**3GPP TSG-SA WG6 Meeting #37-e S6-200716**

**e-meeting, 14th – 26th May 2020 (revision of S6-xxxxxx)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **217** | **rev** |  | **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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Minor editorial corrections | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 2020-05-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **D** |  | | | | | ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Identifed some minor editorial issues | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Fixing the issues which are editorial. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Specification will not be clear. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.4.2.2.2, 7.4.2.3.2, 7.4.2.7.2, 7.5.2.1.21,7.5.2.7.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \* \* \* \*

##### 7.4.2.2.2 Procedure

The procedure in figure 7.4.2.2.2-1 describes the case where an MCData user is initiating one-to-one MCData data communication for sending standalone SDS data to other MCData user, with or without disposition request. Standalone refers to sending unidirectional data in one transaction.

Pre-conditions:

1. The SDS payload data size is below the configured maximum payload data size for SDS over signalling control plane.

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

3. MCData client 1 and MCData client 2 belong to the same MCData system.

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

5. 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 7.4.2.2.2-1: One-to-one standalone short data service using signalling control plane

1. The user at MCData client 1 initiates an SDS data transfer for the chosen MCData user.

2. MCData client 1 sends a MCData standalone data request towards the MCData server. The MCData standalone data request contains conversation identifier for message thread indication. The MCData standalone data request may contain disposition request if indicated by the user at MCData client 1. 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 standalone 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 standalone data request. MCData server verifies whether the provided functional alias of MCData client 1, if present, can be used and has been activated for the user. 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 or affiliation. If functional alias is used to address that target MCData user, the MCData server resolves the MCData IDs of the functional alias. The resulting list contains all associated MCData IDs/MCData users that share this functional alias. The MCData server now checks which MCData users have SDS capabilities and which are authorized to receive SDS. The MCData server allows only two participating MCData clients for a standalone short data service.

NOTE: 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.

4. MCData server initiates the MCData standalone data request towards the MCData user that is the first on the list according to step 3. The MCData standalone data request towards the MCData user contains the emergency indicator if it is present in the received MCData standalone data request from MCData client 1.

5. 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 if the payload is not for MCData user consumption, then the MCData user of MCData client 2 shall not be notified. The action taken when the payload contains application data or command instructions are specific based on the contents of the payload. Payload content received by MCData client 2 which is addressed to a known local non-MCData application that is not yet running shall cause the MCData client 2 to start the local non-MCData application (i.e., remote start application) and shall pass the payload content to the just started application.

6. If the MCData data disposition for delivery was requested by the user at MCData client 1, then the receiving MCData client initiates a MCData data disposition notification for delivery report. The MCData data disposition notification from MCData client may be stored by the MCData server for disposition history interrogation from authorized MCData users.

7. MCData data disposition notification is sent to the disposition requesting user at MCData client 1.

8. If the MCData data disposition for read was requested by the user at MCData client 1, then once the receiving user reads the data, the receiving MCData client 2 initiates a MCData data disposition notification for read report. The MCData data disposition notification from MCData client 2 may be stored by the MCData server for disposition history interrogation from authorized MCData users. 9. MCData data disposition notification is sent to the disposition requesting user at MCData client 1.

\* \* \* \* \* \* \* SECOND CHANGE \* \* \* \* \* \* \*

##### 7.4.2.3.2 Procedure

The procedure in figure 7.4.2.3.2-1 describes the case where an MCData user is initiating one-to-one MCData data communication for sending standalone SDS data to other MCData user, with or without disposition request. Standalone refers to sending unidirectional data in one transaction. The SDS payload data size is assumed to be above the configured maximum payload data size for SDS over signalling control plane.

Pre-conditions:

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

2. MCData client 1 and MCData client 2 belong to the same MCData system.

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

4. 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 7.4.2.3.2-1: One-to-one standalone short data service using media plane

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

2. MCData client 1 sends a MCData standalone session data request towards the MCData server. The MCData standalone session data request contains one MCData user for one-to-one data communication as selected by the user at MCData client 1. The MCData standalone session data request contains conversation identifier for message thread indication. The MCData data request may contain disposition request if indicated by the user at MCData client 1. 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 standalone 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 standalone session data request. MCData server verifies whether the provided functional alias of MCData client 1, if present, can be used and has been activated for the user. 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 standalone session data request. If functional alias is used to address that target MCData user, the MCData server resolves the MCData IDs of the functional alias. The resulting list contains all associated MCData IDs/MCData users that share this functional alias. The MCData server now checks which MCData users have SDS capabilities and which are authorized to receive SDS. The MCData server allows only two participating MCData clients for a standalone short data service. To integrate a possible MCData user from the list to the standalone SDS data service, the MCData server works the list of the MCData user from top to bottom and stops until one of the corresponding MCData users from the list accepts the standalone SDS service.

NOTE: 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.

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

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

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

6. MCData server forwards the MCData client 2 accepted response to the MCData Client 1 initiating the MCData standalone session data request.

7. MCData client 1 and MCData client 2 have successfully established media plane for data communication and the MCData client 1 transmits the SDS data.

8. 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 if the payload is not for MCData user consumption, then the MCData user of MCData client 2 shall not be notified. The action taken when the payload contains application data or command instructions are specific based on the contents of the payload. Payload content received by MCData client 2 which is addressed to a known local non-MCData application that is not yet running shall cause the MCData client 2 to start the local non-MCData application (i.e., remote start application) and shall pass the payload content to the just started application.

9. If the MCData data disposition for delivery was requested by the user at MCData client 1, then the receiving MCData client initiates a MCData data disposition notification for delivery report. The MCData data disposition notification from MCData client 2 may be stored by the MCData server for disposition history interrogation from authorized MCData users.

10. MCData data disposition notification is sent to the disposition requesting user at MCData client 1.

11. If the MCData disposition for read was requested by the user at MCData client 1, then once the receiving user reads the data, the receiving MCData client 2 initiates a MCData disposition notification for read report. The MCData data disposition notification from MCData client 2 may be stored by the MCData server for disposition history interrogation from authorized MCData users.

12. MCData data disposition notification is sent to the disposition requesting user at MCData client 1.

\* \* \* \* \* \* \* THIRD CHANGE \* \* \* \* \* \* \*

##### 7.4.2.7.2 Procedure

The procedure in figure 7.4.2.7.2-1 describes the case where an MCData user is initiating SDS data communication session with an MCData group for exchanging SDS data transactions between the group participants, with or without disposition request, using MCData-SDS-1 and MCData-SDS-2reference points.

Pre-conditions:

1. MCData users on MCData client 1 to n belong to the same group and are already registered for receiving MCData service and affiliated.

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 7.4.2.7.2-1: Group SDS session

1. User at MCData client 1 would like to initiate a SDS group data transfer request to multiple MCData users selecting a pre-configured group (identified by MCData group ID) and optionally particular members from that group.

2. MCData client 1 sends a MCData group data request towards the MCData server. The MCData group data request contains MCData group ID 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.

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

i) the MCData group data request shall contain an emergency indicator;

ii) the MCData group data request shall set an alert indicator if configured to send an MCData emergency alert while initiating an MCData standalone data request for the emergency short data service communication;

iii) if MCData emergency state is not set already, MCData client 1 sets its MCData emergency state. The MCPTT emergency state is retained until explicitly cancelled; and

iv) once an MCData emergency communication has been initiated, the MCData group is considered to be in an in-progress emergency state until cancelled.

If the MCData user at MCData client 1 initiates an MCData imminent peril short data service communication:

i) the MCData group data request shall contain an imminent peril indicator; and

ii) once an MCData imminent peril communication has been initiated, the MCData group is considered to be in an in-progress imminent peril state until cancelled;

2a. If either emergency indicator or imminent peril indicator is present in received MCData group data request, the MCData server implicitly affiliates MCData client 1 to the MCData group if the client is not already affiliated.

3. MCData server checks whether the MCData user at MCData client 1 is authorized to send MCData group data request. The MCData server resolves the MCData group ID to determine the members of that group and their affiliation status, based on the information from the group management server. 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 also verifies whether the provided functional alias, if present, can be used and has been activated for the user.

i) if an emergency indicator is present in the received MCData group data request and if MCData group is not in in-progress emergency state, the MCData group is consider to be in the in-progress emergency state until cancelled;

ii) if an imminent peril indicator is present in the received MCData group data request and if the MCData group is not in the in-progress imminent peril, the MCData group is consider to be in the in-progress imminent peril state until cancelled;

3a. The MCData server configures the priority of the underlying bearers for all participants in the MCData group.

4. MCData server initiates the MCData group data request towards each MCData user determined in Step 3. The MCData group data request towards each MCData client contains:

i) an emergency indicator if it is present in the received MCData group data request from the MCData client 1;

ii) an imminent peril indicator if it is present in the received MCData group data request from the MCData client 1; and

iii) an alert indicator if requested to initiate an emergency alert in the received MCData group data request from MCData client 1;

5. The receiving MCData clients 2 to n optionally notify the user about the incoming MCData session data request.

6. The receiving MCData client 2 to n accept or reject the MCData group data request and the corresponding result is in the MCData group data response towards MCData server.

7. MCData server forwards the MCData group data response received from MCData client 2 to n to the MCData user initiating the MCData session data request.

NOTE: Step 7 can occur at any time following step 4, and prior to step 8 depending on the conditions to proceed with the data transmission.

8. MCData client 1 and the MCData group data request accepted clients 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 the payload is for MCData user consumption (e.g. is not application data, is not command instructions, etc.) then the SDS data receiving MCData users may be notified, otherwise those MCData users shall not be notified.

9. If MCData data disposition was requested by the user, then the SDS data receiving MCData client initiates a MCData data disposition notification for delivery, read reports to the disposition requesting user. The MCData data disposition notification from the receiving MCData clients may be stored by the MCData server for disposition history interrogation from authorized users.

10. Based on the MCData user action or conditions to release, the established media plane for SDS data exchange is released.

\* \* \* \* \* \* \*FOURTH CHANGE \* \* \* \* \* \* \*

##### 7.5.2.1.21 MCData group standalone FD over MBMS request

Table 7.5.2.1.21-1 describes the information flow for the MCData group standalone FD request (in subclause 7.5.2.6.2) sent from the MCData server to another MCData client.

Table 7.5.2.1.21-1: MCData group standalone FD over MBMS request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending file |
| MCData group ID | M | The MCData group ID to which the file is to be sent |
| Conversation Identifier | M | Identifies the conversation |
| Transaction Identifier | M | Identifies the MCData transaction |
| Reply Identifier | O | Identifies the original MCData transaction to which the current transaction is a reply to |
| Disposition indication | O | Indicates whether file download completed reported is expected or not |
| Download indication | M | Indicates mandatory download |
| Content reference | M | URL reference to the content and file metadata information |
| MBMS user service id | M | Id of the MBMS user service delivering the file |
| MBMS content URI | M | URI upon which the content is delivered in the MBMS user service |

\* \* \* \* \* \* \*FIFTH CHANGE \* \* \* \* \* \* \*

##### 7.5.2.7.2 Procedure

The procedure in figure 7.5.2.7.2-1 describes the case where an MCData user is initiating group standalone data communication for sending file to multiple MCData users, with or without download completed report request.

Pre-conditions:

1. The MCData users on the MCData client 1 to n belong to the same group and are already registered for receiving MCData service and affiliated.

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

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



Figure 7.5.2.7.2-1: Group standalone FD using media plane

1. The user at the MCData client 1 initiates a file distribution request to multiple MCData users selecting a pre-configured group (identified by MCData group ID) and optionally particular members from that group.

2. MCData client 1 sends a MCData group standalone FD request towards the MCData server. The MCData group standalone FD request may contain the file metadata information. The MCData group standalone data request contains target recipient(s) as selected by the user at MCData client 1. The MCData group standalone FD request contains conversation identifier for message thread indication. MCData group standalone FD request may contain mandatory download indication. The MCData group standalone FD request may contain download completed report indication if selected by the user at MCData client 1. MCData user at MCData client 1 may include a functional alias within the FD data transfer.

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

i) the MCData group standalone FD request shall contain an emergency indicator;

ii) the MCData group standalone FD request shall set an alert indicator if configured to send an MCData emergency alert while initiating an MCData group standalone FD request for the emergency file distribution service communication;

iii) if the MCData emergency state is not set already, MCData client 1 sets its MCData emergency state. The MCData emergency state is retained until explicitly cancelled; and

iv) once an MCData emergency communication has been initiated, the MCData group is considered to be in an in-progress emergency state until cancelled;

If the MCData user at MCData client 1 initiates an MCData imminent peril file distribution communication:

i) the MCData group standalone FD request shall contain imminent peril indicator; and

ii) once an MCData imminent peril communication has been initiated, the MCData group is considered to be in an in-progress imminent peril state until cancelled.

2a. If either emergency indicator or imminent peril indicator is present in the received MCData group standalone data request, the MCData server implicitly affiliates MCData client 1 to the MCData group if the client is not already affiliated.

3. MCData server checks whether the MCData user at MCData client 1 is authorized to send MCData group standalone FD request. MCData server verifies whether the provided functional alias, if present, can be used and has been activated for the user. The MCData server resolves the MCData group ID to determine the members of that group and their affiliation status, based on the information from the group management server.

i) If an emergency indicator is present in the received MCData group standalone FD request and if the MCData group is not in the in-progress emergency state, the MCData group is consider to be in the in-progress emergency state until cancelled;

ii) If an imminent peril indicator is present in the received MCData group standalone FD request and if the MCData group is not in the in-progress imminent peril state, the MCData group is considered to be in the in-progress imminent peril state until cancelled;

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

5. MCData server initiates the MCData group standalone FD request towards each MCData user determined in step 3. The MCData group standalone data request towards each MCData client contains:

i) an emergency indicator if it is present in the received MCData group standalone FD request from the MCData client 1;

ii) an imminent peril indicator if it is present in the received MCData group standalone FD request from the MCData client 1; and

iii) an alert indicator if requested to initiate an emergency alert in the received MCData group standalone FD request from the MCData client 1.

6. The receiving MCData clients 2 to n notifies the user about the incoming MCData group standalone FD request (including file metadata if present) which may be either accepted or rejected or ignored. If the request includes mandatory download indication in the MCData group standalone FD request an accepted response is assumed.

7. If the target MCData user on MCData clients 2 to n provides a response (accept or reject) to the notification, then the respective MCData client sends the MCData group standalone FD response to the MCData server. MCData client 2 to n automatically sends accepted MCData group standalone FD response when the incoming request included mandatory download indication.

8. MCData server forwards the MCData group standalone FD response to the MCData client 1.

NOTE 1: Step 8 can occur at any time following step 5, and prior to step 9 depending on the conditions to proceed with the file transmission.

9. MCData client 1 and MCData server have successfully established media plane for file transmission and the MCData client 1 transmits the file data.

10. MCData server distributes the file received from MCData client 1 to MCData clients 2 to n over the established media plane. Distribution of file can be via unicast or via MBMS bearer(s). For distribution via MBMS bearer(s), the procedure described in subclause 7.3 Use of MBMS transmission (on-network) is executed. File download report is shared by the receiving MCData clients, if requested by the user at MCData client 1. After file transaction is completed, the media plane is released.

NOTE 2: MCData server is not required to wait for the complete download of file from MCData client 1 prior to initiating file distribution to MCData client 2.

11. The MCData clients successfully receiving the file, records file download completed and notifies MCData user.

12. MCData client 2 initiates a MCData download completed report for reporting file download completed, if requested by the user at MCData client 1.

13. The MCData file download completed report from MCData client(s) may be stored by the MCData server for download history interrogation from the authorized MCData users. The MCData file download completed report from each MCData user may be aggregated.

14. Aggregated or individual MCData file download completed report is sent to the disposition requesting user at MCData client 1.