**3GPP TSG-RAN WG4 Meeting #112 R4-2411430**

**Maastricht, Netherlands, August 19 – 23, 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
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|  |  | **CR** | 4669 | **rev** |  | **Current version:** |  |  |
|  |
| *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 |  | Core Network |  |

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| ***Title:***  | CR for R18 gap core requirements maintenance |
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| ***Source to WG:*** | Apple |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_MG\_enh2-Core |  | ***Date:*** | 2024-07-01 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-18 |
|  | *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)* |
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| ***Reason for change:*** | According to the following agreement in RAN4#111 (R4-2410130), measurement type of SCC may change between intra-frequency measurement with NCSG and intra-frequency without gap.**Issue 3-2-1: [Case 2] When the UE is configured with Concurrent gaps with NCSG, what is the potential changes to UE behaviour for NCSG upon SCell activation (in Rel-18)**Agreement from online session:* For UE configured with one NCSG and one Type 1/2 MG: All deactivated SCells are measured within NCSG, regardless of the reported UE capabilities [and gap association].
	+ Further details on the processing delay between NCSG and Type 1/2 MG can be further discussed.
* For UE configured with 2 NCSG, deactivated SCells are measured with NCSG
	+ If the association is provided, deactivated SCells are measured with NCSG according to gap association.
	+ If the association is not provided, UE is not expected to cause interruption outside the VIL due to measurement on any of the deactivated SCells, and the existing measurement delay requirement does not apply to this case.

Some spec change is needed on the measurement type transition upon SCell deactivation. Similar to other minimum requirements at transition, longer delay before and after the event shall apply. |
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| ***Summary of change:*** | Introduce minimum requirements at transition of measurement type between NCSG and outside gap. |
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| ***Consequences if not approved:*** | Corresponding requirements would still be missing. |
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| ***Clauses affected:*** | 9.1.6 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **X** |  |  Test specifications | TS 38.533 |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

**<< START OF CHANGES >>**

### 9.1.6 Minimum requirement at transitions

When the measurement on one intra-frequency measurement object transitions from measurements performed outside gaps to measurements performed within gaps or vice versa during one measurement period, the cell identification and measurement period requirements with the longer delay apply.

When the measurement on one intra-frequency measurement object transitions from measurements performed within gaps to measurements performed within NCSG or vice versa during one measurement period, the cell identification and measurement period requirements with the longer delay apply.

The carrier-specific scaling factor specified in clause 9.1.5 that applies to the other impacted measurement objects will also apply based on the longer measurement or cell identification delay before or after the transition.

When the UE transitions between DRX and non-DRX or when DRX cycle periodicity changes, the cell identification and measurement period requirements apply based on the longer delay before or after the transition.

Subsequent to this measurement period, the cell identification and measurement period requirements on each measurement object are corresponding to the second mode after transition.

**<< END OF CHANGES >>**