**3GPP TSG-SA WG6 Meeting #49-bis-e S6-221543Rev1**

**e-meeting, 22nd June – 1st July 2022 (revision of S6-22xxxx)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **2** | **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:*** | MCData communication to a FA user | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | at&t | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh4MCPTT | | | | |  | ***Date:*** | | | June-14-2022 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | In a MCData communication to a FA user, the MCData server will return a target user’s MCData ID, that has activated this FA, to setup end-to-end secured communication. The procedures in clause 7 support this use case. The current procedures are not clear what will happen to the first MCDaa communication request when a new MCData communication request is initiated to the target user’s MCData ID returned by the MCData server. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clarify that when a new MCData communication request is initiated to the target user’s MCData ID returned by the MCData server, the client needs to abandon the first MCData communication request. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | There will be no guidance to stage 3 development on how the first MCData communication request is handled. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.4.2.2.2, 7.4.2.3.2, 7.4.2.4.2, 7.5.2.4.2, 7.5.2.5.2, 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 \* \* \* \*

##### 7.4.2.2.2 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 include additional implementation specific information in the application metadata container. 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 of MCData client 1 is retained until explicitly cancelled by the user of MCData client 1.

NOTE 1: While MCData client 1 is in the emergency state, all types of MCData one-to-one and group communications initiated by MCData client 1 are initiated as MCData emergency communications.

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 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 2: 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 3: If the MCData server detects that the functional alias used as the target of the SDS data transfer 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 assumes the MCData standalone data request in step 2 is rejected and sends a new MCData standalone data request towards the resolved MCData ID.

6. MCData server initiates the MCData standalone data request towards the MCData user that is determined based on 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.

NOTE 4: MCData client 2 does not set its emergency state as a result of receiving the MCData standalone data request containing the emergency indicator.

7. 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.

8. 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.

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

10. 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.

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

\* \* \* Next 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 standalone session data request may include additional implementation specific information in the application metadata container.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 of MCData client 1 is retained until explicitly cancelled by the user of MCData client 1.

NOTE 1: While MCData client 1 is in the emergency state, all types of MCData one-to-one and group communications initiated by MCData client 1 are initiated as MCData emergency communications.

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 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 resulting list contains all associated MCData IDs/MCData users that share this functional alias. The MCData server allows only two participating MCData clients for a standalone short data service.

NOTE 2: 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. The MCData server responds back to MCData client 1 with a functional alias resolution response message that contains the resolved MCData ID.

NOTE 3: If the MCData server detects that the functional alias used as the target of the MCData standalone 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 MCData standalone session data request, if no suitable MCData ID is selected.

5. If the MCData server replies with a MCData functional alias resolution response message, the MCData client 1 abandons the MCData standalone session data request in step 2 and sends a new MCData standalone session data request towards the resolved MCData ID.

6. 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 4: MCData client 2 corresponds to the MCData user(s) after resolution of the functional alias.

NOTE 5: MCData client 2 does not set its emergency state as a result of receiving the MCData standalone session data request containing the emergency indicator.

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

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

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

10. 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.

11. 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.

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

13. 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.

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

\* \* \* Next Change \* \* \* \*

##### 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. The MCData session data request may include additional implementation specific information in the application metadata container. 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 of MCData client is retained until explicitly cancelled by the user of MCData client 1.

NOTE 1: While MCData client 1 is in the emergency state, all types of MCData one-to-one and group communications initiated by MCData client 1 are initiated as MCData emergency communications.

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 2: 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 3: 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 abandons the MCData session data request in step 2 and 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 4: MCData client 2 corresponds to the MCData user(s) after resolution of the functional alias.

NOTE 5: MCData client 2 does not set its emergency state as a result of receiving the MCData session data request containing the emergency indicator.

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.

\* \* \* Next Change \* \* \* \*

##### 7.5.2.4.2 Procedure for single MCData system

The procedure in figure 7.5.2.4.2-1 describes the case where a MCData user is initiating one-to-one data communication for sending file to the other MCData user, with or without download completed report request.

Pre-conditions:

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

2. The file to be distributed is uploaded to media storage function on MCData content server using the procedures defined in subclause 7.5.2.2.

3. The MCData client may have activated functional alias to be used.

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



Figure 7.5.2.4.2-1: One-to-one file distribution using HTTP

1. The user at the MCData client 1 initiates a file distribution request to the chosen MCData user.

2. The MCData client 1 sends a MCData FD request towards the MCData server. The MCData FD request contains content payload in the form of file URL and may contain the file metadata information. The MCData FD request contains one MCData user for one-to-one data communication as selected by the user at MCData client 1. The MCData FD request contains conversation identifier for message thread indication. The MCData FD request may include additional implementation specific information in the application metadata container. If MCData user at MCData client 1 has requested to mandatory download at the recipient side, then MCData FD request contains mandatory download indication. If the MCData user at MCData client has requested to deposit the file content into his/her MCData message store account, then MCData FD request contains deposit file indication set. The MCData FD request may contain download completed report indication if selected by the user at MCData client 1. The MCData user at MCData client 1 may include a functional alias within the FD data transfer and may address the target MCData client 2 using a functional alias.

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

i) The MCData FD 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 of MCData client 1 is retained until explicitly cancelled by the user of MCData client 1.

NOTE 1: While MCData client 1 is in the emergency state, all types of MCData one-to-one and group communications initiated by MCData client 1 are initiated as MCData emergency communications.

3. MCData server checks whether the MCData user at MCData client 1 is authorized to send MCData FD request and that the size of the file is below maximum data size for FD from the service configuration. MCData server 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 IDs for which the functional alias is active and proceed with step 4 otherwise proceed with step 6.

NOTE 2: 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 MCData FD request, if no suitable MCData ID is selected.

4. The MCData server may verify whether the corresponding file is available in the MCData content server (not shown in the figure) via the MCData-FD-5 reference point using the received file URL in the MCData FD request. For that, the MCData server sends an MCData file availability request to the MCData content server. Upon the receipt of the request, the MCData content server provides an MCData file availability response to the MCData server. If the MCData server identifies that the corresponding file is not available in the MCData content server, the MCData server provides a response to the MCData client 1 indicating that the file distribution request cannot proceed due to the unavailability of the file in the MCData content server.

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

6. If the MCData server replies with a MCData functional alias resolution response message, the MCData client 1 assumes the MCData FD request in step 2 is rejected and sends a new MCData FD request towards the resolved MCData ID.

7. MCData server initiates the MCData FD request towards MCData client 2. The MCData FD request towards the MCData user contains an emergency indicator if it is present in the received MCData FD request from MCData client 1. If the deposit file indication information element is set to true in the received MCData FD request, MCData server shall follow the procedure as defined in the subclause 7.13.3.8 with the retrieve file indication element set to true while depositing this MCData communication to the MCData message store account of the user at MCData client 1.

NOTE 3: MCData client 2 does not set its emergency state as a result of receiving the MCData FD request containing the emergency indicator.

8. The receiving MCData client 2 notifies the user about the incoming MCData FD request (including file metadata, if present) which may be either accepted or rejected or ignored.

9. The MCData user 2 may provide a response (accept or reject) or not (ignore) to the notification, then MCData client 2 sends the MCData FD response to the MCData server. The MCData client 2 automatically sends an accepted MCData FD response when the received request includes a mandatory download indication.

10. The MCData server forwards the MCData FD response to the MCData client 1.

11. The Media storage client on the MCData client 2 downloads the file from the MCData content server using the procedures defined in subclause 7.5.2.3, either automatically (for mandatory download) or based upon the MCData user 2 subsequent action. The MCData client 2 records file download completed and notifies the MCData user 2.

12. The MCData client 2 provides an MCData download completed report for reporting file download completed, if requested by the user at MCData client 1.

13. The received MCData file download completed report from the MCData client 2 may be stored by the MCData server for download history interrogation from authorized MCData users. The MCData download completed report is sent by the MCData server to the MCData user at MCData client 1, if requested by the MCData client 1.

\* \* \* Next Change \* \* \* \*

##### 7.5.2.5.2 Procedure

The procedure in figure 7.5.2.5.2-1 describes the case where an MCData user is initiating one-to-one data communication for sending file to the other MCData user, with or without download completed report request.

Pre-conditions:

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

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 7.5.2.5.2-1: One-to-one file distribution using media plane

1. The user at the MCData client 1 initiates a file distribution request to the chosen MCData user.

2. MCData client 1 sends a MCData FD request towards the MCData server. File metadata information is included in the SDP. The MCData FD request contains one MCData user for one-to-one data communication as selected by the user at MCData client 1. The MCData FD request contains conversation identifier for message thread indication. The MCData FD request may include additional implementation specific information in the application metadata container. MCData FD request may contain mandatory download indication. The MCData 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 and may address the target MCData client 2 using a functional alias.

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

i) The MCData FD 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 of MCData client 1 is retained until explicitly cancelled by the user of MCData client 1.

NOTE 1: While MCData client 1 is in the emergency state, all types of MCData one-to-one and group communications initiated by MCData client 1 are initiated as MCData emergency communications.

3. MCData server checks whether the MCData user at MCData client 1 is authorized to send MCData FD 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. 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.

NOTE 2: 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 MCData FD 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 assumes the MCData FD request in step 2 is rejected and sends a new MCData FD request towards the resolved MCData ID.

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

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

NOTE 3: MCData client 2 does not set its emergency state as a result of receiving the MCData FD request containing the emergency indicator.

8. The receiving MCData client 2 notifies the user about the incoming MCData FD request which may be either accepted or rejected or ignored. If the request includes mandatory download indication in the MCData FD request an accepted response is assumed.

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

10. MCData server forwards the MCData FD response from MCData client 2 back to MCData client 1.

11. MCData client 1 distributes the file over the established media plane to MCData server.

12. MCData server distributes the file received from MCData client 1 to MCData client 2 over the established media plane. File download report is shared by the MCData client 2, if requested by the user at MCData client 1. After file transaction is completed, the media plane is released. The MCData client 2 records file download completed and notifies MCData user 2.

NOTE 4: 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.

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

14. The MCData file download completed report from MCData client may be stored by the MCData server for download history interrogation from the authorized MCData users. MCData download completed report is sent by the MCData server to the user at MCData client 1.

##### 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 assumes the MCData IPcon point-to-point request in step 2 is rejected and sends a new MCData IPcon 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.