**3GPP TSG-SA3 Meeting #99-e *S3-201032***

**e- meeting, 11 – 15 May 2020**

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| *CR-Form-v11.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.401** | **CR** | **0694** | **rev** | **-** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | UE caps protection using AS security in EPS Rel-16 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_CIoT | | | | |  | | ***Date:*** | | 2020-04-30 |
|  |  | | | |  | | |  | |  |
| ***Category:*** | **C** |  | | | | | | ***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)* | |
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| ***Reason for change:*** | | Protection of UE capability transfer procedure has been agreed for EPS Rel-15. So, EPS Rel-16 needs a corresponding update. | | | | | | | | |
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| ***Summary of change:*** | | It is proposed to rely on AS security for protection of RRC procedures.  A new clause has been added based on the content of Rel-15 with the following change. Instead of adding an exception, a note has been added to more generally states that when there is no AS security, security in RRC layer does not exist. | | | | | | | | |
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| ***Consequences if not approved:*** | | Security of EPS Rel-16 UE capability transfer procedure will be missing, and the TS will be insecure. | | | | | | | | |
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| ***Clauses affected:*** | | 7.4.X (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

7.4.X RRC UE capability transfer procedure

The network should activate AS security (i.e., perform a successful AS SMC procedure) before running the RRC UE capability transfer procedure.

With the exception of unauthenticated emergency calls and the UEs using Control plane CIoT optimization, if the network had acquired UE capabilities using RRC UE capability transfer procedure before AS security activation, then the network shall not store them locally for later use and shall not send them to other network entities. In that case, the network shall re-run the RRC UE capability transfer procedure after a successful AS SMC procedure.

NOTE 1: For UEs without AS security (e.g., UEs using Control Plane CIoT optimization), RRC UE radio capability transfer procedure cannot be protected.

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