**3GPP TSG-SA WG6 Meeting #64S6-245376**

**Orlando, USA, 18th – 22nd November 2024 (revision of S6-245208)**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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| ***Title:*** |  | | | | | | | | | |
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| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MCOver5MBS | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The clause number refered in step 2 of clause 7.3.3.1.3 is not correct. It should be 7.3.3.1.2 rather than 7.3.3.1. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correct the clause number refered in step 2 of clause 7.3.3.1.3 to 7.3.3.1.2. | | | | | | | | |
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| ***Consequences if not approved:*** | | Wrong reference number makes confusions. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.3.3.1.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

##### 7.3.3.1.3 Procedure for dynamic MBS sessions

In this scenario, the group communication is already taken place and a unicast PDU session is utilized for MC DL transmission. When the MC service server decides to use an MBS session for the transmission under consideration, the MC service server interacts with 5GC to reserve the necessary network resources.

NOTE 1: The MC service server logic for determining when to create a dynamic MBS session is implementation specific.

The procedure in figure 7.3.3.1.3-1 shows one MC service client receiving the DL media. There might also be MC service clients in the same MC group communication session that receive the communication on an MBS session.

Pre-conditions:

- MC service client is attached to the 5GS, registered and affiliated to a certain MC service group X.

- The MC service server is aware whether to request the creation of the MBS service server with or without dynamic PCC rule.

- The MC service server has performed MB-SMF discovery and selection either directly or indirectly, via NEF/MBSF, unless the corresponding information is locally configured.

- No MBS session exists, or the existing multicast MBS session fails to satisfy the QoS requirements.



Figure 7.3.3.1.3-1: Use of dynamic MBS session.

1. An MC service group communication session is established as specified in 3GPP TS 23.379 [6], 3GPP TS 23.281 [4], or 3GPP TS 23.282 [5].

2. The MC service server decides to create an MBS session. The MBS session creation procedure takes place as described in step 1 of clause 7.3.3.1.2.

NOTE 2: In case of LTE eMBMS and 5G MBS co-existence, the MC service server may trigger the establishment of eMBMS bearers as described in 3GPP TS 23.280 [3] (or it may establish a unicast bearer) based on the RAT capabilities supported by the affiliated members in the MC service group X. If MBSF and BM-SC are co-located, TMGI used by 4G eMBMS can be the same as the MBS session ID.

NOTE 3: For the case of multi carrier support for broadcast MBS sessions, the MC service server may indicate the frequencies within a broadcast MBS service area by providing the MBS frequency selection area ID(s) (MBS FSA ID(s)) to the MB-SMF, or indirectly, via NEF.

3. The MC service server provides the MC service client with the information related to the created MBS session via an MBS session announcement. As described in table 7.3.2.1-1, the session announcement includes information such as the MBS session ID, MBS session mode (broadcast or multicast service type), and SDP information related to the MBS session.

Optionally, the MC service server includes the information elements related to the established eMBMS bearer once the MC service server has determined the need, as indicated in table 7.3.2.1-1. The MC service clients which camp on LTE will subsequently react to the information elements related to the eMBMS bearer as described in 3GPP TS 23.280 [3].

4. The MC service client stores the MBS session ID and other associated information.

5. The MC service client may send an MBS session announcement ack back to the MC service server.

6. Based on the MBS session mode (either multicast or broadcast), the following actions take place:

6a. For multicast MBS sessions, MC service client initiates a UE session join request towards the 5GC using the information provided via the MBS session announcement. Hence, upon the first successful UE session join request, the multicast is then established, and the radio resources are reserved, if the session is in active state. The established session can either be in active or inactive state as indicated in 3GPP TS 23.247 [15]. The MC service client sends a UE session join notification towards the server. If indicated in the MBS session announcement information, MC service clients report the monitoring state (i.e., the reception quality of the MBS session) back to the MC service server; or

6b. For broadcast MBS sessions, if the MC service client is accessing over 5G, the session is established as part of the session creation procedures as described in 3GPP TS 23.247 [15], and the network resources are reserved both in 5GC and NG-RAN. The MC service clients start monitoring the reception quality of the broadcast MBS session. If indicated in the MBS session announcement information, MC service clients report the monitoring state (i.e., the reception quality of the MBS session) back to the MC service server.

NOTE 4: It is implementation specific whether the MBS session reception quality level is determined per MBS session, per media stream or per MBS QoS flow level via e.g., measurements of radio level signalling such as the reference signals from the NG-RAN node(s), packet loss.

7. The MC service clients provide a listening status notification related to the announced session (multicast or broadcast session) in the form of an MBS listening status report.

8. An MC service group communication via dynamic MBS session is established.