**3GPP TSG-SA3 Meeting #100e *S3-201946r1***

**e-meeting, 17 - 28 August 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Assignment of FC values for key derivations |
|  |  |
| ***Source to WG:*** | Qualcomm Incorporated, China Mobile |
| ***Source to TSG:*** | S3 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** | 06-08-2020 |
|  |  |  |  |  |
| ***Category:*** |  |  | ***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:*** | Need to assign FC values to the AKMA TS |
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| ***Summary of change:*** | Assign AKMA values to the AKMA TS |
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| ***Consequences if not approved:*** | AKMA key derivations are not fully standardised |
|  |  |
| ***Clauses affected:*** | A.1.2, A.2, A.3, A.4 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **x** |  |  Other core specifications  | TS 33.220 CR 0203  |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** | This CR should only be approved if the related CR is approved |
|  |  |
| ***This CR's revision history:*** | Rev 1: merged with S3-201786 |

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

A.1.2 FC value allocations

The FC number space used is controlled by TS 33.220 [4], FC values allocated for the present document are in the range of 0x80 – 0x82.

A.2 KAKMA derivation function

When deriving a KAKMA from KAUSF, the following parameters shall be used to form the input S to the KDF:

- FC = 0x80;

- P0 = "AKMA";

- L0 = length of "AKMA"; (i.e. 0x00 0x04)

- P1 = SUPI;

- L1 = length of SUPI.

The input key KEY shall be KAUSF.

A.3 A-TID derivation function

When deriving the A-TID from KAUSF, the following parameters shall be used to form the input S to the KDF:

- FC = 0x81;

- P0 = "A-TID";

- L0 = length of "A-TID"; (i.e. 0x00 0x05)

- P1 = SUPI;

- L1 = length of SUPI.

The input key KEY shall be KAUSF.

A.4 KAF derivation function

When deriving a KAF from KAKMA, the following parameters shall be used to form the input S to the KDF:

- FC = 0x82;

- P0 =AF\_ID;

- L0 = length of AF\_ID

The input key KEY shall be KAKMA.

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