**3GPP TSG-CT WG4 Meeting #99eC4-204abc**

**E-Meeting, 18th – 28th April 2020 *was* C4-204289**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **23.003** | **CR** | **0596** | **rev** | **1** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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| ***Title:*** | Correction on Truncated 5G-S-TMSI | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_CIoT | | | | |  | ***Date:*** | | | 2020-08-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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:*** | | Keep in line with stage 2 TS23.501, In current solution in stage 2, the Truncated 5G-S-TMSI Configuration to UE will be configured by AMF, not by RAN any more, see TS 23.501 clause 5.31.4.3, and in addition there is a note as below in TS 23.501 clause 5.31.4.3  *NOTE: Network sharing default configuration of the sizes of the truncated components is described in TS 23.003 [19].*  How to cofigure the sizes of the truncated components should be added in 23.003. | | | | | | | | |
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| ***Summary of change:*** | | 1. Correct the way of Truncated 5G-S-TMSI Configuration to UE. 2. Add the text to describe how to configure and distribute m and n in network sharing scenario. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misalignment with stage 2. | | | | | | | | |
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| ***Clauses affected:*** | | 2.12 | | | | | | | | |
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|  | | **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:*** | | Rev1：   1. Corrected reference typos on cover page 2. Added "3GPP" before reference TS 24.501 in new text in clause 2.12. | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The start of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 2.12 Structure of the Truncated 5G-S-Temporary Mobile Subscriber Identity (Truncated 5G-S-TMSI)

The Truncated 5G-S-TMSI is a 40 bit UE identifier constructed from the 5G-S-TMSI. It is used in RRC Connection Re-Establishment for the control plane for NB-IoT as described in 3GPP TS 36.300 [91]. The Truncated 5G-S-TMSI shall be constructed from the Truncated AMF set ID, the Truncated AMF Pointer and the Truncated 5G-TMSI:

<Truncated 5G-S-TMSI> = <Truncated AMF set ID><Truncated AMF Pointer><Truncated 5G-TMSI>

Truncated AMF set ID is n least significant bits of AMF Set ID, where n is no greater than 10 bits.

Truncated AMF Pointer is m least significant bits of AMF Pointer, where m is no greater than 6 bits.

Truncated 5G-TMSI is (40-n-m) least significant bits of 5G-TMSI.

The values n and m are configurable based on network deployment. The value n+m shall be larger or equal to 8 bits.

NOTE: Depending on network deployment it is up to operator configuration to ensure that Truncated AMF Set ID and Truncated AMF Pointer identify the AMF uniquely, and that Truncated 5G-TMSI identifies the UE uniquely within the serving AMF.

The NG-RAN and AMF are configured with the values n and m respectively, and NG-RAN is configured with how to recreate AMF Set ID from Truncated AMF Set ID, AMF Pointer from Truncated AMF Pointer, and 5G-TMSI from Truncated 5G-TMSI. The configuration of these parameters are specific to each PLMN.

The AMF configures the UE with the Truncated 5G-S-TMSI Configuration that provides the sizes of the components of the Truncated 5G-S-TMSI as described in 3GPP TS 24.501 [125] during the Registration and UE Configuration Update procedures.

For Network Sharing, the sharing NG-RAN is configured with the respective values n and m that are specific to each PLMN, and AMF is configured with the same values n and m as ones configured on NG-RAN per PLMN. The AMF configures the UE with the corresponding values n and m according to the PLMN which the UE accesses to during the Registration procedure.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The end of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*