**3GPP TSG-SA3 Meeting #106-e *draft\_*S3-220162-r1**

**e-meeting, 14–25 February 2022 Merger of S3-220091, S3-220332 and S3-220162**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.501** | **CR** | **1274** | **rev** | **-** | **Current version:** | **17.4.2** |  |
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| *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 | **x** |

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| ***Title:*** | Resolution of authorization issue | | | | | | | | | |
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| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2022-01-17 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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)* | |
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| ***Reason for change:*** | | As defined in TS 33.246, the communication between the UE and the BM-SC is authenticated and integrity protected based on GBA. The BM-SC will act as a NAF according to TS 33.220. Along with the GBA-keys the BSF shall send the user id (IMPI) of the user to the BM-SC.  When the UE initiates an HTTP procedure including MBMS user service IDs towards the BM-SC, HTTP digest authentication as defined in RFC 2617 shall be used for mutual authentication.  If the authentication is successful, the BM-SC Key Request function shall verify whether the UE is authorized to register to the MBMS User Service(s) specified in the request. The authorization information is recorded in the BM-SC. If the UE is authorized, the BM-SC Key Request function registers the UE to the MBMS User Service(s).    *Figure 6.0A: MBMS User Service Registration procedure*  In 5G, as defined in TS 23.247, the following authorizations are defined in UDM:  a) Whether the UE is authorized to use the Multicast service in the PLMN.  b) The authorization for a UE of receiving the content of a specific multicast MBS session.  However, the authorization information is not avaiable in MBSTF, how to authorize the user is still not clear for now.  Editor’s Note saying *“When the AKMA is used, how the MBSTF obtains the authorization information is FFS.”* is captured for 5MBS. Although the EN only mentions the AKMA case, the issue is also applicable for GBA. | | | | | | | | |
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| ***Summary of change:*** | | The MBS user service ID(s) is included in UDM as part of MBS subscription data. MBSTF verifies whether UE is allowed to access the user service by checking the subscription data in UDM. The verification request message including user id and user service id. | | | | | | | | |
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| ***Consequences if not approved:*** | | How to authorize the user for MBSTF is still not clear. | | | | | | | | |
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| ***Clauses affected:*** | | Annex W.4.1.3 | | | | | | | | |
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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:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\* START OF 1st CHANGE\*\*\*\*\*\*\*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[xx] 3GPP TS 26.502: "5G multicast–broadcast services; User Service architecture".

\*\*\*\*\*\*\*\*\*\*\*\* END OF 1st CHANGE\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*START OF 2nd CHANGE\*\*\*\*\*\*\*

### W.4.1.3 User-plane procedure

The UE registers to the MBS service and receives the MBS traffic as specified in TS 33.246 [102] with the following changes.

- MBSTF takes the role of the BM-SC in TS 33.246 [102].

- The UE authenticates to the MBSTF based on the GBA as in MBMS security (see TS 33.246 [102]) or based on the AKMA (see TS 33.535 [104]). When the AKMA is used, the MRK is derived from the KAF as specified in Annex F of TS 33.246 [102] by replacing the Ks\_NAF for the GBA\_ME run with KAF. Furthermore, when the AKMA is used, the MUK is set to KAF. Along with the KAF, the AAnF should send the GPSI of the user to the MBSTF, which shall be used for authorization of MBS service to the UE.

- The identifier(s) of MBS user service(s) in TS 26.502[xx] is included in local configuration in MBSTF or in UDM as part of MBS subscription data for a UE, which identifies the user service(s) that the UE is allowed to join. After recieving the HTTP POST message in TS 33.246 [102] including the identifier(s) of MBS user service(s), MBSTF shall authorize the UE based on local configuration. If no available, the MBSTF should send verification request with user id (i.e. IMPI in GBA or GPSI in AKMA) and identifier(s) of MBS user service(s) to UDM via MBSF/NEF to acquire the authorization result. If the UE is authorized, the MBSTF registers the UE to the MBS user service(s).

NOTE: the local configuration in MBSTF may be preconfigured or provided by AF.

\*\*\*\*\*\*\*\*\*\*\*\* END OF 2nd CHANGE\*\*\*\*\*\*\*\*