**3GPP TSG-CT WG1 Meeting #125-eC1-20wxyz**

**Electronic meeting, 20-28 August 2020 Revision of C1-205126**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.008** | **CR** | **3236** | **rev** | **1** | **Current version:** | **16.5.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Updating the description of back-off timer | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17 | | | | |  | ***Date:*** | | | 2020-08-25 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to TS 24.501:  The SMF may include Back-off timer value IE in the PDU SESSION RELEASE COMMAND message.  And it’s suggested the network include the Back-off timer in the PDU SESSION RELEASE REQUEST message when the 5GSM cause is #29  (C1-205125) | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Updating the description of Back-off timer. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The current description of “CAUSE OF START “ for Back-off timer does not consider #29 received in PDU SESSION RELEASE COMMAND message,which cannot hold back the PDU SESSION ESTABLISHMENT REQUEST for the same DNN failed to pass DN authentication. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 11.2.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Modify the description to be consistent with C1-205125. | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NEXT CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 11.2.3 Timers of GPRS session management

Table 11.2c/3GPP TS 24.008: GPRS session management timers - MS side

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TIMER NUM. | TIMER VALUE | STATE | CAUSE OF START | NORMAL STOP | ON THE  1st, 2nd, 3rd, 4th EXPIRY |
| T3380 | 30s NOTE 3 | PDP- ACTIVE-PEND or MBMS ACTIVE-PENDING | ACTIVATE PDP CONTEXT REQUEST, ACTIVATE SECONDARY PDP CONTEXT REQUEST or ACTIVATE MBMS CONTEXT REQUEST sent | ACTIVATE  PDP CONTEXT ACCEPT, ACTIVATE  SECONDARY PDP CONTEXT ACCEPT or ACTIVATE MBMS CONTEXT ACCEPT received  ACTIVATE PDP CONTEXT REJECT, ACTIVATE SECONDARY PDP CONTEXT REJECT or ACTIVATE MBMS CONTEXT REJECT received | Retransmission of ACTIVATE PDP CONTEXT REQ, ACTIVATE SECONDARY PDP CONTEXT REQUEST or ACTIVATE MBMS CONTEXT REQUEST |
| T3381 | 8s NOTE 3 | PDP-MODIFY-PENDING | MODIFY PDP CONTEXT REQUEST sent | MODIFY PDP CONTEXT ACCEPT received | Retransmission of MODIFY PDP CONTEXT REQUEST |
| T3390 | 8s NOTE 3 | PDP- INACT-PEND | DEACTIVATE PDP CONTEXT REQUEST sent | DEACTIVATE PDP CONTEXT ACC received | Retransmission of DEACTIVATE PDP CONTEXT REQUEST |
| T3396 | NOTE 1 | PDP- ACT-PEND or MBMS ACTIVE-PENDING  PROCEDURE TRANSACTION PENDING (defined in 3GPP TS 24.301 [120])  PROCEDURE TRANSACTION PENDING (defined in 3GPP TS 24.501 [167]) | ACTIVATE PDP CONTEXT REJECT, ACTIVATE MBMS CONTEXT REJECT, ACTIVATE SECONDARY PDP CONTEXT REJECT, DEACTIVATE PDP CONTEXT REQUEST or modify PDP context reJECT received with SM cause #26 and with a timer value for T3396  PDN CONNECTIVITY REJECT, BEARER RESOURCE MODIFICATION REJECT, BEARER RESOURCE ALLOCATION REJECT or DEACTIVATE EPS BEARER CONTEXT REQUEST (defined in 3GPP TS 24.301 [120]) received with ESM cause #26 and with a timer value for T3396  PDU SESSION ESTABLISHMENT REJECT, PDU SESSION MODIFICATION REJECT, or PDU SESSION RELEASE COMMAND (defined in 3GPP TS 24.501 [167]) received with 5GSM cause #26 and with a timer value for T3396 | REQUEST PDP CONTEXT ACTIVATION or REQUEST SECONDARY PDP CONTEXT ACTIVATION or MODIFY PDP CONTEXT REQUEST or REQUEST MBMS CONTEXT ACTIVATION or ACTIVE DEFAULT EPS BEARER CONTEXT REQUEST or ACTIVATE DEDICATED EPS BEARER CONTEXT REQUEST or MODIFY EPS BEARER CONTEXT REQUEST or DETACH REQUEST with the detach type "re-attach required" or paging for EPS services using IMSI or paging for GPRS services using IMSI received or PDU SESSION RELEASE COMMAND or PDU SESSION MODIFICATION COMMAND or DEREGISTRATION REQUEST with the re-registration type "re-registration required". | None |
| Back-off timer | 12 min  NOTE 2 | PDP- ACT-PEND  PROCEDURE TRANSACTION PENDING (defined in 3GPP TS 24.301 [120]) | ACTIVATE PDP CONTEXT REJECT, ACTIVATE MBMS CONTEXT REJECT, ACTIVATE SECONDARY PDP CONTEXT REJECT, or modify PDP context reJECT received with SM cause value #8 "operator determined barring", #27 "missing or unknown APN", #32 "service option not supported", or #33 "requested service option not subscribed", or  received with an SM cause different from #26 "insufficient resources" and with a back-off timer value as specified in subclauses 6.1.3.1.3.3, 6.1.3.2.2.3, 6.1.3.3.3.3, and 6.1.3.8.2.3  PDN CONNECTIVITY REJECT, BEARER RESOURCE MODIFICATION REJECT or BEARER RESOURCE ALLOCATION REJECT (defined in 3GPP TS 24.301 [120]) received with ESM cause value #8 "operator determined barring", #27 "missing or unknown APN", #32 "service option not supported", or #33 "requested service option not subscribed", or received with an ESM cause different from #26 "insufficient resources" and with a back-off timer value as specified in 3GPP TS 24.301 [120]  PDU SESSION ESTABLISHMENT REJECT or PDU SESSION MODIFICATION REJECT (defined in 3GPP TS 24.501 [167]) received with 5GSM cause value #8 "operator determined barring", #27 "missing or unknown DNN", #32 "service option not supported", #33 "requested service option not subscribed" or #70 "missing or unknown DNN in a slice", or received with an 5GSM cause different from #26 "insufficient resources", #67 "insufficient resources for specific slice and DNN", or #69 "insufficient resources for specific slice" and with a back-off timer value as specified in 3GPP TS 24.501 [167]  PDU SESSION RELEASE COMMAND (defined in 3GPP TS 24.501 [167]) received with 5GSM cause value #29 " user authentication or authorization failed " and with a back-off timer value as specified in 3GPP TS 24.501 [167]. | None | None |
| NOTE 1: The value of this timer or the value of this timer unit can be provided by the network operator when:  - a request to activate a PDP context, a request to activate a MBMS context or a request to modify a PDP context is rejected by the network with a certain SM cause;  - a request to deactivate a PDP context is received with a certain SM cause value;  - a request to establish a PDN connection, a request to allocate bearer resources or a request to modify bearer resources (defined in 3GPP TS 24.301 [120]) is rejected by the network with a certain ESM cause;  - a request to deactivate a EPS bearer context is received with a certain ESM cause value;  - a request to establish a PDU session or a request to modify a PDU session (defined in 3GPP TS 24.501 [167]) is rejected by the network:  1) with a certain 5GSM cause; or  2) indication that the 5GSM message was not forwarded due to DNN based congestion control; or  - a command to release a PDU session is received with a certain 5GSM cause value.  If the timer unit is not set to indicate that the timer is deactivated, the value of the timer when included with SM cause, ESM cause, 5GSM cause #26, or due to DNN based congestion control is zero or the timer value is taken randomly from an operator dependent range not greater than 70 hours. If the PDN CONNECTIVITY REJECT was sent together with an ATTACH REJECT message and the ATTACH REJECT message was not integrity protected, MS uses a random value from a default range of 10mins to 30mins.  NOTE 2: The default value of 12 minutes applies only for certain SM, ESM and 5GSM cause values as specified in subclauses 6.1.3.1.3.3, 6.1.3.2.2.3, and 6.1.3.3.3.3 in 3GPP TS 24.301 [120] and 3GPP TS 24.501 [167].  NOTE 3: If the MS is using EC-GSM-IoT, the timer value shall be calculated as described in subclause 4.7.2.12. | | | | | |

NOTE 1: Typically, the procedures are aborted on the fifth expiry of the relevant timer. Exceptions are described in the corresponding procedure description.

NOTE 2: The back-off timer is used to describe a logical model of the required MS behaviour. This model does not imply any specific implementation, e.g. as a timer or timestamp.

NOTE 3: Reference to back-off timer in this section can either refer to use of timer T3396 or to use of a different packet system specific timer within the MS. Whether the MS uses T3396 as a back-off timer or it uses different packet system specific timers as back-off timers is left up to MS implementation.

Table 11.2d/3GPP TS 24.008: GPRS session management timers - network side

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TIMER NUM. | TIMER VALUE | STATE | CAUSE OF START | NORMAL STOP | ON THE  1st, 2nd, 3rd, 4th EXPIRY |
| T3385 | 8s NOTE 1 | PDP- ACT-PEND or MBMS ACTIVE-PENDING | REQUEST PDP CONTEXT ACTIVATION or  REQUEST SECONDARY PDP CONTEXT ACTIVATION or REQUEST MBMS CONTEXT ACTIVATION sent | ACTIVATE PDP CONTEXT REQUEST or ACTIVATE SECONDARY PDP CONTEXT REQUEST or ACTIVATE MBMS CONTEXT REQUEST received | Retransmission of REQUEST PDP CONTEXT ACTIVATION or REQUEST SECONDARY PDP CONTEXT ACTIVATION or REQUEST MBMS CONTEXT ACTIVATION |
| T3386 | 8s NOTE 1 | PDP- MOD-PEND | MODIFY PDP CONTEXT REQUEST sent | MODIFY PDP CONTEXT ACC received | Retransmission of MODIFY PDP CONTEXT REQ |
| T3395 | 8s NOTE 1 | PDP- INACT-PEND or MBMS INACTIVE-PENDING | DEACTIVATE PDP CONTEXT REQUEST sent | DEACTIVATE PDP CONTEXT ACC received | Retransmission of DEACTIVATE PDP CONTEXT REQ |
| NOTE 1: If the SGSN supports EC-GSM-IoT and if the MS is using EC-GSM-IoT, the timer value shall be calculated as described in subclause 4.7.2.12. | | | | | |

NOTE 4: Typically, the procedures are aborted on the fifth expiry of the relevant timer. Exceptions are described in the corresponding procedure description.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END of CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*