3GPP TSG SA WG2#165 S2-2401113

Hyderabad, India, October 14-18 2024 (revision of S2-2410818)

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **23.501** | **CR** | **5687** | **rev** | **2** | **Current version:** | **19.1.0** |  |
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| *For* [***HELP***](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 | **x** | Core Network | **x** |

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| ***Title:***  | Support of UE served by a MWAB: Additional ULI |
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| ***Source to WG:*** | Nokia, Qualcomm Inc., Ericsson, Samsung |
| ***Source to TSG:*** | SA2 |
|  |  |
| ***Work item code:*** | VMR\_Ph2 |  | ***Date:*** | 2024-09-25 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***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 canbe 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)* |
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| ***Reason for change:*** | The approved VMR\_Ph2 work item (SP-240632) is set to specify the architecture enhancements, functionalities and procedures to support MWAB based on conclusions of TR 23.700-06 (clause 8).This CR introduces the descriptions on how the system supports the indication of Additiona ULI to LMF |
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| ***Summary of change:*** | New clause added to describe how the MWAB gNB adds additional ULI and how AMF handles it. |
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| ***Consequences if not approved:*** | MWAB feature cannot be supported. |
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| ***Clauses affected:*** |  5.49.4 |
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|  | **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*

### 5.49.4 Support of Additional ULI

The TAC and cell ID broadcasted by the MWAB-gNB are configured and reconfigured e.g. upon MWAB mobility as specified in TS 38.401 [42]. The MWAB-gNB provides these in the User Location Information (ULI) to the AMF serving the UE accessing the MWAB.

The MWAB-gNB shall provide the Additional User Location Information (Additional ULI) that reflects the location of the MWAB-UE to the AMF when it sends the User Location Information (ULI) over N2 messages.

Editor's Note: for the case that the BH PLMN and the MWAB broadcasted PLMN are different the exact content and handling of the Additional ULI will be defined based on RAN feedback

If ULI reporting is configured at the MWAB-gNB for a UE, the MWAB-gNB shall report additional ULI (and ULI) for the UE when the MWAB-gNB cell serving the MWAB-UE changes.

The AMF may consider the 'Additional ULI' when it determines UE location and manages the UE location related functions (e.g. Mobility Restrictions).

Based on operator policy, the AMF may send the Additional ULI when the AMF provides user location information it has received over the N2 interface to a NF (e.g. the LMF as specified in clause 5.19.1 of TS 23.273 [87]).

*End of CHANGES*