**3GPP TSG-SA WG6 Meeting #38-e S6-201075**

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

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

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| ***Title:*** | Functional alias handling for one-one session SDS requests | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 2020-07-13 |
|  |  | | | |  | |  | | |  |
| ***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 session SDS 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:*** | | 7.4.2.4.1, 7.4.2.4.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

#### 7.4.2.4 One-to-one short data service session

##### 7.4.2.4.1 General

A MCData user triggers an establishment of a MCData session with another MCData user for the exchange of SDS data. The target MCData user may be addressed using the functional alias that can be shared with other MCData users.

##### 7.4.2.4.2 Procedure

The procedure in figure 7.4.2.4.2-1 describes the case where an MCData user is initiating data communication session with another MCData user for exchanging at least one SDS data transaction between them, with or without disposition request using MCData-SDS-1 and MCData-SDS-2 or MCData-SDS-3 reference points.

Pre-conditions:

1. MCData users on MCData client 1 and MCData client 2 are already registered for receiving MCData service.

2. Optionally, the MCData client may have activated functional alias to be used.

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



Figure 7.4.2.4.2-1: One-to-one short data service session

1. User at MCData client 1 would like to initiate an SDS data communication session request for the chosen MCData user.

2. MCData client 1 sends a MCData session data request towards the MCData server. The MCData session data request contains one MCData user for one-to-one data communication as selected by the user at MCData client 1. The MCData session data request contains conversation identifier for message thread indication. MCData user at MCData client 1 may include a functional alias within the SDS data transfer and addresses the target MCData client 2 using a functional alias.

a) If the MCData user at the MCData client 1 initiates an MCData emergency short data service communication or MCData emergency state is already set for the MCData client 1 (due to previously triggered MCData emergency alert):

i) The MCData session data request shall contain emergency indicator; and

ii) If MCData emergency state is not set already, MCData client 1 sets its MCData emergency state. The MCData emergency state is retained until explicitly cancelled.

3. MCData server checks whether the MCData user at MCData client 1 is authorized to send MCData session data request. The MCData server also checks whether any policy is to be asserted to limit certain types of message or content to certain members due, for example, to location or user privilege. MCData server determines the eligible MCData user(s) after policy assertion for sending the MCData session data request. MCData server also verifies whether the provided functional alias of MCData client 1, if present, can be used and has been activated for the user. If functional alias is used to address that 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. The MCData server allows only two participating MCData clients for a standalone short data service.

NOTE 1: The MCData server prioritizes the MCData emergency communication over the other MCData communication. How the MCData server prioritizes MCData emergency communication is not in the scope of the present document.

NOTE 2: If the MCData server detects that the functional alias used as the target of the MCData session data 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 SDS data transfer request, if no suitable MCData ID is selected.

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 MCData session data request towards the resolved MCData ID.

6. MCData server initiates the MCData session data request towards the MCData users determined. The MCData session data request towards the MCData user contains the emergency indicator if it is present in the received MCData session data request from MCData client 1.

NOTE 3: MCData client 2 corresponds to the MCData user(s) after resolution of the functional alias.

7. If the emergency indicator is present, the receiving MCData client 2 notifies the user about the incoming MCData session data request.

8. The receiving MCData client 2 accepts the MCData session data request and responds with MCData session data response towards MCData server.

9. MCData server forwards the MCData client 2 accepted response to the MCData user initiating the MCData session data request.

10. and 11. MCData client 1 and MCData client 2 have successfully established media plane for data communication and either MCData client can transmit SDS data. The MCData data request may contain disposition request if indicated by the client sending data. If MCData data disposition was requested by the user, then the receiving MCData client initiates a MCData data disposition notification for delivery, read reports to the disposition requesting user. The MCData data disposition notification from MCData user may be stored by the MCData server for disposition history interrogation from authorized users.

12. and 13. If the payload is for MCData user consumption (e.g. is not application data, is not command instructions, etc.) then the MCData user of MCData client 2 may be notified, otherwise the MCData user of MCData client 2 shall not be notified.

14. After SDS data transaction is complete, the established media plane is released.

\* \* \* End Change \* \* \* \*