**3GPP TSG-RAN WG1 Meeting #104-e R1-2101272**

**E-meeting, January 25 – February 5, 2021**

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| *CR-Form-v12.1* |
| **[DRAFT] CHANGE REQUEST** |
|  |
|  | **38.213** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **16.4.0** |  |
|  |
| *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:***  | Corrections on Scell BFR in Rel-16 |
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| ***Source to WG:*** | Moderator (Apple), Huawei, HiSilicon |
| ***Source to TSG:*** | R1 |
|  |  |
| ***Work item code:*** | NR\_newRAT-Core |  | ***Date:*** | 2021-01-25 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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 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:*** | The current spec says that the UE should transmit PUCCH using a spatial domain filter as the one corresponding to qnew after SCell BFR. Such UE behavior can be performed only when qnew has been succefully identified. For this reason, an operating condition of ‘if any’ was added to PDCCH monitoring part, but is currently missing for PUCCH transmssion part.  |
| ***T*** |  |
| ***Summary of change:*** | Add qnew has been identified as the operating condition for UE to transmit PUCCH using a spatial domain filter as the one corresponding to qnew after SCell BFR. |
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| ***Consequences if not approved:*** | Inconsistent specifications.  |
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| ***Clauses affected:*** | 6 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **X** |  Test specifications |  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
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| ***Other comments:*** | Isolated impact analysis:* No impact to existing gNB and UE implementation.
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| ***This CR's revision history:*** |  |

# 6 Link recovery procedures

#### < Unchanged parts are omitted >

A UE can be provided, by *schedulingRequestID-BFR-SCell*, a configuration for PUCCH transmission with a link recovery request (LRR) as described in Clause 9.2.4. The UE can transmit in a first PUSCH MAC CE providing index(es) for at least corresponding SCell(s) with radio link quality worse than Qout,LR, indication(s) of presence of $q\_{new}$ for corresponding SCell(s), and index(es) $q\_{new}$ for a periodic CSI-RS configuration or for a SS/PBCH block provided by higher layers, as described in [11, TS 38.321], if any, for corresponding SCell(s). After 28 symbols from a last symbol of a PDCCH reception with a DCI format scheduling a PUSCH transmission with a same HARQ process number as for the transmission of the first PUSCH and having a toggled NDI field value, the UE

- monitors PDCCH in all CORESETs on the SCell(s) indicated by the MAC CE using the same antenna port quasi co-location parameters as the ones associated with the corresponding index(es) $q\_{new}$, if any

- transmits PUCCH on a PUCCH-SCell using a same spatial domain filter as the one corresponding to $q\_{new}$ ,if any, for periodic CSI-RS or SS/PBCH block reception, as described in Clause 9.2.2, and using a power determined as described in Clause 7.2.1 with $q\_{u}=0$, $q\_{d}=q\_{new}$, and $l=0$, if

- the UE is provided *PUCCH-SpatialRelationInfo* for the PUCCH,

- a PUCCH with the LRR was either not transmitted or was transmitted on the PCell or the PSCell, and

- the PUCCH-SCell is included in the SCell(s) indicated by the MAC-CE

where the SCS configuration for the 28 symbols is the smallest of the SCS configurations of the active DL BWP for the PDCCH reception and of the active DL BWP(s) of the at least one SCell.

#### < Unchanged parts are omitted >