**3GPP TSG-RAN WG2 Meeting #124 R2-2313731**

**Chicago, USA, November 13-17, 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **36.306** | **CR** | **1873** | **rev** | **1** | **Current version:** | **17.4.0** |  |
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| *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:*** | Introduction of UE capability for inter-RAT NR FR2 measurements without measurement gap | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MG\_enh-Core | | | | |  | ***Date:*** | | | 2023-11-16 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | RAN2 in their #123bis meeting agreed to introduce a new UE capability parameter for inter-RAT NR FR2 measurements without gap.  This is an addition to the existing UE capability, *independentGapConfig-maxCC-r17*, defined in TS38.306. The corresponding requirement is defined in the context of per-FR measurement gap in TS38.133. | | | | | | | | |
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| ***Summary of change:*** | | UE capability parameter gaplessMeas-FR2-maxCC-r17, where the UE indicates the maximum number of configured E-UTRA serving cells with which the UE supports inter-RAT NR FR2 measurements without measurement gap, is added.   * This UE capability parameter is applicable when only E-UTRA serving cells are configured, i.e. LTE standalone. * The UE reporting this capability and supporting (NG)EN-DC shall not indicate support of *independentGapConfig* in *MeasAndMobParametersMRDC* (defined in TS 38.306 [87]).   **Impact analysis**  Impacted 5G architecture options:  LTE SA  Impacted functionality:  Inter-RAT NR FR2 measurements without measurement gap  Inter-operability:   * If the network is implemented according to the CR and the UE is not; No inter-operability issue arises. The network is aware that the UE does not support the inter-RAT NR FR2 measurements without measurement gap ((unless other UE capability parameter the network is aware of indicates the UE supports gapless measurement, e.g. *independentGapConfig* defined in TS38.306) * If the UE is implemented according to the CR and the network is not; No inter-operability issue arises. The network will configure measurement gap for inter-RAT NR FR2 measurements (unless other UE capability parameter the network is aware of indicates the UE supports gapless measurement, e.g. *independentGapConfig* defined in TS38.306) | | | | | | | | |
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| ***Consequences if not approved:*** | | The UE has no way to convery its capability of inter-RAT NR FR2 measurements without measurement gap depending on the number of configured E-UTRA serving cells. | | | | | | | | |
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| ***Clauses affected:*** | | 4.3.6.5x (new) | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS36.331 CR4968  TS38.306 CR0989 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### 4.3.6 Measurement parameters

[…]

4.3.6.5x *gaplessMeas-FR2-maxCC-r17*

This field defines whether the UE supports inter-RAT NR FR2 measurement without measurement gap as specified in clause 9.1.2 of TS 38.133 [84] while the number of configured serving cells is less than or equal to the indicated number. This field is applicable when only E-UTRA serving cells are configured. The UE reporting this field and supporting (NG)EN-DC shall not indicate support of *independentGapConfig* in *MeasAndMobParametersMRDC* (defined in TS 38.306 [32]).