**3GPP TSG-SA3 Meeting #103-e *draft\_S3-211551-r4***

**e-meeting, 17 – 28 May 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.535** | **CR** | **0072** | **rev** | **-** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <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:*** | AAnF AKMA context removal | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE, Samsung | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AKMA | | | | |  | ***Date:*** | | | 2021-04-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | If KAF expires in AF, AF can still request a key refresh from AAnF. Since AAnF has no information as to whether UE has been purged from the network, it will allow refresh. AAnF need to delete the AKMA context. And in clause 4.5.3 of TS 23.502, it described how to purge the subscriber data in AMF. So it is necessary to clarify how to purge the subscriber data in AAnF. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | This CR proposes the following changes:   1. To add AAnF selection by UDM in clause 4.2.5. 2. To add a new clause 6.X to capture the procedure for AKMA context removal support in AKMA. 3. To add the Naanf\_AKMA\_AnchorKey\_Deregistration servise in new clause 7.1.X | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Lack of proposed procedure/service leads to the misuse of AKMA services. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.5, 6.X(new),7.1.X(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\* 1st CHANGE\*\*\*

### 4.2.5 UDM

The UDM is defined in TS 23.501 [3] with the additional functions:

- UDM stores AKMA subscription data of the subscriber.

- UDM performs the AAnF selection.

\*\*\* NEXT CHANGE\*\*\*

## 6.X AAnF AKMA context removal

## 6.X.1 General

This procedure is used to remove the AKMA context in the AAnF. NF consumers may initiate this procedure due to local policy.



**Figure 6.X-1: AAnF AKMA context removal procedure**

1. NF initiates an AAnF AKMA context removal procedure to delete the AKMA context in AAnF.

2. NF discovers the AAnF of the UE, as specified in clause 6.X and sends a Naanf\_AKMA\_AnchorKey\_Deregistration request to AAnF to remove AKMA context for the UE.

3. AAnF shall delete AKMA Context (e.g. A-KID, KAKMA) from its local database.

4. AAnF sends aNaanf\_AKMA\_AnchorKey\_Deregistration response to NF.

\*\*\* NEXT CHANGE\*\*\*

### 7.1.X Naanf\_AKMA\_AnchorKey\_Deregistration operation

**Service operation name:** Naanf\_AKMA\_AnchorKey\_Deregistration.

**Description:** The NF consumer requests the AAnF to remove the AKMA related key material.

**Input, Required:** SUPI

**Input, Optional:** None.

**Output, Required:** None.

**Output, Optional:** None.

\*\*\* END OF CHANGES\*\*\*