**3GPP TSG-CT WG1 Meeting #127bis-eC1-21xxxx**

**Electronic meeting, 25-29 January 2021 *was* C1-210057**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **2949** | **rev** | **1** | **Current version:** | **17.1.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  |  |
|  |  |
| ***Source to WG:*** | ZTE |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | AKMA-CT |  | ***Date:*** | 2021-01-27 |
|  |  |  |  |  |
| ***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 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)Rel-17 (Release 17)* |
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| ***Reason for change:*** | Following facts should be clarified:* AKMA is an optional feature for UE and network.
* Only UE supporting AKMA can handle the request of related AKMA keys from upper layer.
* The application server communicated with UE using AKMA mechanism is an AKMA Application Function other than normal application server.
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| ***Summary of change:*** | The AKMA is an optional feature that may be supported by the UE and the 5GCN.UE securely exchanges data with an AKMA Application Function. |
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| ***Consequences if not approved:*** | Unclear description about AKMA feature. |
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| ***Clauses affected:*** | 4.21 |
|  |  |
|  | **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:*** |  |

\* \* \* 1st Change \* \* \* \*

4.21 Authentication and Key Management for Applications (AKMA)

AKMA is an optional feature that may be supported by the UE and the 5GCN.

NOTE 1: The requirements for the network functions supporting AKMA in 5GCN are specified in 3GPP TS 33.535 [24A].

The purpose of AKMA is to provide authentication and key management to applications based on 3GPP credentials used for 5GS access as specified in 3GPP TS 33.535 [24A], which allows the UE to securely exchange data with an AKMA application function.

Upon receiving a request from upper layers to obtain AKMA Anchor Key (KAKMA) and AKMA Key Identifier (A-KID), the UE supporting AKMA shall derive the KAKMA and the AKMA Temporary Identifier (A-TID) from the KAUSF if available as specified in 3GPP TS 33.535 [24A], shall further derive the A-KID from the A-TID as specified in 3GPP TS 33.535 [24A] and shall provide KAKMA and A-KID to the upper layers.

NOTE 2: The upper layers derive the AKMA Application Key (KAF) from KAKMA as specified in 3GPP TS 33.535 [24A].

NOTE 3: The knowledge of whether a certain application needs to use AKMA or not is application specific and is out of the scope of 3GPP.

NOTE 4: The exact method of securing the data exchange at upper layers using KAF is application specific and is out of the scope of 3GPP.

\* \* \* End of Change \* \* \* \*