**3GPP TSG-RAN WG2 Meeting #116-bis-e *R2-220xxxx***

**Electronic meeting, 17th - 25th January 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.822** | **CR** | **-** | **rev** | **-** | **Current version:** | **16.2.0** |  |
|  |
| *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:***  | Running CR to 38.822 for MUSIM UE Capabilities |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | LTE\_NR\_MUSIM-Core |  | ***Date:*** | 2022-01-28 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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)* |
|  |  |
| ***Reason for change:*** | Feature addition for MUSIM devices support |
|  |  |
| ***Summary of change:*** | Add new section to define UE capabilities for MUSIM devices |
|  |  |
| ***Consequences if not approved:*** | No UE capabilities for MUSIM are defined |
|  |  |
| ***Clauses affected:*** | 5.2.X LTE\_NR\_MUSIM-Core |
|  |  |
|  | **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 ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

START OF CHANGE

### 5.2.X LTE\_NR\_MUSIM-Core

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| Features | Index | Feature group | Components | Prerequisite feature groups | Field name in TS 38.331 [2] | Parent IE in TS 38.331 [2] | Need of FDD/TDD differentiation | Need of FR1/FR2 differentiation | Note | Mandatory/Optional |
| X. LTE\_NR\_MUSIM-Core | X-1 | MUSIM NW Switching- MUSIM Gap request  | Indicates whether the UE supports providing MUSIM assistance information with MUSIM gap request as defined in TS 38.331. |  | *musimGapRequest-r17* | *UE-NR-Capability-v17xy* | No | No |  | Optional with capability signalling |
|  | X-2 | MUSIM NW Switching-leaving RRC\_CONNECTED state | Indicates whether the UE supports providing MUSIM assistance information with indication of leaving RRC\_CONNECTED state as defined in TS 38.331. |  | *musimLeaveConnected-r17* | *UE-NR-Capability-v17xy* | No | No |  | Optional with capability signalling |

END OF CHANGE

## Annex: RAN2 Agreements (LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: RP-202895)

## RAN2#116-bis-e

* 1: Two capability bits are introduced, one for support gaps and another for “leaving connected”. There is no need for different capability bits for periodic and aperiodic gaps.
* 2: Confirm that the MUSIM related capability is per UE (without FRx and xDD differentiation).

## RAN2#116-e

* 1 AS capability for paging collision avoidance is not needed (for any cases).
* 2 There is no need for AS capability for Busy indication.
* 6 There is no need for AS capability for Paging cause value.
* Can discuss UE capabilities for periodic/aperiodic gap request and RRC processing delay requirements for MUSIM in Rel-17 further in the next RAN2 meeting.
* The below is used as baseline for MUSIM capabilities (can still discuss exact details in the next meeting). FFS whether we need separate bits for periodic and aperiodic gaps. FFS if we need capability bit for leaving RRC\_CONNECTED.

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| **Features** | **Index** | **Feature group** | **Components** | **Prerequisite feature groups** | **Type** **(the ‘type’ definition from UE features should be based on the granularity of 1) Per UE or 2) Per Band or 3) Per BC or 4) Per FS or 5) Per FSPC)**  | **Need of FDD/TDD differentiation** | **Need of FR1/FR2 differentiation** | **Capability interpretation for mixture of FDD/TDD and/or FR1/FR2** | **Note** | **Mandatory/Optional** |
| x. Rel-17 MUSIM  | X-0  | Gap support for MUSIM UE | Indicates UE support periodic gap for MUSIM | MUSIM support over NAS |  UE | No | No  |   |   | Optional with capability signalling |
|  |  |  | Indicates UE support aperiodic gap for MUSIM | MUSIM support over NAS |  UE | No | No  |   |   | Optional with capability signalling |