**3GPP TSG-CT WG1 Meeting #134-eC1-221785**

**E-meeting, 17-25 February 2022 (Revision of C1-221326)**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **24.301** | **CR** | **3698** | **rev** | **1** | **Current version:** | **17.5.0** |  |
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| *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 | **X** |

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| ***Title:***  | Collision between UE requested and NW requested modification procedure |
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| ***Source to WG:*** | OPPO |
| ***Source to TSG:*** | C1 |
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| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-2-7 |
|  |  |  |  |  |
| ***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 canbe 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)* |
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| ***Reason for change:*** | In 24.501 clause 6.3.2.6, there is the following abnormal cases at both UE and network sides:Collision of network-requested PDU session modification procedure and UE-requested PDU session modification procedure.The collision is also possible in EPS between UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure, which is missing. |
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| ***Summary of change:*** | Add the abnormal case for collision of UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure. |
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| ***Consequences if not approved:*** | No handling for collision of UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure. |
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| ***Clauses affected:*** | 6.4.3.5, 6.4.3.6, 6.5.4.5 and 6.5.4.6 |
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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 …  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR’s revision history:*** |  |

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

#### 6.4.3.5 Abnormal cases in the UE

Apart from the case described in clause 6.3.3, the following abnormal cases can be identified:

a) Collision of UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure:

 If the UE receives a MODIFY EPS BEARER CONTEXT REQUEST message during the UE requested bearer resource modification procedure, the Procedure transaction identity IE of the MODIFY EPS BEARER CONTEXT REQUEST message is set to "No procedure transaction identity assigned", and the EPS bearer indicated in the MODIFY EPS BEARER CONTEXT REQUEST message is the EPS bearer that the UE had requested to modify, the UE shall abort internally the UE requested bearer resource modification procedure, enter the state BEARER CONTEXT ACTIVE and proceed with the EPS bearer context modification procedure.

\*\*\*\*\* Second Change \*\*\*\*\*

#### 6.4.3.6 Abnormal cases on the network side

The following abnormal cases can be identified:

a) Expiry of timer T3486:

 On the first expiry of the timer T3486, the MME shall resend the MODIFY EPS BEARER CONTEXT REQUEST and shall reset and restart timer T3486. This retransmission is repeated four times, i.e. on the fifth expiry of timer T3486, the MME shall abort the procedure and enter the state BEARER CONTEXT ACTIVE.

 The MME may continue to use the previous configuration of the EPS bearer context or initiate an EPS bearer context deactivation procedure.

b) Collision of UE requested PDN disconnect procedure and EPS bearer context modification:

 When the MME receives a PDN DISCONNECT REQUEST message during an EPS bearer context modification procedure, and the EPS bearer to be modified belongs to the PDN connection the UE wants to disconnect, the MME shall terminate the EPS bearer context modification procedure locally, release any resources related to this procedure and proceed with the PDN disconnect procedure.

c) Collision of UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure:

 If the MME receives a BEARER RESOURCE MODIFICATION REQUEST message during the EPS bearer context modification procedure and the EPS bearer indicated in the BEARER RESOURCE MODIFICATION REQUEST message is the EPS bearer that the network had requested to modify, the network shall ignore the BEARER RESOURCE MODIFICATION REQUEST message received in the state BEATER CONTEXT MODIFY PENDING. The network shall proceed with the EPS bearer modification procedure as if no BEARER RESOURCE MODIFICATION REQUEST message was received from the UE.

\*\*\*\*\* Third Change \*\*\*\*\*

#### 6.5.4.5 Abnormal cases in the UE

The following abnormal cases can be identified:

a) Expiry of timer T3481:

 On the first expiry of the timer T3481, the UE shall resend the BEARER RESOURCE MODIFICATION REQUEST and shall reset and restart timer T3481. This retransmission is repeated four times, i.e. on the fifth expiry of timer T3481, the UE shall abort the procedure, release the PTI allocated for this activation and enter the state PROCEDURE TRANSACTION INACTIVE. In addition, if the UE had initiated resource release for all the traffic flows for the bearer, it shall deactivate the EPS bearer context locally without peer-to-peer signalling between the UE and the MME. In order to synchronize the EPS bearer context status with the MME, on indication of "back to E-UTRAN coverage" from the lower layers, the UE shall send a TRACKING AREA UPDATE REQUEST message that includes the EPS bearer context status IE to the MME.

b) Unknown EPS bearer context

 Upon receipt of the BEARER RESOURCE MODIFICATION REJECT message including ESM cause #43 "invalid EPS bearer identity", the UE shall deactivate the existing EPS bearer context locally without peer-to-peer signalling between the UE and the MME and shall stop the timer T3481.

c) Collision of a UE requested bearer resource modification procedure and an EPS bearer context deactivation procedure.

 When the UE receives a DEACTIVATE EPS BEARER CONTEXT REQUEST message during the bearer resource modification procedure, and the EPS bearer identity indicated in the DEACTIVATE EPS BEARER CONTEXT REQUEST message is an EPS bearer context the UE indicated in the UE requested bearer resource modification procedure, then the UE shall abort the UE requested bearer resource modification procedure and shall stop the timer T3481 and proceed with the EPS bearer context deactivation procedure.

d) Rejection of a UE requested bearer resource modification procedure when the UE has initiated the procedure to release all traffic flows for the bearer

 Upon receipt of a BEARER RESOURCE MODIFICATION REJECT message with ESM cause value #31 "request rejected, unspecified", if the UE had initiated resource release for all the traffic flows for the bearer, it shall deactivate the EPS bearer context locally without peer-to-peer signalling between the UE and the MME and shall stop the timer T3481. In order to synchronize the EPS bearer context status with the MME, the UE may send a TRACKING AREA UPDATE REQUEST message that includes the EPS bearer context status IE to the MME.

e) Collision of UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure:

 The handling of the same abnormal case as described in subclause 6.4.3.5 applies.

\*\*\*\*\* Fourth Change \*\*\*\*\*

#### 6.5.4.6 Abnormal cases on the network side

The following abnormal cases can be identified:

a) Unknown EPS bearer context

 If the EPS bearer identity provided in the EPS bearer identity for packet filter IE in the BEARER RESOURCE MODIFICATION REQUEST message indicates an EPS bearer identity value and this does not belong to any already activated EPS bearer context, the MME shall reply with a BEARER RESOURCE MODIFICATION REJECT message with ESM cause #43 "invalid EPS bearer identity".

b) BEARER RESOURCE MODIFICATION REQUEST message received for a PDN connection established for emergency bearer services:

 The MME shall reply with a BEARER RESOURCE MODIFICATION REJECT message with ESM cause #30 "request rejected by Serving GW or PDN GW".

c) Collision of UE requested bearer resource modificaiton procedure and EPS bearer context modification procedure:

 The handling of the same abnormal case as described in subclause 6.4.3.6 applies.

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