**3GPP TSG-WG SA2 Meeting #156-e *S2-23xxxx***

**Electronic meeting, 17 - 21 April, 2023 (revision of S2-230xxxx)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.501** | **CR** | xxx | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Authorization information indication to UE. | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | VMR | | | | |  | ***Date:*** | | | 2023-04-06 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | This CR attempts to resolve below EN:  Editor's note: In what conditions and how (e.g. UCU or deregistration with re-registration) an MBSR is informed when there is a change in the MBSR authorization information is FFS.  On this:   |  |  |  |  | | --- | --- | --- | --- | |  | MBSR | IAB-UE | Normal UE | | Registration Accept condition | Allowed | Allowed | Allowed | | Registration Accept condition | Not allowed | Not allowed | Allowed | | Registration Accept condition | Not allowed | Allowed | Allowed | | Registration Reject condition | Not allowed | Not allowed | Not allowed |   We believe above are the conditions to determine by network if registration accept or registration reject message has to be given.  For the cases where registration accept can be given, when there is a change in subscription network can choose either of UCU or deregistration with re-registration required based on implementation. UCU can directly indicate the subscription status and deregistration with re-registration required case using registration procedure network can indicate the allowed/not allowed information to the UE. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Resolve the EN | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | EN is not resolved. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.35A.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 (all new) \* \* \* \*

5.35A.4 MBSR authorization

For a MBSR, the subscription information stored in the HPLMN indicates whether it is authorized to operate as MBSR, and the corresponding location and time periods.

Editor's note: The subscription information for the MBSR will be further specified.

When MBSR roaming is supported, a roaming agreement between VPLMN and HPLMN regarding MBSR operation is in place, and the 5GC can make use of it for authorization of MBSR in VPLMN. MBSR (IAB-DU) can use IAB-node integration procedure or inter-IAB-donor gNB mobility procedure to integrate into VPLMN to provide service.

The MBSR(IAB-UE) is assumed to be configured with preferred PLMN lists and forbidden PLMNs by the HPLMN for the MBSR operation.

Editor's note: Configuration mechanism will be further described based on development of clause 5.35A.2.1.

When the MBSR (IAB-UE) performs initial registration with the serving PLMN, it indicates the request to operate as a MBSR as described in clause 5.35A.1. The AMF authorizes the MBSR based on the subscription information, and provides MBSR authorized indication to NG-RAN. The MBSR establishes the connection to OAM system using the configuration information for MBSR operation.

Editor's note: It is FFS whether the MBSR indication is a new IE or part of UE 5G MM capabilities.

Editor's note: Whether existing IAB-Operation allowed indication and IAB authorized indication can be reused for MBSR will be determined.

NOTE 1: How the MBSR obtains the configuration information for MBSR operation is described in clause 5.35A.2.1.

The AMF of the MBSR can indicate to the MBSR IAB-UE that it is not allowed to act as an MBSR IAB node as part of registration procedure, and in this case the AMF does not include MBSR authorization indication to donor-gNB. The AMF may provide the indication either in:

1. a Registration Accept message, if the UE can act as normal UE, IAB-UE(not as MBSR IAB-UE) or MBSR IAB-UE, and indicate to UE whether it can act as normal UE, IAB-UE(not as MBSR IAB-UE) or MBSR IAB-UE, this indication is valid for current registration area; or
2. a Registration Reject message, if the PLMN does not allow the MBSR IAB-UE to be registered in the PLMN either as normal UE, IAB-UE(not as MBSR IAB-UE) or MBSR IAB-UE. The UE shall perform PLMN selection as described in TS 23.122 [17].

Due to change in subscription, the AMF may send either:

1. UE Configuration Update message with an indication whether UE can act as normal UE, IAB-UE(not as MBSR IAB-UE) or MBSR IAB-UE, this indication is valid for current registration area; or
2. Deregistration Request message indicating re-registration required. As part of registration procedure UE will be indicated if it can act as normal UE, IAB-UE (not as MBSR IAB-UE) or MBSR IAB-UE.

If the UE is indicated that it cannot act as IAB-UE or MBSR IAB-UE, then UE should not request to act so till UE moves out of current registration area (i.e. TAI list).

NOTE 2: The mechanism applies to both roaming and non-roaming MBSR operations.

\* \* \* \* End of changes \* \* \* \*