**3GPP TSG-CT WG1 Meeting #137-eC1-22xxxx**

**E-meeting, 18th -26th August 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **4491** | **rev** | **-** | **Current version:** | **17.7.1** |  |
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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 |  |

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| ***Title:*** | Handling of the MBS multicast session on local release of PDU session | | | | | | | | | |
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| ***Source to WG:*** | Huawei, HiSilicon, MediaTek Inc. | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2022-05-04 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
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| ***Reason for change:*** | | If the PDU session is locally released, there is no point in keeping the MBS multicast session and UE shall locally leave those sessions too. This is the handling when the PDU session is locally released because of the PDU session release procedure failes due to routing failure. Similar approach is needed when the PDU session is locally released due to service area restrictions too. | | | | | | | | |
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| ***Summary of change:*** | | When the PDU session release procedure failes due to service area restriction, and if the UE locally releases the PDU session, then the UE shall also locally leave the associated MBS multicast session | | | | | | | | |
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| ***Consequences if not approved:*** | | Unnecessarily keep the MBS multicast session. | | | | | | | | |
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| ***Clauses affected:*** | | 6.4.3.5 | | | | | | | | |
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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:*** | |  | | | | | | | | |

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

#### 6.4.3.5 Abnormal cases in the UE

The following abnormal cases can be identified:

a) Expiry of timer T3582.

The UE shall, on the first expiry of the timer T3582, retransmit the PDU SESSION RELEASE REQUEST message and the PDU session information which was transported together with the initial transmission of the PDU SESSION RELEASE REQUEST message and shall reset and start timer T3582. This retransmission is repeated four times, i.e. on the fifth expiry of timer T3582, the UE shall abort the procedure, release the allocated PTI, perform a local release of the PDU session, and perform the registration procedure for mobility and periodic registration update by sending a REGISTRATION REQUEST message including the PDU session status IE over each access that user plane resources have been established if the PDU session is an MA PDU session, or over the access the PDU session is associated with if the PDU session is a single access PDU session. If there is one or more MBS multicast sessions associated with the PDU session, the UE shall locally leave the associated MBS multicast sessions.

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

When the UE receives a PDU SESSION MODIFICATION COMMAND message during the UE-requested PDU session release procedure, and the PDU session indicated in PDU SESSION MODIFICATION COMMAND message is the PDU session that the UE had requested to release, the UE shall ignore the PDU SESSION MODIFICATION COMMAND message and proceed with the PDU session release procedure.

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

When the UE receives a PDU SESSION RELEASE COMMAND message with the PTI IE set to "No procedure transaction identity assigned" during the UE-requested PDU session release procedure, the PDU session indicated in the PDU SESSION RELEASE COMMAND message is the same as the PDU session that the UE requests to release:

- if the Access type IE is included in the PDU SESSION RELEASE COMMAND message and the PDU session is an MA PDU session and having user-plane resources established on the access different from the access indicated in the Access type IE in the PDU SESSION RELEASE COMMAND message, the UE shall proceed both the UE-requested PDU session release procedure and network-requested PDU session release procedure; or

- otherwise, the UE shall abort the UE-requested PDU session release procedure and shall stop the timer T3582 and proceed with the network-requested PDU session release procedure.

d) Receipt of an indication that the 5GSM message was not forwarded due to routing failure

Upon receiving an indication that the 5GSM message was not forwarded due to routing failure along with a PDU SESSION RELEASE REQUEST message with the PDU session ID IE set to the same value as the PDU session ID that was sent by the UE, the UE shall stop timer T3582, abort the procedure, release the allocated PTI, perform a local release of the PDU session, and perform the registration procedure for mobility and periodic registration update by sending a REGISTRATION REQUEST message including the PDU session status IE over each access that user plane resources have been established if the PDU session is an MA PDU session, or over the access the PDU session is associated with if the PDU session is a single access PDU session. If there is one or more MBS multicast sessions associated with the released PDU session, the UE shall locally leave the associated MBS multicast sessions.

e) PDU session release signalling restricted due to service area restriction

The UE may delay the release of the PDU session until the UE is not restricted by service area restrictions, or it may release the allocated PTI, perform a local release of the PDU session, and include the PDU session status IE over each access that user plane resources have been established if the PDU session is an MA PDU session, or over the access the PDU session is associated with if the PDU session is a single access PDU when performing the next registration procedure. If the UE performs the local release of the PDU session and there is one or more MBS multicast sessions associated with the released PDU session, the UE shall locally leave the associated MBS multicast sessions.

f) Collision of UE-requested PDU session release procedure and N1 NAS signalling connection release

The UE may immediately retransmit the PDU SESSION RELEASE REQUEST message and stop, reset and restart timer T3582, if the following conditions apply:

1) The original UE-requested PDU session release procedure was initiated over an existing N1 NAS signalling connection; and

2) the previous transmission of the PDU SESSION RELEASE REQUEST message was not initiated due to timer T3582 expiry.

g) Receipt of an indication that the 5GSM message was not forwarded due to the PLMN is not allowed to operate at the present UE location

Upon receiving an indication that the 5GSM message was not forwarded because the UE accessing via a satellite NG-RAN cell is informed that the PLMN is not allowed to operate at the present UE location along with a PDU SESSION RELEASE REQUEST message with the PDU session ID IE set to the same value as the PDU session ID that was sent by the UE, the UE shall stop timer T3582, abort the procedure and locally release the PDU session.

\* \* \* next Change \* \* \* \*

\* \* \* next Change \* \* \* \*

\* \* \* next Change \* \* \* \*

\* \* \* End of Change \* \* \* \*