**3GPP TSG RAN WG1 #116bis R1-24xxxxx**

**Changsha, Hunan Province, China, April 15th – 19th, 2024**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.213** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **18.2.0** |  |
|  |
| *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:***  | Correction on RACH procedure triggered by LTM cell switch for 38.213 |
|  |  |
| ***Source to WG:*** | Moderator (Fujitsu), Google, ZTE, Nokia, Ericsson, Huawei, HiSilicon, vivo, Lenovo |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | NR\_Mob\_enh2 |  | ***Date:*** | 2024-04-17 |
|  |  |  |  |  |
| ***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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | The current specification describes the procedure for a PDCCH ordered RACH procedure. For RACH-based LTM, an LTM cell switch command MAC CE can also trigger a RACH procedure in a similar way, and this should be described in 38.213 |
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| ***Summary of change:*** | Add that an LTM cell switch command can also trigger a RACH procedure. |
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| ***Consequences if not approved:*** | Missing specification text for RACH-based LTM |
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| ***Clauses affected:*** | 8.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **N** |  Other core specifications  |  |
| ***affected:*** |  | **N** |  Test specifications |  |
| ***(show related CRs)*** |  | **N** |  O&M Specifications |  |
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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 |

8.1 Random access preamble

Physical random access procedure for a UE is triggered upon request of a PRACH transmission by higher layers or by a PDCCH order or LTM Cell Switch Command MAC CE in clause 6.1.3.75 [11, TS 38.321] for a cell. A configuration by higher layers for a PRACH transmission includes the following:

- A configuration for PRACH transmission on the cell [4, TS 38.211].

- A preamble index, a preamble SCS, $P\_{PRACH,target}$, a corresponding RA-RNTI when applicable [11, TS 38.321], and a PRACH resource for the cell.

- A number of $N\_{preamble}^{rep}>1$ preamble repetitions for the PRACH transmission if the UE would transmit the PRACH with repetitions.

<Unchanged part is omitted>

For a PRACH transmission by a UE triggered by a PDCCH order or an LTM cell switch command MAC CE, the PRACH mask index field, if the value of the random access preamble index field is not zero, indicates the PRACH occasion for the PRACH transmission where the PRACH occasions are associated with the SS/PBCH block index indicated by the SS/PBCH block index field of the PDCCH order or the LTM cell switch command MAC CE and, if any, a cell indicator field indicates a cell for the PRACH transmission [5, TS 38.212]. If the UE is provided $K\_{cell,offset}$ by *cellSpecificKoffset*, the PRACH occasion is after slot $n+2^{μ}∙K\_{cell,offset}$ where $n$ is the slot of the UL BWP for the PRACH transmission that overlaps with the end of the PDCCH order reception assuming $T\_{TA}=0$, and $μ$ is the SCS configuration for the PRACH transmission. If the PDCCH reception for the PDCCH order includes two PDCCH candidates from two linked search space sets based on *searchSpaceLinkingId*, as described in clause 10.1, the last symbol of the PDCCH reception is the last symbol of the PDCCH candidate that ends later. The PDCCH reception includes the two PDCCH candidates also when the UE is not required to monitor one of the two PDCCH candidates as described in clauses 10 (except clause 10.4), 11.1, 11.1.1 and 17.2.

<Unchanged part is omitted>