**3GPP TSG-CT WG1 Meeting #134-eC1-221556**

**E-Meeting, 17th – 25th February 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **24.501** | **CR** | **4090** | **rev** | **-** | **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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Initiate PDU session modification procedure for emergency PDU session |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | C1 |
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| ***Work item code:*** | 5GProtoc17 |  | ***Date:*** | 2022-02-10 |
|  |  |  |  |  |
| ***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:*** | Two scenarios can trigger the UE-requested PDU session modification procedure for emergency PDU session, see below:*The UE shall not perform the UE-requested PDU session modification procedure for an emergency PDU session, except for a procedure initiated according to subclause 6.4.2.1, item e) only, and for the error cases described in subclause 6.4.1.3 and subclause 6.3.2.3.*Case 1(specified in subclause 6.4.2.1 item e) is about initiating PDU session modification procedure for emergency PDU session transferred from emergency EPS bearer to indicate 5GSM capabilities and parameters to the network. Case 2 specified is about initiating PDU session modification procedure for emergency PDU session when the error cases such as #41, #42, #44, #45, #83, #84, #85 happened. For the case 2, the 5GSM cause IE is included in the PDU SESSION MODIFICATION REQUEST message. But for the case 1, no 5GSM cause IE is included. So the abnormal case below is not correct because the case 1 is not excluded.*The following abnormal cases can be identified:**a) If the PDU session is an emergency PDU session and the 5GSM cause IE is not included in the PDU SESSION MODIFICATION REQUEST message or is set to a 5GSM cause other than the 5GSM causes #41, #42, #44, #45, #83, #84, and #85, the SMF shall reject the PDU SESSION MODIFICATION REQUEST message with 5GSM cause #31 "request rejected, unspecified".*Thus, to make the specification correct, the case 1 should be excluded. |
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| ***Summary of change:*** | Romove the case that the UE can initiate PDU session modification procedure for emergency PDU session transferred from emergency EPS bearer to indicate 5GSM capabilities and parameters to the network. |
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| ***Consequences if not approved:*** | The specified abnormal case is not correct. |
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| ***Clauses affected:*** | 6.4.2.6 |
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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 \*\*\*\*\*

#### 6.4.2.6 Abnormal cases on the network side

The following abnormal cases can be identified:

a) If the PDU session is an emergency PDU session and the 5GSM cause IE is not included in the PDU SESSION MODIFICATION REQUEST message which is not triggered according to subclause 6.4.2.1, item e), or is set to a 5GSM cause other than the 5GSM causes #41, #42, #44, #45, #83, #84, and #85, the SMF shall reject the PDU SESSION MODIFICATION REQUEST message with 5GSM cause #31 "request rejected, unspecified".

b) PDU session inactive for the received PDU session identity.

 If the PDU session ID in the PDU SESSION MODIFICATION REQUEST message belongs to any PDU session in state PDU SESSION INACTIVE in the SMF, the SMF shall set the 5GSM cause IE to #43 "Invalid PDU session identity" in the PDU SESSION MODIFICATION REJECT message.

c) Collision of network-requested PDU session modification procedure and UE-requested PDU session modification procedure.

 The handling of the same abnormal case as described in subclause 6.3.2.5 applies.

d) AMF provides a "message was exempted from the DNN based congestion activated in the AMF" but the UE-requested PDU session modification procedure is not exempt from DNN based congestion control.

 If the SMF receives an exemptionInd attribute indicating "message was exempted from the DNN based congestion activated in the AMF" as specified in 3GPP TS 29.502 [20A], and the Extended protocol configuration options IE of the PDU SESSION MODIFICATION REQUEST message does not indicate 3GPP PS data off UE status, then the SMF shall set the 5GSM cause #26 "insufficient resources" in the PDU SESSION MODIFICATION REJECT message.

e) AMF provides a "message was exempted from the S-NSSAI and DNN based congestion activated in the AMF" but the UE-requested PDU session modification procedure is not exempt from S-NSSAI only based congestion control.

 If the SMF receives an exemptionInd attribute indicating "message was exempted from the S-NSSAI and DNN based congestion activated in the AMF" as specified in 3GPP TS 29.502 [20A], and the Extended protocol configuration options IE of the PDU SESSION MODIFICATION REQUEST message does not indicate 3GPP PS data off UE status, then the SMF shall set the 5GSM cause #67 "insufficient resources for specific slice and DNN" in the PDU SESSION MODIFICATION REJECT message.

f) AMF provides a "message was exempted from the S-NSSAI only based congestion activated in the AMF" but the UE-requested PDU session modification procedure is not exempt from S-NSSAI only based congestion control.

 If the SMF receives an exemptionInd attribute indicating "message was exempted from the S-NSSAI only based congestion activated in the AMF" as specified in 3GPP TS 29.502 [20A], and the Extended protocol configuration options IE of the PDU SESSION MODIFICATION REQUEST message does not indicate 3GPP PS data off UE status, then the SMF shall set the 5GSM cause #69 "insufficient resources for specific slice" in the PDU SESSION MODIFICATION REJECT message.

g) 5G access network cannot forward the message.

 If the SMF determines based on content of the n2SmInfo attribute specified in 3GPP TS 29.502 [20A] that the DL NAS TRANSPORT message carrying the PDU SESSION MODIFICATION COMMAND message was not forwarded to the UE by the 5G access network due to a cause other than handover procedure in progress, then the SMF shall reject the UE-requested PDU session modification procedure with an appropriate 5GSM cause value in the PDU SESSION MODIFICATION REJECT message.

NOTE: The use of an appropriate 5GSM cause value is implementation specific.

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