**3GPP TSG-SA3 Meeting #99e *S3-201237-r1***

**e-meeting, 11 – 15 May 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **33.819** | **CR** | **0002** | **rev** | **1** | **Current version:** | **16.0.0** |  |
|  |
| *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 | **x** | ME | **x** | Radio Access Network | **x** | Core Network | **x** |

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| ***Title:***  | Resolution of ed note on serving network name |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, Interdigital |
| ***Source to TSG:*** | S3 |
|  |  |
| ***Work item code:*** | FS\_VERTICAL\_LAN\_SEC |  | ***Date:*** | 15.5.2020 |
|  |  |  |  |  |
| ***Category:*** | **D** |  | ***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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | Key Issue #1.1: “Completing AKA based authentication and calculating KSEAF for SNPNs” was referencing a solution in SA2 study on serving network id creation. The stage 3 has not adopted a shorter version of SN Id. |
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| ***Summary of change:*** | Deletion of editor’s note since the SN id is defined in 24.501 as PLMN ID:NID for SNPNs. |
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| ***Consequences if not approved:*** | Unresolved editor’s note. |
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| ***Clauses affected:*** | 5.1.1.1 |
|  |  |
|  | **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:*** | S3-200376 |

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

###

#### 5.1.1.1 Key issue details

Binding the key to the serving network identity is a requirement for 5G security [1]. For SNPNs, the network identity used (see solution #1 in TR 23.734 [3]) is changed and may not even contain a complete PLMN ID. Hence the standard needs to clearly define the input parameters used to calculate KSEAF as well as KAUSF, RES\* and XRES\* for 5G AKA and IK' and CK' for EAP-AKA' in both the network and UE. Without such a clear definition the security set-up will fail.

When introducing SNPNs, it should also be ensured that the SNPN cannot masquerade as a public network, i.e., the keys derived for a public network and SNPN are different.

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