**3GPP TSG- Meeting #125S4-231358**

**, Sweden, – 25. August 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **2** | **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 |  | Radio Access Network |  | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | [MBUSA] Correction of Service Area mapping | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson LM | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MBUSA | | | | |  | ***Date:*** | | | 28.6.2023 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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:*** | | It is currently unclear, which Network Function is providing the capability of mapping between different MBS Service Area representations, i.e. external and internal. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | It is clarified, that the MBSF expects the internal MBS Service Area representation at Nmb5 and Nmb10, while the NEF supports the capability of mapping between external and internal representations. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Inconsistent with stage 2 specifications (e.g. TS 23.501), which may lead to wrong implementation in other stage 3 WGs (e.g. CT3) and issues during interoperability testings. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.5.9, 7.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\*\* First Change \*\*\*\*

### 4.5.9 Mapping of MBS Distribution Session to MBS Session Context

Except when it is in the INACTIVE state, an MBS Distribution Session in the MBSF is associated with an MBS Session Context in the MB-SMF. When the MBSF invokes the Nmbsmf\_MBSSession service, the parameters defined in clause 6.9 of TS 23.247 [5] shall be populated as indicated in table 4.5.9‑1 below.

Table 4.5.9‑1: Mapping of baseline parameters to MBS Session Context parameters

|  |  |  |  |
| --- | --- | --- | --- |
| MBS Session Context parameter | Source | Clause | Source parameter |
| State | MBS Distribution Session. | 4.5.6 | State. |
| Source-Specific Multicast (SSM)IP address | MBS Distribution Session. | 4.5.6 | MBS Session Identifier |
| TMGI |
| MBS Service Area | MBS Distribution Session. | 4.5.6 | Target service area (see NOTE 2) |
| Area Session Identifier | Assigned by MB-SMF. | 4.5.6 | Location-dependent service flag |
| MBS Frequency Selection Area (FSA) ID (see NOTE 1) | MBS Distribution Session. | 4.5.6 | MBS Frequency Selection Area |
| MB-SMF | Not applicable to MB-SMF. | N/A | Not applicable. |
| AMF | Discovered by MB-SMF | N/A | Not applicable. |
| SMF | Selected by AMF. | N/A | Not applicable. |
| PCF | [Selected by MBSF or MB-UPF.] | N/A | Not applicable. |
| QoS (flow) information | MBS Distribution Session. | 4.5.6 | QoS information |
| Tunnel Endpoint Identifier (TEID) for distribution | Assigned by MB‑SMF. | N/A | Not applicable. |
| IP multicast and source address for data distribution | ? | N/A | Not applicable. |
| NG-RAN IP address for data distribution | Selected by MB‑SMF. | N/A | Not applicable. |
| NG-RAN Node ID(s) | Not applicable to MB-SMF. | N/A | Not applicable. |
| UE IDs | Not applicable to MB-SMF. | N/A | Not applicable. |
| NOTE 1: Applicable to Broadcast MBS Session only.  NOTE 2: Target service area is signalled to the MBSF at reference point Nmb10/Nmb5 in the form of a Tracking Area Identifier (TAI) list and/or Cell ID list. External-facing target service area identification at reference point N33 is translated by the NEF into the appropriate form(s) as required. | | | |

In addition, the following parameters to the Nmbsmf\_MBSSession\_Create service operation defined in clause 9.1.3.6 of TS 23.247 [5] shall be populated as indicated in table 4.5.9‑2 below.

Table 4.5.9‑2: Mapping of baseline parameters to Nmbsmf\_MBSSession\_Create parameters

|  |  |  |  |
| --- | --- | --- | --- |
| MBSSessionCreate input parameter | Source | Clause | Source parameter |
| MBS Service type | MBS User Service | 4.5.3 | Service type |
| MBS activation time | MBS User Data Ingest Session | 4.5.5 | Active period |
| MBS termination time |
| Indication that any UE may join (see NOTE) | MBS Distribution Session | 4.5.6 | Restricted membership flag |
| [MBS Service requirements or MBS Session information] | MBS Distribution Session | 4.5.3 | QoS information |
| Data Network Name (DNN) | Selected by MBSF based on MBS Application Provider authorisation. | N/A | Not applicable. |
| Single-Network Slice Selection Assistance Information (S-NSSAI) | N/A | Not applicable. |
| NOTE: Applicable to Multicast MBS Session only. | | | |

\*\*\*\* Next Change \*\*\*\*

### 7.2.1 General

The following table illustrates the set of Network Function services exposed by the MBSF.

Table 7.2-1: NF services provided by MBSF

|  |  |  |  |
| --- | --- | --- | --- |
| Service name | Service operation name | Operation semantics | Example consumer(s)  (see NOTE) |
| Nmbsf\_MBSUserService | Create | Request/Response | AF, NEF |
| Retrieve | Request/Response | AF, NEF |
| Update | Request/Response | AF, NEF |
| Destroy | Request/Response | AF, NEF |
| Nmbsf\_MBSUserDataIngestSession | Create | Request/Response | AF, NEF |
| Retrieve | Request/Response | AF, NEF |
| Update | Request/Response | AF, NEF |
| Destroy | Request/Response | AF, NEF |
| StatusSubscribe | Subscribe/Notify | AF, NEF |
| StatusUnsubscribe | AF, NEF |
| StatusNotify | AF, NEF |
|  | StatusSubscribeMod |  | AF, NEF |
| NOTE: To support MBS Application Providers (AF/AS) outside the trusted DN, these services shall be exposed via the NEF (N33+Nmb5) as *Nnef\_MBSUserService* and *Nnef\_MBSUserDataIngestSession* respectively, as specified in clauses 4.4.29.5 and 4.4.29.6 respectively of TS 29.522 [15]. In this case, the NEF performs any necessary mapping between external parameters and internal 5GC parameters (e.g., translating externally formatted target service area identification to Tracking Area Identifier (TAI) list and/or Cell ID list). | | | |

\*\*\*\* Last Change \*\*\*\*