**3GPP TSG-SA3 Meeting #107-e *S3-220694-r1***

**e-meeting, 16 - 20 May 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.535** | **CR** | **0126** | **rev** | **-** | **Current version:** | **17.05.0** |  |
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| *For* [***HELP***](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 anonymization api | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2022-05-10 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
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| ***Reason for change:*** | | At the last meeting, CR S3-220569 was agreed to define the anonymized API at the AAnF. This API can be invoked by AF directly when AF is located in the operator domain. It is not clear if the same API can be used by NEF as well when AF outside the operator domain wants to access the AAnF service for anonymized users. NEF usually needs SUPI for charging purposes. Therefore, even if AF (non-trusted ) invokes the NEF api for an anonymized user and if NEF needs SUPI, then NEF invokes the AAnF api where AAnF can provide SUPI to NEF. Then it is an NEF responsibility to not pass SUPI to AF.  Secondly, if AF is not trusted and does not want to know UEID, (anonymization use case) should be able to invoke the NEF api with indication of anonymization. However, the NEF API is not enhanced; therefore, AF will get UEID even if AF is not interested. | | | | | | | | |
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| ***Summary of change:*** | | Added: 'UEID Not needed' indication in NEF api.. | | | | | | | | |
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| ***Consequences if not approved:*** | | The missing clarification causes NEF to always invoke the anonymized AAnF API if AF is requesting the same.  Non trusted AF (behind NEF) will always get UEID even if it is not interested (anonymization case). | | | | | | | | |
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| ***Clauses affected:*** | | 6.3, 7.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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

## 6.3 AKMA Application Key request via NEF

Figure 6.3-1 shows the procedure used by the AF to request KAF from the AAnF via NEF, when the AF is located outside the operator's network.



Figure 6.3-1: AKMA Application Key request via NEF

1. When the AF is about to request AKMA Application Key for the UE from the AAnF, e.g. when UE initiates application session establishment request as in clause 6.2, the AF discovers the HPLMN of the UE based on the A-KID and sends the request towards the AAnF via NEF service API. The request shall include the A-KID and the AF\_ID and optionally UE Id not needed indication.

NOTE: In the case of architecture without CAPIF support, the AF is locally configured with the API termination points for the service. In the case of architecture with CAPIF support, the AF obtains the service API information from the CAPIF core function via the Availability of service APIs event notification or Service Discover Response as specified in TS 23.222 [5].

2. If the AF is authorized by the NEF to request KAF, the NEF discovers and selects an AAnF as defined in clause 6.7.

3. The NEF forwards the KAF request to the selected AAnF.

The AAnF shall process the request in the same way as specified in clause 6.2 with following changes:

If KAKMA is present in AAnF, the AAnF shall continue with step 4 in this clause.

If KAKMA is not present in the AAnF, the AAnF shall continue with step 5 in this clause with an error response.

4. The AAnF generates the KAF as specified in clause 6.2 and sends the response to the NEF with the KAF, the KAF expiration time (KAF exptime) and SUPI.

5. The NEF forwards the response to the AF with the KAF, the KAF expiration time (KAF exptime) and optionally GPSI (external ID). Based on local policy, the NEF uses the Nudm\_SubscriberDataManagement service which is specified in TS 29.503[11] to translate SUPI to GPSI (external ID) and optionally include GPSI (external ID) in the response. If UE Id not needed indication is received in the incoming request, the NEF shall not provide the GPSI (external ID) to AF. The NEF shall not send the SUPI to the AF.

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\*\*\*\* Next change\*\*\*\*

### 7.3.2 Nnef\_AKMA\_ApplicationKey\_Get service operation

**Service operation name:** Nnef\_AKMA\_ApplicationKey\_Get.

**Description:** The NF consumer requests the NEF to provide AF related key material.

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

**Input, Optional:** UEID not needed indication.

**Output, Required:** KAF, KAF expiration time.

**Output, Optional:** GPSI (external ID).

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