**3GPP TSG RAN4 Meeting #116bis R4-2514340
Prague, Czech Republic, 13th – 18th October, 2025**

|  |
| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** |  | **Current version:** | 19.2.0 |  |
|  |
| *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:***  | DraftCR to TS 36.133 on conditional HARQ-ACK feedback for CB-Msg3 Requirements |
|  |  |
| ***Source to WG:*** | Nokia |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | IOT\_NTN\_PH3 |  | ***Date:*** | 2025-10-03 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-19 |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | In the feature design, it is optional for the network to implement the HARQ-ACK resource in the MSG4 that responds to a CB-MSG3. Therefore, the UE ACK transmission shall be dependent on such configuration.  |
|  |  |
| ***Summary of change:*** | Fix the HARQ-ACK requirement in CB-MSG3 functionality  |
| ***T*** |  |
| ***Consequences if not approved:*** | Specification will be incosistent with TS 36.331  |
|  |  |
| ***Clauses affected:*** | 6.2.4A, 6.6A4 |
|  |  |
|  | **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:*** |  |

***<Start of change 1>***

### 6.2.4A Random Access Requirements for Cat-M1 UEs with CB-Msg3 EDT for Satellite Access

The requirement in this clause applies for Cat-M1 CE Mode A UE for satellite access when CB-Msg3-EDT is configured by *CB-Msg3-ConfigSIB-r19* and the UE supports CB-Msg3-EDT Capability. The UE in IDLE mode is allowed to initiate a contention-based PUSCH transmission.

The UE shall have the capability to calculate the transmission power for the initial CB-Msg3 transmission and the subsequent CB-Msg3 replica transmissions according to the formula defined in TS 36.213.

#### 6.2.4A.1 Correct behaviour when transmitting CB-Msg3

UE shall also execute the CB-Msg3-EDT procedure defined in clause 5.1x in TS 36.321 [17] using the PUSCH configuration contained in *CB-Msg3-ConfigSIB-r19* in TS 36.331 [2]. The UE shall transmit CB-Msg3 replicas within the CB-Msg3 window, according to network configuration.

#### 6.2.4A.2 Correct behaviour when receiving CB-Msg4

If the CB-Msg4 contains a backoff indicator, the UE shall set the backoff time, according to the CB-Msg3-EDT backoff parameters as described in TS 36.321 [17].

If the CB-Msg4 contains a UE contention resolution identity, the UE shall send HARQ-ACK if the Contention Resolution is successful and if HARQ-ACK resource is provided.

#### 6.2.4A.3 Correct behaviour when not receiving CB-Msg4

that when the backoff expires the next

**<End of Change1>**

***<Start of change 2>***

### 6.6A.4 Requirements for CB-Msg3-EDT procedure

The requirement in this clause applies for for UE category NB-IoT for satellite access when CB-Msg3-EDT is configured by *CB-Msg3-ConfigSIB-NB-r19* and the UE supports CB-Msg3-EDT Capability. The UE in IDLE mode is allowed to initiate a contention-based NPUSCH transmission.

The UE shall have the capability to calculate the transmission power for the initial CB-Msg3 transmission and the subsequent CB-Msg3 replica transmissions according to the formula defined in TS 36.213.

#### 6.6A.4.1 Correct behaviour when transmitting CB-Msg3

UE shall also execute the CB-Msg3-EDT procedure defined in clause 5.1x in TS 36.321 [17] using the NPUSCH configuration contained in *CB-Msg3-ConfigSIB-NB-r19* in TS 36.331 [2].The UE shall transmit CB-Msg3 replicas within the CB-Msg3 window, according to network configuration.

#### 6.6A.4.2 Correct behaviour when receiving a CB-Msg4 over CB-RNTI

If the CB-Msg4 contains a backoff indicator, the UE shall set the the backoff time, according to the CB-Msg3-EDT backoff parameters as described in TS 36.321 [17] .

If the CB-Msg4 contains a UE contention resolution identity, the UE shall send HARQ-ACK if the Contention Resolution is successful and if the HARQ-ACK resource is provided.

#### 6.6A.4.3 Correct behaviour when detecting CB-Msg3-EDT failure

If the *Msg3ResponseTimer* expires, the maximum attempt number of CB-Msg3 transmissions is not achieved, and the UE has not received a PDCCH message that includes a UE Contention Resolution Identity MAC control element that matches the CCCH SDU transmitted in the uplink message, the UE shall re-attempt a CB-Msg3 transmission when the backoff expires in the next CB-Msg3 window with the calculated PUSCH transmission power.**<End of Change2>**