**3GPP TSG-SA3 Meeting #108e *S3-221777***

**e-meeting, 22 - 26 August 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.501** | **CR** | **1428** | **rev** | **-** | **Current version:** | **17.06.0** |  |
|  | | | | | | | | |
| *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:*** | Correction in AUSF api related to NSWO | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, Cablelabs | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NSWO\_5G | | | | |  | ***Date:*** | | | 2022-08-15 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | As per Annex S, section S.3.2, step 16, the AUSF provides MSK to NSWOF. However, AUSF API details in section 14.1.2.1 missed to cover the details of the MSK. | | | | | | | | |
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| ***Summary of change:*** | | Section 14.1.2.1 is updated with the detail of MSK | | | | | | | | |
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| ***Consequences if not approved:*** | | Inconsistant specification | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 14.1.2.1, 14.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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

#### 14.1.2.1 Nausf\_UEAuthentication\_Authenticate service operation

**Service operation name:** Nausf\_UEAuthentication\_authenticate.

**Description:** Authenticate the UE and provides related keying material.

**Input, Required:** One of the options below.

1. In the initial authentication request: SUPI or SUCI, serving network name.

2. In the subsequent authentication requests depending on the authentication method:

a. 5G AKA: Authentication confirmation message with RES\* as described in clause 6.1.3.2 or Synchronization Failure indication and related information (i.e. RAND/AUTS).

b. EAP-AKA’: EAP packet as described in RFC 4187 [21] and RFC 5448 [12], and Annex F.

**Input, Optional:** Disaster Roaming service indication, NSWO indicator.

NOTE: If NSWO indicator is present then the serving network name contains "5G:NSWO".

**Output, Required:** One of the options below.

1. Depending on the authentication method:

a. 5G AKA: authentication vector, as described in clause 6.1.3.2 or Authentication confirmation acknowledge message.

b. EAP-AKA’: EAP packet as described in RFC 4187 [21] and RFC 5448 [12], and Annex F.

2. Authentication result and if success the master key which are used by AMF to derive NAS security keys and other security key(s).

**Output, Optional:** SUPI if the authentication was initiated with SUCI, MSK if NSWO indicator was received as input.

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

### 14.2.2 Nudm\_UEAuthentication\_Get service operation

**Service operation name:** Nudm\_UEAuthentication\_Get

**Description:** Requester NF gets the authentication data from UDM. For AKA based authentication, this operation can be also used to recover from synchronization failure situations. If SUCI is included, this service operation returns the SUPI.

**Inputs, Required:** SUPI or SUCI, serving network name.

**Inputs, Optional:** Synchronization Failure indication and related information (i.e. RAND/AUTS) , Disaster Roaming service indication, NSWO indicator.

NOTE: If NSWO indicator is present then the serving network name contains "5G:NSWO".

**Outputs, Required:** Authentication method

Editor's note: How the UDM indicates to the AUSF to run primary authentication with an external Credentials holder is FFS.

Outputs, Optional**:** SUPI if SUCI was used as input. Depending on the authentication method, authentication data (e.g. AKA authentication vector) for the SUPI. AKMA Indication and Routing indicator, if the subscriber has an AKMA subscription (see TS 33.535 [91]).

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