**3GPP TSG-CT WG1 Meeting #136-e *Rev\_*C1-223665**

**E-Meeting, 6th – 20th April 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **4359** | **rev** | **1** | **Current version:** | **17.6.1** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | Deleting PEIPS assistance information on Registration procedure failure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Apple | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17, NR\_UE\_pow\_sav\_enh | | | | |  | ***Date:*** | | | 2022-04-30 |
|  |  | | | |  | |  | | |  |
| ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The UE receives PEIPS assistance information from network during Registration and CUC procedures.  If the UE does not receive any Negotiated PEIPS assistance information from the network, the UE should delete any stored PEIPS assistance information received from the network.  Otherwise, the UE may end up with stale and incorrect Paging subgroup ID information that may no longer be applicable. | | | | | | | | |
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| ***Summary of change:*** | | If the UE did not receive the Negotiated PEIPS assistance information IE during the last registration procedure, the UE shall delete any existing PEIPS assistance information received from the network. | | | | | | | | |
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| ***Consequences if not approved:*** | | The UE may end up storing stale information about Paging subgroup ID which may no longer be applicable. | | | | | | | | |
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| ***Clauses affected:*** | | 5.3.25 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \*\*\*\*\*

### 5.3.25 Paging Early Indication with Paging Subgrouping Assistance

A UE may indicate its capability to support NR paging subgrouping during registration procedure when the UE:

- initiates a registration procedure with 5GS registration type IE not set to "emergency registration"; and

- does not have an active emergency PDU session.

If a UE supporting NR paging subgrouping did not indicate its capability to support NR paging subgrouping during the last registration procedure due to an active emergency PDU session over 3GPP access, the UE shall initiate a registration procedure for mobility and periodic registration update procedure to indicate its capability to support NR paging subgrouping after the emergency PDU session is released over 3GPP access.

If the UE indicates support of NR paging subgrouping the UE may include its paging probability information in the Requested PEIPS assistance information IE in the REGISTRATION REQUEST message. If the UE indicates support of NR paging subgrouping and the network supports and accepts the use of the PEIPS assistance information for the UE, the network provides to the UE the Negotiated PEIPS assistance information, including the Paging subgroup ID, in the REGISTRATION ACCEPT message or the CONFIGURATION UPDATE COMMAND message. The Paging subgroup ID is used to determine the NR paging subgroup for paging the UE. The network shall store the Paging subgroup ID in the 5GMM context of the UE.

The UE shall use PEIPS assistance information only if the UE received the Negotiated PEIPS assistance information IE during the last registration procedure. If the UE did not receive the Negotiated PEIPS assistance information IE during the last registration procedure, the UE shall delete any existing PEIPS assistance information received from the network.

If the network did not accept the request to use PEIPS assistance information during the registration procedure, the network shall delete the stored PEIPS assistance information for the UE, if available.

If the UE supports the use of the PEIPS assistance information and the network supports and accepts the use of the PEIPS assistance information, the network may provide the PEIPS assistance information to the UE by including the Updated PEIPS assistance information IE in the CONFIGURATION UPDATE COMMAND message.

When an emergency PDU session is successfully established over 3GPP access after the UE received the Negotiated PEIPS assistance information IE during the last registration procedure, the UE and the AMF shall not use PEIPS assistance information until:

- the successful completion of the PDU session release procedure of the emergency PDU;

- the UE receives PEIPS assistance information during a registration procedure with PDU session status IE or upon successful completion of a service request procedure, if the UE or the network locally releases the emergency PDU session;

- the successful completion of handover of emergency PDU session to non-3GPP access; or

- the successful transfer of the emergency PDU session in 5GS to the EPS or ePDG connected to EPC.

\*\*\*\*\* End of changes \*\*\*\*\*