**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 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***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. | | | | | | | | |
|  | |  | | | | | | | | |
| ***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. | | | | | | | | |
|  | |  | | | | | | | | |
| ***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

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#### 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