**3GPP TSG-SA WG6 Meeting #38-e S6-201189**

**e-meeting, 20th – 31st July 2020 (revision of S6-201077)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.282** | **CR** | **0231** | **rev** | **1** | **Current version:** | **17.3.0** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Functional alias handling for IPCon | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 2020-07-23 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | If the functional alias is used as a target for the one-one IPCon requests and if the end-end encryption to be used then originating client should know the MCData ID derived by resolving the functional alias. | | | | | | | | |
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| ***Summary of change:*** | | Functional alias resolution response is included between the MCData server and MCData client similar to what is introduced for MCPTT and MCVideo | | | | | | | | |
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| ***Consequences if not approved:*** | | End-end security cannot be established when functional alias is used as target. | | | | | | | | |
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| ***Clauses affected:*** | | 7.14.2.2.1, 7.14.2.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \* \* \* \*

#### 7.14.2.2 IP connectivity point-to-point MCData transport service

##### 7.14.2.2.1 General

IP connectivity service capabilities enables MCData unaware data hosts to use usual MCData service capabilities, e.g. data communication between them. This subsection describes the establishment of a point-to-point connection between two IP connectivity clients using the media plane for IP Data transmission. The target MCData user may be addressed using the functional alias that can be shared by multiple MCData users.

In order not to violate the point-to-point principle when a functional alias is shared, only two MCData user can participate to a point-to-point IP connectivity session. If the MCData server detects that the functional alias used as the target of the MCData FD request is simultaneously active for multiple MCData users, then the MCData server can proceed by selecting an appropriate MCData ID based on some selection criteria. The selection of an appropriate MCData ID is left to implementation. These selection criteria can include rejection of the IP connectivity request, if no suitable MCData ID is selected.

##### 7.14.2.2.2 Procedure

The procedure in figure 7.14.2.2.2-1 describes the case where an IP connectivity capable MCData client is initiating a point-to-point IP connectivity with another IP connectivity capable MCData client.

Pre-conditions:

- The total data volume limit, e.g. daily time limit or total data volume per day does not restrict the establishment of an IP connectivity IP data exchange.

- MCData clients are linked with individual data hosts.

- MCData clients belong to the same MCData system.

- The data hosts linked with the MCData clients already have an IP address allocated.

- MCData clients have IP connectivity capabilities.

- The linked data hosts are authorized to use the MCData clients to establish an IP connectivity.

NOTE: How the data host is authorized to use the MCData client is out of the scope of the present document.

- The MCData server has subscribed to the MCData functional alias controlling server within the MC system for functional alias activation/de-activation updates.

- MCData client 1 understands the correspondence between the IP addresses of target data hosts and MCData client 2. How this relationship is determined is out of scope of the present document.

- Optionally, the MCData clients may have activated a functional alias to be used.



Figure 7.14.2.2.2-1: Establishment of a point-to-point IP connectivity

1. MCData client 1 has IP Data to send to MCData client 2 and initiates an IP connectivity point-to-point request.

2. MCData client 1 sends a MCData IPcon point-to-point request towards the MCData server. The MCData IPcon point-to-point request contains either the MCData ID of MCData client 2 or its associated functional alias. MCData user at MCData client 1 may include its associated functional alias

3. MCData server checks whether MCData user at MCData client 1 is authorized to send an MCData IPcon point-to-point request and checks if MCData client 2 is authorised to receive the IP connectivity service. If a functional alias is used to address the target MCData user, the MCData server resolves the functional alias to the corresponding MCData ID(s) for which the functional alias is active and proceed with step 4 otherwise proceed with step 6.

4. The MCData server responds back to MCData client 1 with a functional alias resolution response message that contains the resolved MCData ID.

5. If the MCData server replies with a MCData functional alias resolution response message, the MCData client 1 sends a new IP connectivity point-to-point request towards the resolved MCData ID.

6. MCData server initiates the MCData IPcon point-to-point request towards the determined MCData client 2.

NOTE: MCData client 2 corresponds to the MCData user(s) after resolution of the functional alias.

7. MCData client 2 sends a MCData IPcon point-to-point response to the MCData server that contains the information if the request is accepted or the reason of rejection. If accepted, the MCData client 2 may include the data transmission time limit.

8. MCData server forwards the MCData IPcon point-to-point response of MCData client 2 to MCData client 1.

9. The MCData server applies transmission and reception control and the necessary policy to ensure that appropriate data is transmitted between the MCData clients.

10. MCData client 1 and MCData Client 2 have successfully established media plane for data communication and MCData client 1 and MCData client 2 exchange IP Data.

\* \* \* \* \* \* \* END CHANGE \* \* \* \* \* \* \*