**3GPP TSG-RAN WG1 Meeting #117R1-2405715**

Fukuoka City, Fukuoka, Japan, May 20th – 24th, 2024

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.213** | **CR** | **0645** | **rev** | **-** | **Current version:** | **18.2.0** |  |
|  | | | | | | | | |
| *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:*** | Correction on TCI state applied for CORESETs other than CORESET 0 in LTM | | | | | | | | | |
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| ***Source to WG:*** | Moderator (Fujitsu), Nokia, Ericsson, Google, Huawei, HiSilicon, Langbo, Lenovo, New H3C, Samsung, ZTE | | | | | | | | | |
| ***Source to TSG:*** | R1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_mob\_enh2-Core | | | | |  | ***Date:*** | | | 2024-05-23 |
|  |  | | | |  | |  | | |  |
| ***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 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) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In RAN1#116-bis, changes were made in section 10.1 related to the UE assumption on the TCI state to be used for CORESET 0 after the execution of LTM cell switch. However, the similar changes are missing  for CORESETs other the CORESET 0, i.e., under some circumstances, the UE may use the SS/PBCH block identified during the intial access procedure which should not be true after the execution of an LTM cell switch command – if there is a TCI state provided in the cell switch command, the UE should use the provided TCI state. | | | | | | | | |
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| ***Summary of change:*** | | Describe in section 10.1 that the UE should use the TCI state in the LTM Cell Switch Command MAC CE as a fall back option for CORESETs other the CORESET 0 for both RACH-less or RACH-based LTM. | | | | | | | | |
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| ***Consequences if not approved:*** | | Conflicting specification of QCL assumptions for CORESETs other than the CORESET 0. | | | | | | | | |
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| ***Clauses affected:*** | | 10.1 | | | | | | | | |
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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 ... | | |
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| ***Other comments:*** | | **Isolated Impact Analysis:**  This CR has no isolated impact on network and UE behavior. | | | | | | | | |
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| ***This CR's revision history:*** | | This is the first version of this draft CR | | | | | | | | |

10.1 UE procedure for determining physical downlink control channel assignment

<unchanged part omitted>

For a CORESET other than a CORESET with index 0,

* if a UE has not been provided a configuration of TCI state(s) by *tci-StatesPDCCH-ToAddList* and *tci-StatesPDCCH-ToReleaseList* for the CORESET, or has been provided initial configuration of more than one TCI states for the CORESET by *tci-StatesPDCCH-ToAddList* and *tci-StatesPDCCH-ToReleaseList* and has not received a MAC CE activation command for one of the TCI states as described in [11, TS 38.321], the UE assumes that the DM-RS antenna port associated with PDCCH receptions is quasi co-located with
  + the one or more DL RS configured by a TCI state provided by *CandidateTCI-State*, where the TCI state is indicated by an LTM Cell Switch Command MAC CE except during RACH procedure for the RACH-based LTM if applicable, otherwise,
  + the SS/PBCH block the UE identified during the initial access procedure, or for a most recent configured grant PUSCH transmission as described in clause 19 for a same HARQ process;
* if a UE has been provided a configuration of more than one TCI states by *tci-StatesPDCCH-ToAddList* and *tci-StatesPDCCH-ToReleaseList* for the CORESET as part of Reconfiguration with sync procedure as described in [12, TS 38.331] and has not received a MAC CE activation command for one of the TCI states as described in [11, TS 38.321], the UE assumes that the DM-RS antenna port associated with PDCCH receptions is quasi co-located with the SS/PBCH block or the CSI-RS resource the UE identified during the random access procedure initiated by the Reconfiguration with sync procedure as described in [12, TS 38.331].

<unchanged part omitted>