**3GPP TSG-WG SA2 Meeting #156E (e-meeting) *S2-2304435***

**April 17th – 21th, 2023 (revision of S2-230XXXX**)

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.247** | **CR** | **0223** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *For* ***[HELP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <http://www.3gpp.org/Change-Requests>.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | update about SMF selection in TS 23.247 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS\_Ph2 | | | | |  | ***Date:*** | | | 2023-4-07 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | When the current SMF(s) are upgraded to support the MBS service, it’s quite possible that only part of SMF(s) are upgraded and the others would not. In the case, the AMF needs to select an upgraded SMF supporting the MBS service to serve the UE when a UE request the multicast MBS service.  However, when a UE sends the UE join request for the multicast MBS Session, the join request is included in the N1 SM container, which is transparent for AMF. The AMF cannot be aware that it needs to select an SMF supporting the MBS service to serve the UE.  Hence, it’s proposed that when a UE registers, the AMF can check the MBS subscription data from the UDM, if the MBS subscription data indicates that the UE is authorized to use Multicast MBS service, no matter whether the UE is requesting the MBS service, the AMF would select an SMF supporting the MBS service to ensure that the MBS service would be provided successfully, in case the MBS service is requested. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | If the MBS subscription data received from the UDM indicates that the UE is authorized to use Multicast MBS service, the AMF would select an SMF supporting the MBS service, no matter whether the UE is requesting the MBS service. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The AMF cannot select an SMF supporting the MBS service to serve the UE requesting MBS service and, furthermore, the MBS service would fail. | | | | | | | | |
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| ***Clauses affected:*** | | 7.2.1.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 Change \* \* \*

#### 7.2.1.2 Establishment of a PDU Session that can be associated with multicast session(s)

The PDU Session associated with Multicast MBS session(s) (i.e. the associated PDU Session) is established using the procedures as specified in TS 23.502 [6] clause 4.3.2.2 with the following differences:

- In step 2, if the MBS subscription data in the access and mobility subscription data received from the UDM indicates that the UE is authorized to use Multicast MBS service, the AMF selects an SMF capable of handling Multicast MBS sessions based on DNN and S-NSSAI, locally configured data or a corresponding SMF profile stored in the NRF. For indirect discovery, the AMF requests the SCP to select an SMF capable of handling Multicast MBS sessions.

- In step 4, if MBS subscription data for the UE (i.e. corresponding SUPI), DNN and S-NSSAI of the HPLMN or subscribed SNPN is not available, the SMF retrieves the MBS subscription data using Nudm\_SDM\_Get (SUPI, MBS subscription data, selected DNN, S-NSSAI of the HPLMN or subscribed SNPN, Serving PLMN ID (or PLMN ID and NID)) and subscribes to be notified when this subscription data is modified using Nudm\_SDM\_Subscribe (SUPI, MBS subscription data, selected DNN, S-NSSAI of the HPLMN or SNPN, Serving PLMN ID (or PLMN ID and NID)). UDM may get this information from UDR by Nudr\_DM\_Query (SUPI, MBS data, selected DNN, S-NSSAI of the HPLMN or subscribed SNPN, Serving PLMN ID (or PLMN ID and NID)) and may subscribe to notifications from UDR for the same data by Nudr\_DM\_subscribe. The MBS subscription data can also be retrieved along with the Session Management Subscription data, i.e. with additional input parameter for MBS subscription data in the Nudm\_SDM services.

NOTE 1: In this release, roaming is not supported, i.e. HPLMN and Serving PLMN are the same and subscribed SNPN and serving SNPN are same.

\* \* \*End of Changes \* \* \*