**3GPP TSG-SA3 Meeting #116 *S3-241824r2***

Jeju, South Korea, 20th - 24th May 2024

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.535** | **CR** | **0210** | **rev** | **-** | **Current version:** | **18.3.0** |  |
|  | | | | | | | | |
| *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:*** | AF disabling the encryption when roaming | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Verizon | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AKMA | | | | |  | ***Date:*** | | | 2024-05-10 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | AKMA service disable notification is defined where it is mentioned that AF may stop the UE service when roaming.  However, it is up to the AF. AF may stop the UE service or stop the security. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add: Once the AKMA service disable (roaming) indication is received at the AF, the AF can disable the encryption.  Add: AF is also informed about the roaming so that AF can take the decision to stop the AKMA service or the encryption. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Unclear specification | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.8, 7.1.5, | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

## 6.8 Notification about AKMA service disabling

This procedure is used when the AKMA sessions have already been started (before roaming was detected), and as soon as PLMN change is detected at the AAnF, the AAnF may execute this procedure based on the roaming policy.



Figure 6.8.1-1: AAnF notification to AF about AKMA service disable

1. UE registers with a (H)PLMN.

2. UE is accessing the AF and key material is provided to AF as described in 6.2.1. While accessing the AAnF, AF may also provide the Notification URI.

3. UE is getting registered in a VPLMN and AAnF detects the PLMN change via the Nudm\_EventExposure\_Notification received from UDM.

4. AAnF determines if AF(s) have subscribed to receive notifications for AKMA service disabling and/or roaming policy is configured and restrict the AKMA access in the VPLMN; if yes, steps 6 and 7 are executed. Otherwise, steps 6 and 7 are skipped.

5. If AF(s) are determined at step 5, the AAnF shall send notifications to the subscribed AF(s) about AKMA roaming via Naanf\_AKMA\_ServiceDisableNotification with A-KID.

7. The AF shall send the response and based on the notification and internal policy, the AF may stop the UE service, may stop the encryption.

NOTE: By stopping the encryption (e.g., TLS 1.2 NULL cypher negotiation), LI interception could work in the VPLMN.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*NEXT CHANGES\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 7.1.5 Naanf\_AKMA\_ApplicationKey\_ AnonUser\_Getservice operation

**Service operation name:** Naanf\_AKMA\_ApplicationKey\_AnonUser\_Get.

**Description:** The NF consumer requests only the AKMA Application Key from the AAnF. This service is for allowing anonymous user access to the AF based on A-KID (i.e., UE identification is not required at the AF). The A-KID functions as a temporary user identifier.

**Input, Required:** A-KID, AF\_ID

**Input, Optional:** Service Disable URI.

**Output, Required:**

**Output, Optional:** KAF, KAF expiration time, or failure indication.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*NEXT CHANGES\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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