**3GPP TSG-RAN WG2 Meeting #116e *R2-21xxxxx***

**e-Meeting, 1th - 12th November 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **xxxx** | **rev** |  **-** | **Current version:** | **.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)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network | **x** | Core Network |  |

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| ***Title:***  | Clarification on Duplication MAC CE |
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| ***Source to WG:*** | Samsung |
| ***Source to TSG:*** | RAN2 |
|  |  |
| ***Work item code:*** | NR\_IIOT-Core |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** |  |
|  | *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 RAN2#109bis-e, RAN2 agreed the following:* Rel-15 Duplication MAC CE is *not* used for Rel-16 Duplication configuration (with more than two RLC entities configured).

However, the above agreement has not been captured clearly in the specification and thus it may cause misunderstanding, i.e. from implementation perspective, UE with one DRB configured with more than two RLC entities may consider the corresponding behaviour when Rel-15 Duplication MAC CE is received because it is not clarified in the stage-3 specification (i.e. 38.321) and it looks confused in stage-2 specification (i.e. 38.300).  |
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| ***Summary of change:*** | To add a NOTE “The Duplication Activation/Deactivation MAC CE is not used if a DRB is configured with more than two RLC entities.” to subclause 6.1.3.11 to clarify the usage of Rel-15 Duplication Activation/Deactivation MAC CE.This NOTE is applicable for UE level not for DRB level, especially for the case when UE is configured with one DRB with more than 2 RLC entities and one DRB with only 2 RLC entities.**Impact analysis**Impacted functionality: PDCP Duplication (Duplication Activation/Deactivation MAC CE)Inter-operability: - If the network is implemented according to the CR while the UE is not, no interoperability issues would be foreseen.- If the UE is implemented according to the CR while the network is not, UE with one DRB configured with more than two RLC entities may declare an error when Rel-15 Duplication MAC CE is received. |
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| ***Consequences if not approved:*** | It is not clear whether Rel-15 Duplication MAC CE is received to UE with one DRB configured with more than two RLC entities, which may cause an error. |
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| ***Clauses affected:*** | 6.1.3.11 |
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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:*** |  |

*<Start of modification>*

#### 6.1.3.11 Duplication Activation/Deactivation MAC CE

The Duplication Activation/Deactivation MAC CE of one octet is identified by a MAC subheader with LCID as specified in Table 6.2.1-1. It has a fixed size and consists of a single octet containing eight D-fields. The Duplication Activation/Deactivation MAC CE is defined, for a MAC entity, as follows (Figure 6.1.3.11-1).

- Di: This field indicates the activation/deactivation status of the PDCP duplication of DRB i where i is the ascending order of the DRB ID among the DRBs configured with PDCP duplication and with RLC entity(ies) associated with this MAC entity. The Di field is set to 1 to indicate that the PDCP duplication of DRB i shall be activated. The Di field is set to 0 to indicate that the PDCP duplication of DRB i shall be deactivated.



Figure 6.1.3.11-1: Duplication Activation/Deactivation MAC CE

NOTE: The Duplication Activation/Deactivation MAC CE is not used if a DRB is configured with more than two RLC entities.

*<End of modification>*