID from the same AAnF shall be assigned the same CIN.

Table 7.9.1.5-2: IRI type for AF originated messages

|  |  |
| --- | --- |
| Record type | IRI Type |
|  |  |
| AFAKMAApplicationKeyRefresh | CONTINUE |
| AFStartOfInterceptWithEstablishedAKMAApplicationKey | BEGIN |
| AFAuxiliarySecurityParameterEstablishment | CONTINUE |
| AFApplicationKeyRemoval | END |

IRI messages associated with the same AKID from the same AF shall be assigned the same CIN.

## \*\*\*\* END OF FOURTH CHANGE \*\*\*\*

## \*\*\*\* END OF ALL CHANGES \*\*\*\*