**3GPP TSG-SA WG3 Meeting #115 S3-240861-r2**

**Athens, GR, 25th February – 1st March 2024 (revision of S3-240301)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.180** | **CR** | **0210** | **rev** | **1** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | [33.180] MC gateway authentication and authorization | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Motorola Solutions, Ericsson | | | | | | | | | |
| ***Source to TSG:*** | WG3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MCXSec3 | | | | |  | ***Date:*** | | | 2024-02-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***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)* | |
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| ***Reason for change:*** | | The MC gateway is a new feature introduced by SA6. SA3 needs to clarify the authentication and authorization of the MC gateway devices and MC Clients that support the MC gateway feature. | | | | | | | | |
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| ***Summary of change:*** | | Add 3GPP network device authentication/authorization clarifications and MC Client authentication/authorization clarifications for those devices (MC gateway UEs and non-3GPP devices) that use the MC gateway feature for mission critical services. | | | | | | | | |
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| ***Consequences if not approved:*** | | The architecture may not align with the security requirements for the MC gateway feature causing implementation errors and interoperability issues. | | | | | | | | |
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| ***Clauses affected:*** | | 5.X (new), 5.X.1 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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.X MC gateway authentication and authorisation

#### 5.X.1 General

There are two distinct authentication and authorization mechanisms required in order to allow an MC Client residing on a MC gateway UE or an MC Client residing on a non-3GPP device (connecting via an MC gateway UE) access to MC Services. The first mechanism is 3GPP network device authentication and authorization and the second mechanism is MC Client authentication and authorization.

The MC gateway UE requires authentication and authorisation by the 3GPP network prior to obtaining MC Services. If the 3GPP network authentication and authorization procedures are successful and the MC gateway UE is granted 3GPP network access and connectivity, then the MC gateway UE may provide the non-3GPP device access to MC Services via MC Clients.

Two different types of non-3GPP devices are supported, those which can host MC Clients and those which cannot host MC Clients. Regardless of whether the MC Client is hosted on the MC gateway UE or on the non-3GPP device, every MC Client shall follow the authentication and authorization procedures defined in clause 5.1 in order to access MC Services.

NOTE: How information is protected in transit from the non-3gpp device to the MC client when residing on the MC gateway UE is out of scope of 3GPP.

Figure 5.X.1-1 provides a summary of the steps required to authenticate and authorize the use of an MC gateway UE and MC Clients.



Figure 5.X.1-1 MC Gateway Authentication and Authorization Mechanisms

The authentication and authorization mechanisms shown in Figure 5.X.1.1-1 are described here:

1. Authentication and authorization of the MC gateway UE device onto the 3GPP network. The 3GPP device authentication of the MC gateway UE device follows the procedures defined in TS 33.501 [55]. This is to establish 3GPP network connectivity and network routing.

2. Establishment of connectivity between the non-3GPP device and the MC gateway UE. Specification of the protocol and security used on the interface between the MC gateway UE and the non-3GPP device is out of scope of 3GPP. The connectivity between the MC gateway UE and the non-3GPP device may be established prior to Step 1.

3. Authentication and authorization of the MC Client for MC services with the MC System. The MC Client, residing either on the MC gateway UE or on the non-3GPP device, shall follow the authentication and authorization security framework as defined in clause 5.1 of this document. If the MC Client resides on the non-3GPP device, the MC gateway UE supports the authentication and authorization of the MC Client by forwarding all messages (unmodified) between the MC Client on the non-3GPP device and the MC System.

Upon successful completion of the authentication and authorization of the MC Client onto the MC System (Step 3), the MC gateway UE hosting an MC Client or the non-3GPP device hosting an MC Client may now access MC Services as allowed by their access token(s) obtained from the MC IdMS and the associated user profile obtained from the CMS.

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