**3GPP TSG-CT WG1 Meeting #138-eC1-22xxxx**

**E-Meeting, 10th – 14th October 2022 *was* C1-225736**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** | **4717** | **rev** | **1** | **Current version:** | **18.0.1** |  |
|  | | | | | | | | |
| *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:*** | EAP-TTLS used between the UE and the DCS | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE, Ericsson | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNPN | | | | |  | ***Date:*** | | | 2022-10-13 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to I.9.2.3 of TS 33.501, when the primary authentication is performed between the UE and the DCS via the AUSF using EAP-TTLS, Annex U (Primary authentication using EAP-TTLS in SNPNs) can be used.  Therefore, EAP-TTLS can be used between the UE and the DCS as well. | | | | | | | | |
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| ***Summary of change:*** | | Add "DCS" case in: The AAA server of the CH ***or the DCS*** may support acting a server of a legacy authentication protocol as specified in 3GPP TS 33.501.  Backward compatibility analysis:  This CR is backward compatible since the change just aligns with stage 2 requirement. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incomplete statement | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4.1.2.3A.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

5.4.1.2.3A.2 EAP-TTLS with two phases of authentication

The UE may support acting as EAP peer of EAP-TTLS with two phases of authentication as specified in 3GPP TS 33.501 [24] and acting as peer of a legacy authentication protocol as specified in 3GPP TS 33.501 [24]. The AUSF may support acting as EAP server of EAP-TTLS with two phases of authentication as specified in 3GPP TS 33.501 [24]. The AAA server of the CH or the DCS may support acting a server of a legacy authentication protocol as specified in 3GPP TS 33.501 [24].

When EAP-TTLS with two phases of authentication as specified in 3GPP TS 33.501 [24] is used for primary authentication and key agreement in an SNPN:

a) requirements in subclause 5.4.1.2.3A.1 shall apply in addition to requirements specified in 3GPP TS 33.501 [24] annex U.

b) indication to use MSK for derivation of KAUSF after success of primary authentication and key agreement procedure is not included in:

1) the default UE credentials for primary authentication, if the UE is registering or registered for onboarding services in SNPN; or

2) credentials in the selected entry of the "list of subscriber data", if the UE is not registering or registered for onboarding services in SNPN.

c) the SUPI of the UE is in the form of a SUPI with the SUPI format "network specific identifier" containing a network-specific identifier.

NOTE: Support of EAP-TTLS with two phases of authentication is based on the informative requirements as specified in 3GPP TS 33.501 [24].

\* \* \* End of Changes \* \* \* \*