**3GPP TSG-SA3 Meeting #108-e *S3-221750r2***

**e-meeting, 22 - 26 August 2022 *was S3-221750***

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.180** | **CR** | **0194** | **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 | **X** |

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| ***Title:*** | [33.180] R18 MC client clarification | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Motorola Solutions, Inc | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MCXSec3 | | | | |  | ***Date:*** | | | 2022-08-22 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | MC UEs that are MC Gateway UEs, relays, or non-3GPP devices are implied but not clearly identified in 33.180. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add clarifying text for MC Gateway UEs, relays, and non-3GPP devices in 33.180. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | MC security may not be implemented properly for MC Gateway UEs, relays, and non-3GPP devices. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.1.1, 5.1.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* START of 1st CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 5.1.1 General

In the context of this specification, a MCX UE is any device which can be used to consume MC services. The MCX UE utilizes a MCX client, IdM Client, and SIP Client to obtain various MC services. The term MCX UE is not limited to devices, which are directly attaching to the 3GPP radio access network, but also includes devices which use gateway UEs or relays, or any other mechanism to establish IP connectivity for the purposes of obtaining MCX services (i.e. Identity Management, Key Management, Voice, Data or Video).  This means that all aspects of MCX security applicable to MCX UEs also apply to all other MCX devices independent from whether they are directly connected to a 3GPP radio access network or using another mechanism for connectivity (like gateways or relays), and every MCX UE regardless of its connectivity method shall perform user authentication and authorisation prior to receiving MCX services.

The generic steps for MCX user authentication and authorisation is shown in figure 5.1.1-1.



Figure 5.1.1-1: MCX authentication and authorisation

At UE power-on, the MCX UE performs EPS UE authentication as specified in TS 33.401 [14] or 5GS UE authentication as specified in TS 33.501 [55], depending on the system. The MCX UE then performs the following steps to complete authentication of the user, authorisation of the user, MCX service registration, and identity binding between signalling layer identities and the MC service ID(s).

- A: MCX user authentication.

- B: SIP Registration and Authentication.

- C: MCX Service Authorization.

These procedures are described in more detail in subsequent clauses.

Steps A and B may be performed in either order or in parallel. For scenarios where this order has an impact on the identity bindings between signalling layer identities and the MC service ID(s), a re-registration (Step B) to the SIP Core may be performed to update the registered signalling layer identity.

If an MCX UE completes SIP registration in Step B prior to performing MCX user authentication in Step A and MCX user service authorization as part of Step C, the MCX UE shall be able to enter a 'limited service' state. In this limited state, where the MCX user is not yet authorized with the MCX service, the MCX UE shall be able to use limited MCX services (e.g. an anonymous MCX emergency communication). The MCX Server is informed of the registration of the MC UE with the SIP core though Step B-2.

Additionally, an HTTP-1 authentication mechanism is used.

NOTE: Mechanisms for confidentiality and integrity protection (not defined in this clause) may be combined only with certain authentication procedures.

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