**3GPP TSG-RAN WG2 Meeting #126 R2-240xxxx**

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

|  |
| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **4816** | **rev** | **1** | **Current version:** | **18.1.0** |  |
|  |
| *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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Correction on the configuration of Redcap CFR [RedCapMBS\_Bcast] |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | TEI18, NR\_MBS-Core, NR\_redcap-Core |  | ***Date:*** | 2024-05-10 |
|  |  |  |  |  |
| ***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)* |
|  |   |
| ***Reason for change:*** | Currently, the presence of *cfr-ConfigMCCH-MTCH-RedCap* IE is optional with Need S, while the *mcch-ConfigRedCap-r18* IE is conditionally optional based on **Cond CFR-RedCap**.The condition for the presence of *cfr-ConfigMCCH-MTCH-RedCap* IE should be the same as *mcch-ConfigRedCap-r18*.  |
|  |  |
| ***Summary of change:*** | The condition for the presence of *mcch-ConfigRedCap-r18* IE is updated the same as *cfr-ConfigMCCH-MTCH-RedCap*. And the condition of **Cond CFR-RedCap** is removed. |
|  |  |
| ***Consequences if not approved:*** | There is a misalignment between configuring *cfr-ConfigMCCH-MTCH-RedCap* IE and *mcch-ConfigRedCap-r18* IE. |
|  |  |
| ***Clauses affected:*** | 6.3.1 |
|  |  |
|  | **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

#### – *SIB20*

*SIB20* contains the information required to acquire the MCCH/MTCH configuration for MBS broadcast.

*SIB20* information element

-- ASN1START

-- TAG-SIB20-START

SIB20-r17 ::= SEQUENCE {

 mcch-Config-r17 MCCH-Config-r17,

 cfr-ConfigMCCH-MTCH-r17 CFR-ConfigMCCH-MTCH-r17 OPTIONAL, -- Need S

 lateNonCriticalExtension OCTET STRING OPTIONAL,

 ...,

 [[

 cfr-ConfigMCCH-MTCH-RedCap-r18 CFR-ConfigMCCH-MTCH-r17 OPTIONAL, -- Need S

 mcch-ConfigRedCap-r18 MCCH-Config-r17 OPTIONAL -- Need S

 ]]

}

MCCH-Config-r17 ::= SEQUENCE {

 mcch-RepetitionPeriodAndOffset-r17 MCCH-RepetitionPeriodAndOffset-r17,

 mcch-WindowStartSlot-r17 INTEGER (0..79),

 mcch-WindowDuration-r17 ENUMERATED {sl2, sl4, sl8, sl10, sl20, sl40,sl80, sl160} OPTIONAL, -- Need S

 mcch-ModificationPeriod-r17 ENUMERATED {rf2, rf4, rf8, rf16, rf32, rf64, rf128, rf256,

 rf512, rf1024, rf2048, rf4096, rf8192, rf16384, rf32768, rf65536}

}

MCCH-RepetitionPeriodAndOffset-r17 ::= CHOICE {

 rf1-r17 INTEGER(0),

 rf2-r17 INTEGER(0..1),

 rf4-r17 INTEGER(0..3),

 rf8-r17 INTEGER(0..7),

 rf16-r17 INTEGER(0..15),

 rf32-r17 INTEGER(0..31),

 rf64-r17 INTEGER(0..63),

 rf128-r17 INTEGER(0..127),

 rf256-r17 INTEGER(0..255)

}

-- TAG-SIB20-STOP

-- ASN1STOP

| *SIB20* field descriptions |
| --- |
| ***cfr-ConfigMCCH-MTCH***Common frequency resource used for MCCH and MTCH reception. If the field is absent, the CFR for broadcast has the same location and size as CORESET#0 and PDSCH configuration of MCCH is the same as PDSCH configuration provided in *initialDownlinkBWP* in *SIB1*. |
| ***cfr-ConfigMCCH-MTCH-RedCap***Common frequency resource used for MCCH and MTCH reception for (e)RedCap UEs. If the field is absent, the (e)RedCap UE can use *cfr-ConfigMCCH-MTCH* if the UE supports the configured bandwidth. |
| ***mcch-ConfigRedcap***Indicates MBS broadcast MCCH configuration for (e)Redcap UEs. If the field is absent, the (e)RedCap UE can use *mcch-Config* if the UE supports the bandwidth configured by *cfr-ConfigMCCH-MTCH*. |
| ***mcch-WindowDuration***Indicates, starting from the slot indicated by *mcch-WindowStartSlot*, the duration in slots during which MCCH may be scheduled. Absence of this field means that MCCH is only scheduled in the slot indicated by *mcch-WindowStartSlot*. The network always configures *mcch-WindowDuration* to be shorter or equal to the length of MCCH repetition period. |
| ***mcch-ModificationPeriod***Defines periodically appearing boundaries, i.e. radio frames for which SFN mod *mcch-ModificationPeriod* = 0. The contents of different transmissions of MCCH information can only be different if there is at least one such boundary in-between them. Value rf2 corresponds to two radio frames, value rf4 corresponds to four radio frames and so on. |
| ***mcch-RepetitionPeriodAndOffset***Defines the length and the offset of the MCCH repetition period. rf1 corresponds to a repetition period length of one radio frame, rf2 corresponds to a repetition period length of two radio frames and so on. The corresponding integer value indicates the offset of the repetition period in the number of radio frames. MCCH is scheduled in the MCCH transmission window starting from each radio frame for which: SFN mod repetition period length = offset of the repetition period. |
| ***mcch-WindowStartSlot***Indicates the slot in which MCCH transmission window starts. |

|  |  |
| --- | --- |
|  |  |

End of Change