**3GPP TSG-RAN2 Meeting #109bis-e *R2-200xxxx***

**E-Meeting, 20 April – 30 April 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.331** | **CR** | NUM | **rev** |  | **Current version:** | **16.0.0** |  |
|  | | | | | | | | |
| *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:*** | UE measurement capability requirements for NR | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Google Inc. | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core | | | | |  | ***Date:*** | | | 2020-04-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | UE measurement capability requirements for NR is missing | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add UE measurement capability requirements for the minimum number of blacklist cells that the UE shall be able to store within a MeasObjectNR  **Impact analysis**  Impacted 5G architecture options:  NR SA, EN-DC, NGEN-DC  Impacted functionality:  NR measurement  Inter-operability:  If one of the UE and the network is implemented according to the CR but the other is not, thre is no inter-operability issue. However, the minimum number of blacklist cells that a UE can store within a MeasObjectNR is unknown. The number of blacklist cells that the UE stores may be less than the network expects. | | | | | | | | |
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| ***Consequences if not approved:*** | | UE measurement capability requirements for NR is missing. | | | | | | | | |
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| ***Clauses affected:*** | | 11.1 | | | | | | | | |
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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:*** | | Shadow CR of Rel-15 CR in R2-200xxxx | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

# 11 UE capability related constraints and performance requirements

## 11.1 UE capability related constraints

The following table lists constraints regarding the UE capabilities that E-UTRAN is assumed to take into account.

| Parameter | Description | Value | NB-IoT |
| --- | --- | --- | --- |
| #DRBs | The number of DRBs that a UE shall support | 8, 15 | (0, 1, 2)  NOTE1 |
| #RLC-AM | The number of RLC AM entities that a UE shall support | 10, 17 | (2, 3)  NOTE1 |
| #minCellperMeasObjectEUTRA | The minimum number of neighbour cells (excluding black list cells) that a UE shall be able to store within a MeasObjectEUTRA. NOTE. | 32 | N/A |
| #minBlackCellRangesperMeasObjectEUTRA | The minimum number of blacklist cell PCI ranges that a UE shall be able to store within a MeasObjectEUTRA | 32 | N/A |
| #minCellperMeasObjectUTRA | The minimum number of neighbour cells that a UE shall be able to store within a MeasObjectUTRA. NOTE. | 32 | N/A |
| #minCellperMeasObjectGERAN | The minimum number of neighbour cells that a UE shall be able to store within a measObjectGERAN. NOTE. | 32 | N/A |
| #minCellperMeasObjectCDMA2000 | The minimum number of neighbour cells that a UE shall be able to store within a measObjectCDMA2000. NOTE. | 32 | N/A |
| #minBlackCellperMeasObjectNR | The minimum number of blacklist cells that a UE shall be able to store within a MeasObjectNR | 32 | N/A |
| #minCellTotal | The minimum number of neighbour cells (excluding black list cells) that UE shall be able to store in total in all measurement objects configured | 256 | N/A |
| NOTE: In case of CGI reporting, the limit regarding the cells E-UTRAN can configure includes the cell for which the UE is requested to report CGI i.e. the amount of neighbour cells that can be included is at most (# minCellperMeasObjectRAT - 1), where RAT represents EUTRA/UTRA/GERAN/CDMA2000 respectively. | | | |
| NOTE1: #DRBs based on UE capability, #RLC-AM =#DRBs + 2. | | | |