**3GPP TSG-RAN WG2 Meeting #121bis-e *R2-230xxxx***

Online, Apr 17th – Apr 26th, 2023 *revision of R2-2302523*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.331** | **CR** | **3946** | **rev** | **1** | **Current version:** | **17.4.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Corrections to TS 38.331 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | CATT, CBN | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MBS-Core | | | | |  | ***Date:*** | | | 2023-4-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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 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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Issue 1:  The search space for MCCH, i.e. *searchSpaceMCCH-r17*, is provided in SIB1, but this is not covered in the general description of 5.9.1.1 for the configuration information required by UE to receive MCCH.  Issue 2:  A cell may provide SIB20 but it does not always broadcasting SIB20 as on demand manner is supported for SIB20. In the current description of 5.9.2.3, UE decides to acuqire MCCH based on whether SIB20 is broadcasting in the target cell, but this is not correct since UE should check whether SIB20 is provided in the scheduling information of SIB1.  Issue 3:  UE should firstly establish the SDAP entity and then receive the DL-SCH for broadcast reception. But in 5.9.3.3, the descrpition of establishing SDAP entity is after the description of receiving DL-SCH, which is not correct. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Change 1:  In 5.9.1.1, besides SIB20, add SIB1 in the general description for the configuration information required by the UE to receive MCCH.  Change 2:  In 5.9.2.3, change the condition “if the UE enters a cell broadcasting *SIB20*;” to “if the UE enters a cell providing *SIB20*;”.    Change 3:  In 5.9.3.3, move the description of receiving DL-SCH after the description of the establishing SDAP entity.    **Impact analysis**  Impacted 5G architecture options:  NR SA, NR-DC  Impacted functionality:  MBS  Inter-operability:  There are no inter-operability issues found. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | - UE behaviour is not clear on using the MCCH search space in SIB1 to receive MCCH shall be lost in the general description of 5.9.1.1.  - Wrong UE behavior to check SIB20 for acquiring MCCH exists in 5.9.2.3.  - UE may perform the applying of the configuation and DL-SCH reception in a wrong order. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.9.1.1, 5.9.2.3, 5.9.3.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

*First Modified Subclause*

5.9.1.1 General

UE receiving or interested to receive MBS broadcast service(s) applies MBS broadcast procedures described in this clause as well as the MBS Interest Indication procedure as specified in clause 5.9.4.

MBS broadcast configuration information is provided on MCCH logical channel. MCCH carries the *MBSBroadcastConfiguration* message which indicates the MBS broadcast sessions that are provided in the cell as well as the corresponding scheduling related information for these sessions. Optionally, the *MBSBroadcastConfiguration* message may also contain a list of neighbour cells providing the same broadcast MBS service(s) as provided in the current cell. The configuration information required by the UE to receive MCCH is provided in *SIB1* and *SIB20*. Additionally, System Information provides also an information related to service continuity of MBS broadcast in *SIB21*.

*Next Modified Subclause*

#### 5.9.2.3 MCCH information acquisition by the UE

An MBS capable UE interested to receive or receiving an MBS broadcast service shall:

1> if the procedure is triggered by an MCCH information change notification:

2> start acquiring the *MBSBroadcastConfiguration* message on MCCH in the concerned cell from the slot in which the change notification was received;

1> if the UE enters a cell providing *SIB20*; or

1> if the UE receives *sCellSIB20*:

2> acquire the *MBSBroadcastConfiguration* message on MCCH in the concerned cell at the next repetition period.

*Next Modified Subclause*

#### 5.9.3.3 Broadcast MRB establishment

Upon a broadcast MRB establishment, the UE shall:

1> establish a PDCP entity and an RLC entity in accordance with *MRB-InfoBroadcast* for this broadcast MRB included in the *MBSBroadcastConfiguration* message and the configuration specified in 9.1.1.7;

1> configure the MAC layer in accordance with the *mtch-SchedulingInfo* (if included);

1> configure the physical layer in accordance with the *mbs-SessionInfoList*, *searchSpaceMTCH,* and *pdsch-ConfigMTCH*, applicable for the broadcast MRB;

1> if an SDAP entity with the received *mbs-SessionId* does not exist:

2> establish an SDAP entity as specified in TS 37.324 [24] clause 5.1.1.

2> indicate the establishment of the user plane resources for the *mbs-SessionId* to upper layers.

1> receive DL-SCH on the cell where the *MBSBroadcastConfiguration* message was received for the established broadcast MRB using *g-RNTI* and *mtch-SchedulingInfo* (if included) in this message for this MBS broadcast service;

*End of Modificatcion*