**3GPP TSG-SA3 Meeting #102-e *draft\_S3-210480-r1***

**e-meeting, 18th - 29th January 2021**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **1062** | **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 | **X** | Core Network | **X** |

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| ***Title:*** | 5G GUTI re-allocation | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated, Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_CIoT | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | |  |
|  | *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:*** | | SA plenary sent an LS (S3-202861) asking SA3 to take into account the SA plenary decision on the working agreement on 5G-GUTI reallocation for CIoT and update the specification if needed and submit related CRs for approval to SA#90e and CT#90e.  This CR implements the SA plenary working assumption.  Also, the existing 5G-GUTI reallocation requirement when AMF receives a Service Request from a UE in response to a Paging message is aligned with the text in TS 24.501. | | | | | | | | |
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| ***Summary of change:*** | | The following sentence is added to clause 6.12.3  “Upon receiving an indication from the lower layers that the RRC connection has been resumed for a UE in 5GMM-IDLE mode with suspend indication in response to a Paging message, the AMF shall send a new 5G-GUTI to the UE. This new 5G-GUTI shall be sent before the current NAS signalling connection is released or the suspension of the N1 NAS signalling connection.”  The existing 5G-GUTI reallocation requirement when AMF receives a Service Request from a UE in response to a Paging message is modified as:  “Upon receiving Service Request message sent by the UE in response to a Paging message, the AMF shall send a new 5G-GUTI to the UE. This new 5G-GUTI shall be sent before the current NAS signalling connection is released or the N1 NAS signalling connection is suspended.” | | | | | | | | |
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| ***Consequences if not approved:*** | | Misalignment with other WG specifications | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.12.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*Start of Changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 6.12.3 Subscription temporary identifier

A new 5G-GUTI shall be sent to a UE only after a successful activation of NAS security. The 5G-GUTI is defined in TS 23.003 [19].

Upon receiving Registration Request message of type "initial registration" or "mobility registration update" from a UE, the AMF shall send a new 5G-GUTI to the UE in the registration procedure.

Upon receiving Registration Request message of type "periodic registration update" from a UE, the AMF should send a new 5G-GUTI to the UE in the registration procedure.

Upon receiving Service Request message sent by the UE in response to a Paging message, the AMF shall send a new 5G-GUTI to the UE. This new 5G-GUTI shall be sent before the current NAS signalling connection is released or the N1 NAS signalling connection is suspended.

Upon receiving an indication from the lower layers that the RRC connection has been resumed for a UE in 5GMM-IDLE mode with suspend indication in response to a Paging message, the AMF shall send a new 5G-GUTI to the UE. This new 5G-GUTI shall be sent before the current NAS signalling connection is released or the suspension of the N1 NAS signalling connection.

NOTE 1: It is left to implementation to re-assign 5G-GUTI more frequently than in cases mentioned above, for example after a Service Request message from the UE not triggered by the network.

NOTE 2: It is left to implementation to generate 5G-GUTI containing 5G-TMSI that uniquely identifies the UE within the AMF.

5G-TMSI generation should be following the best practices of unpredictable identifier generation.

A new I-RNTI shall be sent to a UE only after a successful activation of AS security.

On transition of UE to RRC INACTIVE state requested by gNB during RRC Resume procedure or RNAU procedure, the gNB shall assign a new I-RNTI to the UE.

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