**3GPP TSG-CT WG1 Meeting #133-eC1-216657**

**E-meeting, 11-19 November 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** | **3709** | **rev** | **-** | **Current version:** | **17.4.1** |  |
|  | | | | | | | | |
| *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:*** | MBS operation in Requested MBS container IE | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2021-11-04 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In Requested MBS container IE the UE can request an MBS operation for a number of included MBS session information parameters identifying individual MBS session. However, the MBS operation is indicated on top level of the IE and therefore the same MBS operation applies to all included MBS sessions. This limits flexibility and it is not possible to e.g. request join one MBS session and request leave another MBS session, and in this scenario would require two NAS procedures.  Therefore it is proposed to move the MBS operation into the MBS session information part of Requested MBS container IE so that individual MBS operations can be indicated per included MBS session | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | MBS operation is moved into the MBS session information part of Requested MBS container IE | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Cases when different MBS operations are needed for different MBS sessions will require multiple NAS procedures and increase MBS related signalling. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.11.4.30 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | At implementation in the specification, the rows of Figure 9.11.4.30.1 with deleted contents need to be deleted. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 9.11.4.30 Requested MBS container

The purpose of the Requested MBS container information element is for UE to request to join or leave one or more MBS sessions.

The Requested MBS container information element is coded as shown in figure 9.11.4.30.1, figure 9.11.4.30.2, figure 9.11.4.30.3, figure 9.11.4.30.4 and table 9.11.4.30.1.

The Requested MBS container is a type 4 information element with a minimum length of 8 octets and a maximum length of n octets.

Editor's note: The maximum number of MBS session informations is FFS and is currently assumed to be 4.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | | 6 | 5 | | 4 | | 3 | | 2 | | 1 |  |
| Requested MBS container IEI | | | | | | | | | | | | | octet 1 |
| Length of Requested MBS container contents | | | | | | | | | | | | | octet 2 |
|  |  |  | | |  | |  | |  | |  | |  |
|  | | | | | | | | | | |  |
| MBS session information 1 | | | | | | | | | | | | | octet 3  octet i |
| MBS session information 2 | | | | | | | | | | | | | octet i+1\*  octet l\* |
| … | | | | | | | | | | | | | octet l+1\*  octet m\* |
| MBS session information p | | | | | | | | | | | | | octet m+1\*  octet n\* |

Figure 9.11.4.30.1: Requested MBS container information element

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | | 6 | 5 | | 4 | | | 3 | 2 | | 1 |  |
| 0 | 0 | 0 | | | 0 | | MBS operation | | | | Type of MBS session ID | | octet 3 |
| spare | | | | | | | |  | | |  |
| MBS session ID | | | | | | | | | | | | | octet 4  octet i |

Figure 9.11.4.30.2: MBS session information

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| TMGI | | | | | | | | octet 4 |
| octet i |

Figure 9.11.4.30.3: MBS session ID for Type of MBS session ID = "Temporary Mobile Group Identity (TMGI)"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Source IP address information | | | | | | | | octet 4  octet v |
| Destination IP address information | | | | | | | | Octet v+1  Octet i |

Figure 9.11.4.30.4: MBS session ID for Type of MBS session ID = "Source specific IP multicast address"

**Table 9.11.4.30.1: Requested MBS container information element**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type of MBS session ID (bits 1 to 2 of octet 3) | | | | | |
| Bits | | | | | |
| **2** | | **1** |  |  | |
| 0 | | 1 |  | Temporary Mobile Group Identity (TMGI) | |
| 1 | | 0 |  | Source specific IP multicast address | |
| All other values are reserved. | | | | | |
|  | | | | | |
| MBS operation (bits 3 to 4 of octet 3) | | | | | |
| Bits | | | | | |
| **4** | **3** | |  | |  |
| 0 | 1 | |  | | Join MBS session |
| 1 | 0 | |  | | Leave MBS session |
| All other values are reserved. | | | | | |
|  | | | | | |
| Bits 5 to 8 of octet 3 are spare and shall be coded as zero. | | | | | |
|  | | | | | |
| If Type of MBS session ID is set to "Temporary Mobile Group Identity (TMGI)", the MBS session ID contains the TMGI (octet 4 to i) and is coded as described in subclause 10.5.6.13 in 3GPP TS 24.008 [12] starting from octet 2. | | | | | |
|  | | | | | |
| If Type of MBS session ID is set to "Source specific IP multicast address", the MBS session ID contains the Source IP address information and the Destination IP address information. | | | | | |
|  | | | | | |
| Source IP address information (octet 4 to v) | | | | | |
| This field contains the IP unicast address used as source address in IP packets for identifying the source of the multicast service. | | | | | |
|  | | | | | |
| The Source IP address information is coded as the PDU address described in subclause 9.11.4.10 starting from octet 3 in figure 9.11.4.10.1 and table 9.11.4.10.1. | | | | | |
|  | | | | | |
| Destination IP address information (octet v+1 to i) | | | | | |
| This field contains the IP multicast address used as destination address in related IP packets for identifying a multicast service associated with the source. | | | | | |
|  | | | | | |
| The Destination IP address information is coded as the PDU address described in subclause 9.11.4.10 starting from octet 3 in figure 9.11.4.10.1 and table 9.11.4.10.1. | | | | | |
|  | | | | | |

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