**3GPP TSG-RAN2 Meeting #109bis\_e *R2-200xxxx (was R2-2002571)***

**Electronic, April 20 – 30, 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
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|  | **38.306** | **CR** | **0262** | **rev** | **1** | **Current version:** | **15.9.0** |  |
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| *For* [***HELP***](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:***  | Corrections on the number of DRBs |
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| ***Source to WG:*** | Qualcomm Incorporated |
| ***Source to TSG:*** | R2 |
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| ***Work item code:*** | NR\_newRAT-Core |  | ***Date:*** | 2020-04-29 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-15 |
|  | *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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | 1.The following note in section 8 regarding the minimum requirement for the number of DRBs that a UE shall support is not entirely clear.* NOTE: 8 per MAC entity with duplication.

There is not direct mapping between DRBs and MAC entities. The essential factor here is whether a DRB has RLC entity(ies) associated with a MAC entity or not.It is our understanding that the note was meant to indicate the following two restrictions.1. The number of RLC bearers the UE shall support in case of duplication.
2. The Duplication Activation/Deactivation MAC-CE has a single octet field to point to duplication DRBs associated with the MAC entity.

2.It is not clear in which 5G architecture options the minimum requirement for the number of DRBs applies, due to various DRB termination options involving multiple Cell Groups and RATs. |
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| ***Summary of change:*** | 1.* It is clarified that the number of RLC bearers the UE shall support is 16.
* It is clarified that the maximum number of DRBs configured with PDCP duplication and with RLC entity(ies) associated with a MAC entity is 8.

2.It is clarified that the requirement for the number of DRBs in this specification is applicable in NR SA, NR-DC and NE-DC.**Impact Analysis**:Impacted 5G architecture options:NR SA, NR-DC, NE-DCImpacted functionality:The minimum UE requirement for the number of DRBs.Inter-operability:* If the network is implemented according to the CR and the UE is not; The network may configure DRBs exceeding the UE capability. The UE may consider the configuration invalid.
* If the UE is implemented according to the CR and the network is not; The network may configure DRBs exceeding the UE capability. The UE may consider the configuration invalid.
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| ***Consequences if not approved:*** | The network may configure DRBs exceeding the UE capability. The UE may consider the configuration invalid. |
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| ***Clauses affected:*** | 8 |
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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:*** |  |
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| ***This CR's revision history:*** |  |

# 8 UE Capability Constraints

The following table lists constraints indicating the UE capabilities that the UE shall support.

| Parameter | Description | Value |
| --- | --- | --- |
| #DRBs | The number of DRBs that a UE shall support. | 16 per UE.NOTE1, NOTE2 |
| #RLC bearers | The number of RLC bearers associated with DBRs that a UE shall support. | 16 per UE.NOTE2 |
| #minCellperMeasObjectNR | The minimum number of neighbour cells (excluding black list cells) that a UE shall be able to store associated with a MeasObjectNR. | 32 |
| #minBlackCellRangesperMeasObjectNR | The minimum number of blacklist cell PCI ranges that a UE shall be able to store associated with a MeasObjectNR. | 8 |
| #minCellperMeasObjectEUTRA | The minimum number of neighbour cells that a UE shall be able to store associated with a MeasObjectEUTRA. | 32 |
| #minCellTotal | The minimum number of neighbour cells (excluding black list cells) that UE shall be able to store in total from all measurement objects configured. | 256 with counting CSI-RS and SSB as 2. |
| #cell for CGI reporting  | the limit regarding the cells NR can configure includes the cell for which the UE is requested to report CGI. | (# minCellperMeasObjectRAT - 1), where RAT represents NR and EUTRA. |
| #maxDeprioritisationFreq | The UE shall be able to store a depriotisation request for up to 8 frequencies (applicable when receiving another frequency specific deprioritisation request via *RRCRelease* before T325 expiry). | 8 |
| NOTE 1: The maximum number of DRBs configured with PDCP duplication and with RLC entity(ies) associated with a MAC entity is 8. |
| NOTE 2: This requirement is applicable in NR SA, NR-DC and NE-DC. |