**3GPP TSG-SA WG6 Meeting #62 S6-243364**

**Maastricht, 19th – 23th August 2024 (revision of S6-243085)**

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

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|  |
| ***Title:***  |  Clarification on Message store |
|  |  |
| ***Source to WG:*** | at&t, Motorola solutions |
| ***Source to TSG:*** | SA6 |
|  |  |
| ***Work item code:*** |  enh4MCPTT |  | ***Date:*** | August 2, 2024 |
|  |  |  |  |  |
| ***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 canbe 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:*** | When an “object” is stored in the Message store, an “Object Identifier” (as a path URL to its resource location) is created by the MCData server to be used for later direct retriveal by the MCData client and this Object ID needs to make available to the MCData client.When a request authorization shall be checked in procedures in 7.13.4.2 and 7.13.5.2 are not correct. |
|  |  |
| ***Summary of change:*** | 1. Add object identifier to the stored message object.
2. Correct the procedures in 7.13.4.2 and 7.13.5.2 when a request shall be checked for authorization.
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|  |  |
| ***Consequences if not approved:*** | Incorrect stage 3 development guidance.  |
|  |  |
| ***Clauses affected:*** | 5.10, 7.13.4.2, 7.13.5, 7.4.2.1.1, 7.5.2.1.5, 7.5.2.1.10 |
|  |  |
|  | **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 \* \* \* \*

## 5.10 MCData message store

MCData message store is used by MCData users to store their MCData communications permanently; it shall provide secured storage area for each authorized MCData user having a user account. The storage area is identified by the MCData user's MCData ID. The MCData message store shall allow an MCData user to access only the storage area that he is authorized to access. A user (i.e. a dispatcher) other than the user account holder shall be able to access the account holder's storage area if authorized.

During an active MCData communication, the participating function on the MCData server of a MCData user participant shall, if the configuration to store the MCData communication is enabled for and if requested by the MCData user, deposit messages and files exchanged in the conversation to the MCData user's storage area in the MCData message store. When depositing the MCData communication into the MCData message store, if no such MCData user account is available on the MCData message store the MCData server shall create the user's account first and then deposit the MCData communications. The MCData message store shall support user account creation and deposit MCData communications operations from the MCData server after successful authentication and authorization. The MCData message store shall support the message store client to retrieve, update, delete, search and synchronize MCData communications stored in the MCData message store, after successful authentication and authorization.

The MCData user shall have an option if he wants to store the MCData communications in the MCData message store or not. Based on the request from MCData user, messages and files exchanged in an active MCData communication shall be stored as objects in the MCData message store. A stored object shall contain the following information:

1. The message or file itself; and

2. Associated metadata, consisting of:

a. information retrieved from the information elements of the message or file, such as MCData IDs, Conversation identifier etc.; and

b. other information, such as object identifier, content type (message or file), status ("seen", "received by", "read by ", "downloaded by " etc).

If a file is distributed indirectly with a URL in a message, when this message is stored in the MCData user's account in the MCData message store, it could be stored as:

1. an object as the original message with the URL; or

2. an object as the message with a revised URL that the URL indicates where the file, retrieved from the MCData content server, is stored separately in the MCData user's storage account. With proper security and authorization, this URL can be accessible by other network entities such as the MCData content server.

NOTE: It is the decision of SA3 on the mechanism to store an encrypted message or file in the MCData message store.

When a MCData user logs onto a UE with successful authentication and authorization and obtains the user service profile, the message store client on the UE shall synchronize with the user's account on the MCData message store, either automatically or manually (i.e. interacts with the user on which option to synchronize or no synchronization at all), before any MCData service starts.

\* \* \* \* Next change \* \* \* \*

#### 7.13.4.2 Procedure

The procedure in figure 7.13.4.2-1 describes the generic SDS service where MCData message store is supported.

Pre-conditions:

1. MCData user has an account created with MCData message store.

2. The configuration to store the MCData communication in MCData message store is enabled for the MCData user.

3. MCData user has requested to store his MCData communication.



Figure 7.13.4.2-1 Generic outgoing SDS procedure with MCData message store

1. MCData client initiates an MCData SDS service request; this service request can be a private or group communication.

2. MCData server checks and authorizes the service request and if authorized stores the communication as an object to the MCData user account in the MCData message store.

3. MCData server continues the service request toward the targeted recipient(s) as described in subclause 7.4.2.

\* \* \* \* Next change \* \* \* \*

### 7.13.5 Generic incoming SDS procedure with MCData message store

#### 7.13.5.1 General

When a MCData user is supported with MCData message store all his incoming communications shall be stored in his account in the MCData message store when he has requested. This generic SDS procedure applies to all procedures in subclause 7.4.2 when the MCData user requests to store the MCData communication.

#### 7.13.5.2 Procedure

The procedure in figure 7.13.5.2-1 describes the generic SDS service where MCData message store is supported.

Pre-conditions:

1. MCData user has an account created with MCData message store.

3. The configuration to store the MCData communication in MCData message store is enabled for the MCData user.

3. MCData user has requested to store his MCData communication.



Figure 7.13.5.2-1 Generic incoming SDS procedure with MCData message store

1. The MCData server receives an incoming MCData SDS service request for the MCData user. This service request can be a response to an earlier service request sent by the MCData user or a new service request coming from any sender.

2. MCData server checks and authorizes the service request and if authorized stores the communication as an object to the MCData user account in the MCData message store.

3. MCData server delivers the service request to MCData user as described in subclause 7.4.2.

\* \* \* \* Next change \* \* \* \*

##### 7.4.2.1.1 MCData standalone data request

Table 7.4.2.1.1-1 describes the information flow for the MCData standalone data request sent from the MCData client to the MCData server and from the MCData server to another MCData client.

Table 7.4.2.1.1-1: MCData standalone data request (MCData client to MCData server)

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending data |
| Functional alias | O | The associated functional alias of the MCData user sending data. |
| MCData ID (see NOTE 1) | O | The identity of the MCData user towards which the data is sent |
| Functional alias (see NOTE 1) | O | The associated functional alias of the MCData user identity towards which the data is 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 |
| Emergency indicator | O | Indicates that the data request is for MCData emergency communication |
| Disposition Type | O | Indicates the disposition type expected from the receiver (i.e., delivered or read or both) |
| Payload Destination Type | M | Indicates whether the payload is for application consumption or MCData user consumption |
| Location | O | Location of the Originating MCData user sending the SDS message |
| Application identifier (see NOTE 2) | O | Identifies the application for which the payload is intended (e.g. text string, port address, URI) |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Payload | M | SDS content |
| NOTE 1: Either the MCData ID or the functional alias must be present.NOTE 2: The application identifier shall be included only if the payload destination type indicates that the payload is for application consumption. |

Table 7.4.2.1.1-2: MCData standalone data request (MCData server to MCData client)

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending data |
| MCData ID | M | The identity of the MCData user towards which the data is 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 |
| Emergency indicator | O | Indicates that the data request is for MCData emergency communication |
| Disposition Type | O | Indicates the disposition type expected from the receiver (i.e., delivered or read or both) |
| Payload Destination Type | M | Indicates whether the payload is for application consumption or MCData client consumption |
| Location | O | Location of the Originating MCData user sending the SDS message |
| Application identifier (see NOTE) | O | Identifies the application for which the payload is intended (e.g. text string, port address, URI) |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Payload | M | SDS content |
| Object Identifier | O | If the message is stored in the Message Store of the user account, the object identifier generated by the Message Store is communicated to the MCData client to use to retrieve this particular message in the Message Store. |
| NOTE: The application identifier shall be included only if the payload destination type indicates that the payload is for application consumption. |

\* \* \* \* Next change \* \* \* \*

##### 7.5.2.1.5 MCData FD request (using HTTP)

Table 7.5.2.1.5-1 describes the information flow for the MCData FD request (in subclause 7.5.2.4.2) sent from the MCData client to the MCData server.

Table 7.5.2.1.5-1: MCData FD request (using HTTP) from MCData client to MCData server

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending the file |
| Functional alias | O | The functional alias associated with MCData user sending the file |
| MCData ID (see NOTE) | O | The identity of the MCData user receiving the file |
| Functional alias (see NOTE) | O | The associated functional alias of the MCData user identity towards which the data is 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 report is expected or not |
| Download indication | O | Indicates mandatory download |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Content reference | M | URL reference to the content and file metadata information |
| Emergency indicator | O | Indicates that the data request is for MCData emergency communication |
| Deposit file indication | O | Indicates whether the file to be stored into the MCData message store account of the MCData user |
| Location Information | O | Location Information of the Originating MCData user sending the FD message |
| NOTE: Either the MCData ID or the functional alias must be present. |

Table 7.5.2.1.5-2 describes the information flow for the MCData FD request (in clause 7.5.2.4.2) sent from an MCData server to a partner MCData server.

Table 7.5.2.1.5-2: MCData FD request (using HTTP) from an MCData server to MCData server

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending the file |
| Functional alias | O | The associated functional alias of the MCData user identity sending the file |
| MCData ID | M | The identity of the MCData user receiving the file |
| Functional alias | O | The associated functional alias of the MCData user identity towards which the data is 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 report is expected or not |
| Download indication | O | Indicates mandatory download |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Content reference | M | URL reference to the content and file metadata information |
| Emergency indicator  | O | Indicates that the data request is for MCData emergency communication |
| Location Information | O | Location information of the Originating MCData user sending the FD message |

Table 7.5.2.1.5-3 describes the information flow for the MCData FD request (in clause 7.5.2.4.2) sent from the MCData server to the MCData client.

Table 7.5.2.1.5-3: MCData FD request (using HTTP) from MCData server to MCData client

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending the file |
| Functional alias | O | The associated functional alias of the MCData user sending the file |
| MCData ID | M | The identity of the MCData user receiving the file |
| 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 report is expected or not |
| Download indication | O | Indicates mandatory download |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Content reference | M | URL reference to the content and file metadata information |
| Emergency indicator  | O | Indicates that the data request is for MCData emergency communication |
| Location Information | O | Location information of the Originating MCData user sending the FD message |
| Object Identifier | O | If the message is stored in the Message Store of the user account, the object identifier generated by the Message Store is communicated to the MCData client to use to retrieve this particular message in the Message Store. |

\* \* \* \* Next change \* \* \* \*

##### 7.5.2.1.10 MCData group standalone FD request (using HTTP)

Table 7.5.2.1.10-1 describes the information flow for the MCData group standalone FD request (in subclause 7.5.2.6.2) sent from the MCData client to the MCData server.

Table 7.5.2.1.10-1: MCData group standalone FD request (using HTTP) from MCData client to MCData server

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending the file |
| Functional alias | O | The functional alias associated with MCData user sending the 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 report is expected or not |
| Download indication | O | Indicates mandatory download |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Content reference | M | URL reference to the content and file metadata information |
| Emergency indicator (see NOTE 1) | O | Indicates that the data request is for MCData emergency communication |
| Alert indicator (see NOTE 2) | O | Indicates whether an emergency alert is to be sent |
| Imminent peril indicator (see NOTE 1) | O | Indicates that the data request is for MCData imminent peril communication |
| NOTE 1: If used, only one of these information elements shall be present.NOTE 2: This information element may be present only when Emergency indicator is present. |

Table 7.5.2.1.10-2 describes the information flow for the MCData group standalone FD request (in subclause 7.5.2.6.2) sent from the MCData server to the MCData client.

Table 7.5.2.1.10-2: MCData group standalone FD request (using HTTP) from MCData server to MCData client

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCData ID | M | The identity of the MCData user sending the file |
| Functional alias | O | The functional alias associated with MCData user sending the file |
| MCData group ID | M | The MCData group ID to which the file is to be sent |
| MCData ID | M | The identity of the MCData user receiving the file |
| 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 report is expected or not |
| Download indication | O | Indicates mandatory download |
| Application metadata container | O | Implementation specific information that is communicated to the recipient |
| Content reference | M | URL reference to the content and file metadata information |
| Emergency indicator (see NOTE 1) | O | Indicates that the data request is for MCData emergency communication |
| Alert indicator (see NOTE 2) | O | Indicates whether an emergency alert is to be sent |
| Imminent peril indicator (see NOTE 1) | O | Indicates that the data request is for MCData imminent peril communication |
| Object Identifier | O | If the message is stored in the Message Store of the user account, the object identifier generated by the Message Store is communicated to the MCData client to use to retrieve this particular message in the Message Store. |
| NOTE 1: If used, only one of these information elements shall be present.NOTE 2: This information element may be present only when Emergency indicator is present. |