**3GPP TSG-SA3 Meeting #103-e *S3-21xxxx***

**e-meeting, 17 - 28 May 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **33.501** | **CR** |  **0XXX** | **rev** | **-** | **Current version:** | **16.6.0** |  |
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| *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:***  | Clarifying the support for authentication methods in an SNPN |
|  |  |
| ***Source to WG:*** | Qualcomm Incorporated |
| ***Source to TSG:*** | SA3 |
|  |  |
| ***Work item code:*** | Vertical\_LAN\_SEC |  | ***Date:*** |  2021-04-21 |
|  |  |  |  |  |
| ***Category:*** |  **F** |  | ***Release:*** | Rel-16 |
|  | *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 canbe 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:*** | Annex I.2.2 uses the term serving network to discuss choice of support of authentication method as there is no roaming with SNPNs. This can cause confusion on what the network elements needs to support, e.g. whether an AMF in a SNPN supports 5G AKA and EAP authentication methods.  |
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| ***Summary of change:*** | Clarify an AMF in an SNPN supports 5G AKA and EAP authentication methods.  |
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| ***Consequences if not approved:*** | Not clear that in deployments of SNPNs that it is the capabilities of the UE and UDM (and not the AMF) that determines the possible authentication methods. |
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| ***Clauses affected:*** | Annex I.2.2 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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

I.2.2 EAP framework, selection of authentication method, and EAP method credentials

The EAP authentication framework is supported by the 5GS as described in clause 6.1.1.2.

The UE and the SNPN may support 5G AKA, EAP-AKA', or any other key-generating EAP authentication method.

NOTE X: The requirement on authentication method support for an SNPN follows that of a PLMN with the AMF of the SNPN supporting 5G AKA and EAP based authentication methods and the UDM of the SNPN only needing to support the chosen authentication method((s).

Selection of the authentication methods is dependent on NPN configuration.

NOTE 1: For EAP-AKA' (as well as 5G AKA), the selection is described in clause 6.1.2. For authentication, that is not using EAP-AKA' (or 5G AKA), the selection is NPN operator deployment specific and out of scope of this specification.

When an EAP authentication method other than EAP-AKA' is selected, the chosen method determines the credentials needed in the UE and network. These credentials, called the EAP-method credentials, shall be used for authentication.

NOTE 2: How credentials for EAP methods other than EAP-AKA' are stored and processed within the UE is out of the scope for standalone non-public networks.

NOTE 3: Storage and processing of credentials for EAP-AKA' (as well as 5G AKA) is described in clause 6 of the present document.

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