**3GPP TSG-CT WG1 Meeting #133-eC1-21abcd**

**E-meeting, 11-19 November 2021 *was* C1-217037**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.282** | **CR** | **0272** | **rev** | **1** | **Current version:** | **17.4.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | User control of communications storage into message store | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 04-11-2021 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Stage 2 requirements on storing of MCData user communications into MCData message store has a pre-condition that MCData user has to request to store his MCData communication. Furthermore, the stage 2 has requirement that “The MCData user shall have an option if he wants to store the MCData communications in the MCData message store or not” .  The corresponding requirements in stage 2 are in   * “5.10 MCData message store”, * “7.13.4 Generic outgoing SDS procedure with MCData message store” and * “7.13.5 Generic incoming SDS procedure with MCData message store”.   Stage-3 has partially implemented message store related functionalities. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The proposed CR is to implement the stage 2 requirements as specified above with below implementation details.   * A new section (21.X) is introduced to cover the procedures for originating MCData clients and participating MCData functions to handle the controlling of communications storage information into message store when the MCData server tries to deposit the communication information. * A new XML schema is defined to carry the list of MCData IDs and MCData Group IDs for which the control to enable or disable is applied. * A new request is defined to identiy the intended processing of the request and route it appropriately. * New warning texts are defined to provide an appropriate error information. * The MCData info xml file is extended to include the new parameters related to the controlling of the storage. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The user will not have any control on storing of his/her communications into message store. Also, the stage 3 specification will be incomplete in specifying the message store functionalities for the MCData user as per the stage 2 requirements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.3.1.1, 4.9.2, 21.X (new), 21.X.1 (new), 21.X.2 (new), 21.X.2.1 (new), 21.X.2.2 (new), 21.X.2.3 (new), 21.X.3 (new), 21.X.3.1 (new), 21.X.3.2 (new), D.1.2, D.1.3, D.X (new), D.X.1 (new), D.X.2 (new), D.X.3 (new) and D.X.4 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \* \* \*

### 4.9.2 Warning texts

The text string included in a Warning header field consists of an explanatory text preceded by a 3-digit text code, according to the following format in Table 4.9.2-1.

Table 4.9.2-1 ABNF for the Warning text

warn-text =/ DQUOTE mcdata-warn-code SP mcdata-warn-text DQUOTE

mcdata-warn-code = DIGIT DIGIT DIGIT

mcdata-warn-text = \*( qdtext | quoted-pair )

Table 4. 9.2-2 defines the warning texts that are defined for the Warning header field when a Warning header field is included in a response to a SIP INVITE request as specified in subclause 4.9.1.

Table 4.9.2-2: Warning texts defined for the Warning header field

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Code | | Explanatory text | | Description | |
| 101 | | service authorisation failed | | The service authorisation of the MCData ID against the IMPU failed at the MCData server. | |
| 102 | | too many simultaneous affiliations | | The MCData user already has N2 maximum number of simultaneous affiliations. | |
| 104 | | isfocus not assigned | | A controlling MCData function has not been assigned to the MCData session. | |
| 110 | | user declined the call invitation | | The MCData user declined to accept the call for the file distribuition. | |
| 113 | | group document does not exist | | The group document requested from the group management server does not exist. | |
| 114 | | unable to retrieve group document | | The group document exists on the group management server but the MCData server was unable to retrieve it. | |
| 115 | | group is disabled | | The group has the <disabled> element set to "true" in the group management server. | |
| 116 | | user is not part of the MCData group | | The group exists on the group management server but the requesting user is not part of this group. | |
| 120 | | user is not affiliated to this group | | The MCData user is not affiliated to the group. | |
| 136 | | authentication of the MIKEY-SAKKE I\_MESSAGE failed | | Security context establishment failed. | |
| 139 | | integrity protection check failed | | The integrity protection of an XML MIME body failed. | |
| 140 | | unable to decrypt XML content | | The XML content cannot be decrypted. | |
| 141 | | user unknown to the participating function | | The participating function is unable to associate the public user identity with an MCData ID. | |
| 142 | | unable to determine the controlling function | | The participating function is unable to determine the controlling function for the group call or private call. | |
| 145 | | unable to determine called party | | The participating function was unable to determine the called party from the information received in the SIP request. | |
| 148 | | group is regrouped | | The group hosted by a non-controlling function is part of a temporary group session as the result of the group regroup function. | |
| 149 | | SIP-INFO request pending | | The MCData client needs to wait for a SIP-INFO request with specific content, before taking further action. | |
| 150 | | invalid combinations of data received in MIME body | | The MCData client included invalid combinations of data in the SIP request. | |
| 160 | | user not authorised to request creation of a regroup | | The user is not authorised to request creation of a regroup. | |
| 161 | | user not authorised to request removal of a regroup | | The user is not authorised to request removal of a regroup. | |
| 162 | | group call abandoned due to required group members not affiliated | | The group call was abandoned as the required number of affiliated group members is not met or some required members are not affiliated. | |
| 163 | | the group identity indicated in the request does not exist | | The server determines that the group identity indicates a user or group regroup based on a preconfigured group that does not exist. | |
| 165 | | group ID for regroup already in use | | The group ID proposed by the client for the user/group regroup based on a preconfigured group is already in use. | |
| 167 | | call is not allowed on the preconfigured group | | Calls are not allowed on this group that is administratively designated for preconfigured group use only. | |
| 168 | | alert is not allowed on the preconfigured group | | Alerts are not allowed on this group that is administratively designated for preconfigured group use only. | |
| 198 | | no users are affiliated to this group | | No users in the group are affiliated. | |
| 199 | | expected MIME bodies not in the request" | | The expected MIME bodies were not received in the SIP request. | |
| 200 | | user not authorised to transmit data | | The MCData user is not authorised to transmit data. | |
| 201 | | user not authorised to transmit data on this group identity | | The MCData user is not authorised to transmit data on the group identity included in the request. | |
| 202 | | user not authorised for one-to-one MCData communications due to exceeding the maximum amount of data that can be sent in a single request | | The MCData user is not authorised for one-to-one MCData communications due to exceeding the maximum amount of data that can be sent in a single request | |
| 203 | | message too large to send over signalling control plane | | The MCData client sent data that is greater than the size that can be handled by the signalling control plane. | |
| 204 | | unable to determine targeted user for one-to-one SDS | | The MCData server is unable to determine the targeted user for one-to-one SDS. | |
| 205 | | unable to determine targeted user for one-to-one FD | | The MCData server is unable to determine the targeted user for one-to-one FD. | |
| 206 | | short data service not allowed for this group | | SDS is not allowed on the group indicated in the SDS request. | |
| 207 | | SDS services not supported for this group | | SDS services not supported for this group | |
| 208 | | user not authorised for MCData communications on this group identity due to exceeding the maximum amount of data that can be sent in a single request | | The MCData user is not authorised for group MCData communications due to exceeding the maximum amount of data that can be sent in a single request. | |
| 209 | | one FD SIGNALLING PAYLOAD or FD HTTP TERMINATION message only must be present in FD request | | Only one FD SIGNALLING PAYLOAD or FD HTTP TERMINATION message must be present in FD request | |
| 210 | | Only one File URL must be present in the FD request | | Only one File URL must be present in the FD request. | |
| 211 | | payload for an FD request is not FILEURL | | The payload in the FD request did not contain a FILEURL | |
| 212 | | file referenced by file URL does not exist | | The MCData server was unable to locate the file referenced by the file URL. | |
| 213 | | file distribution not allowed for this group | | FD is not allowed on the group indicated in the FD request. | |
| 214 | | FD services not supported for this group | | FD services not supported for this group | |
| 215 | | request to transmit is queued by the server | | The MCData request was queued by the server for later transmission. | |
| 216 | | unable to correlate the disposition notification | | The MCData server was unable to correlate the disposition notification to a MCData message. | |
| 217 | | user not authorised for SDS communications on this group identity due to message size | | The size of the message exceeded the maximum data allowed for SDS communications on this group identity | |
| 218 | | user not authorised for one-to-one SDS communications due to message size | | The size of the message exceeded the maximum data allowed for one-to-one SDS communications. | |
| 219 | | user not authorised for FD communications on this group identity due to file size | | The size of the file exceeded the maximum data allowed for FD communications on this group identity | |
| 220 | | user not authorised for FD communications due to file size | | The size of the file exceeded the maximum data allowed for one-to-one FD communications. | |
| 221 | | user not authorised to initiate one-to-one SDS session | | The MCData user is not authorised to initiate a one-to-one SDS session. | |
| 222 | | user not authorised to initiate group SDS session on this group identity | | The MCData user is not authorised to initiate a SDS session on the group identity included in the request. | |
| 223 | | No Conversation ID or Message ID present | | Conversation ID and Message ID required to identify transmission | |
| 224 | | No Transmission available | | No transmission identified with given Conversation ID, Message Id and file URL | |
| 225 | | User not authorized to initiate pre-established session | | The MCData user is not authorised to initiate a pre-established MCData session. | |
| 226 | | function not allowed due to pre-established session not supported | | Pre-established session is not supported by MCData participating function | |
| 227 | | unable to determine targeted user for one-to-one IP Connectivity | | The MCData server is unable to determine the targeted user for one-to-one IP Connectivity. | |
| 228 | | maximum number of service authorizations reached | | The number of maximum simultaneous service authorizations for the MCData user has been reached. | |
| 229 | | one-to-one MCData communication not authorised to the targeted user | | The user is not authorised to initiate one-to-one MCData communication to this targeted user. | |
| 230 | | one-to-one MCData communication not authorised from this originating user | | The user is not authorised to receive one-to-one MCData communication from this originating user. | |
| 231 | | user deferred the call invitation | | The MCData user deferred the call invitation for the file distribuition. | |
| 232 | | communication is stored for later delivery | | The participating MCData function stores the communication for later delivery if the receiving MCData user is not available at the time of data delivery or the network is congested or the request is deferred by the MCData user. If the communication is for file distribution then the file content is also stored. | |
| xyz | | user not authorized to enable or disable the storage of MCData communications into the MCData message store | | The function is not allowed to this user. | |
| abc | | unable to determine target user or group for enabling or disabling the storage of MCData communications into the MCData message store | | The MCData server is unable to determine the targeted user or group for enabling or disabling the storage of MCData communications | |

\* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \*

#### 6.3.1.1 SIP MESSAGE request

Editor’s note: In the current release, support for emergency groups and emergency group communications (in particular the use of the <emergency-ind> element) may be absent, partial or limited, namely only provided to the extent of facilitating emergency alert functionality.

The MCData server needs to distinguish between the following SIP MESSAGE request for originations and terminations:

- SIP MESSAGE requests routed to the participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [5] with the Request-URI set to the MBMS public service identity of the participating MCData function. Such requests are known as "SIP MESSAGE request for an MBMS listening status update";

- SIP MESSAGE request routed to the participating MCData function containing a Content-Type header field set to "application/vnd.3gpp.mcdata-location-info+xml" and includes an XML body containing a Location root element containing a Report element. Such requests are known as "SIP MESSAGE request for location reporting";

- SIP MESSAGE request routed to the MCData client containing a Content-Type header field set to "application/vnd.3gpp.mcdata-location-info+xml" and includes an XML body containing a Location root element containing a Configuration element. Such requests are known as "SIP MESSAGE request for location report configuration";

- SIP MESSAGE request routed to the MCData client containing a Content-Type header field set to "application/vnd.3gpp.mcdata-location-info+xml" and includes an XML body containing a Location root element containing a Request element. Such requests are known as "SIP MESSAGE request for location report request";

- SIP MESSAGE request routed to the originating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds" in a P-Asserted-Service header field. Such requests are known as "SIP MESSAGE request for standalone SDS for originating participating MCData function";

- SIP MESSAGE request routed to the originating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-info+xml MIME body containing a <request-type> element containing the value "msf-disc-req". Such requests are known as "SIP MESSAGE request for absolute URI discovery request for participating MCData function";

- SIP MESSAGE request routed to the terminating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-info+xml MIME body containing a <request-type> element containing the value "msf-disc-res". Such requests are known as "SIP MESSAGE request for absolute URI discovery response for participating MCData function";

- SIP MESSAGE request routed to the controlling MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-info+xml MIME body containing a <request-type> element containing the value "msf-disc-req". Such requests are known as "SIP MESSAGE request for absolute URI discovery request for controlling MCData function";

- SIP MESSAGE request routed to the originating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field. Such requests are known as "SIP MESSAGE request for FD using HTTP for originating participating MCData function";

- SIP MESSAGE request routed to the terminating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-signalling MIME body containing an FD NETWORK NOTIFICATION message. Such requests are known as "SIP MESSAGE network notification for FD using HTTP for terminating participating MCData function";

- SIP MESSAGE request routed to the terminating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds" in a P-Asserted-Service header field. Such requests are known as "SIP MESSAGE request for standalone SDS for terminating participating MCData function";

- SIP MESSAGE request routed to the terminating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field. Such requests are known as "SIP MESSAGE request for FD using HTTP for terminating participating MCData function";

- SIP MESSAGE request routed to an MCData server with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds", an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-signalling MIME body containing an SDS NOTIFICATION message Such requests are known as "SIP MESSAGE request for SDS disposition notification for MCData server";

- SIP MESSAGE request routed to an MCData server with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-signalling MIME body containing an FD NOTIFICATION message. Such requests are known as "SIP MESSAGE request for FD disposition notification for MCData server";

- SIP MESSAGE request routed to the controlling MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.sds" in a P-Asserted-Service header field. Such requests are known as "SIP MESSAGE request for standalone SDS for controlling MCData function";

- SIP MESSAGE request routed to the controlling MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field. Such requests are known as "SIP MESSAGE request for FD using HTTP for controlling MCData function";

- SIP MESSAGE requests routed to the controlling MCData function with the Request-URI set to the public service identity of the controlling MCData function and containing a Content-Type header field set to "application/vnd.3gpp.mcdata-info+xml" and including an XML body containing a <mcdatainfo> root element containing a <mcdata-Params> element containing an <emergency-ind> element or an <alert-ind> element. Such requests are known as "SIP MESSAGE requests for emergency notification for controlling MCData function";

- SIP MESSAGE requests routed to the originating participating MCData function with the Request-URI set to the public service identity of the participating MCData function and containing a Content-Type header field set to "application/vnd.3gpp.mcdata-info+xml" and including an XML body containing a <mcdatainfo> root element containing a <mcdata-Params> element containing an <emergency-ind> element or an <alert-ind> element. Such requests are known as "SIP MESSAGE requests for emergency notification for originating participating MCData function";

- SIP MESSAGE requests routed to the terminating participating MCData function with the Request-URI set to the public service identity of the terminating participating MCData function and containing a Content-Type header field set to "application/vnd.3gpp.mcdata-info+xml" and including an XML body containing a <mcdatainfo> root element containing a <mcdata-Params> element containing an <emergency-ind> element or an <alert-ind> element. Such requests are known as "SIP MESSAGE requests for emergency notification for terminating participating MCData function";

- SIP MESSAGE requests routed to the terminating participating MCData function with the Request-URI set to the public service identity of the terminating participating MCData function and containing an "application/vnd.3gpp.mcdata-info+xml" MIME body with an <alert-ind-rcvd> element present. Such requests are known as "SIP MESSAGE requests indicating delivery of emergency notification";

- SIP MESSAGE request routed to the terminating participating MCData function with an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd", and an ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata.fd" in a P-Asserted-Service header field, and with an application/vnd.3gpp.mcdata-signalling MIME body containing an DEFERRED DATA REQUEST message. Such requests are known as "SIP MESSAGE request for list of deferred group communications"

- SIP MESSAGE requests routed to the originating participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the originating participating MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create", and a non-empty <groups-for-regroup> element. Such requests are known as "SIP MESSAGE request to the originating participating MCData function to request creation of a group regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the originating participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the originating participating MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create", and a non-empty <users-for-regroup> element. Such requests are known as "SIP MESSAGE request to the originating participating MCData function to request creation of a user regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the originating participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the originating participating MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body and a <regroup-action> element set to "remove". Such requests are known as "SIP MESSAGE request to the originating participating MCData function to remove a regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the terminating participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the termination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the participating MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create", and a non-empty <groups-for-regroup> element. Such requests are known as "SIP MESSAGE request to the terminating participating MCData function to create a group regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the terminating participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the termination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the terminating participating MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create"and a non-empty <users-for-regroup> element. Such requests are known as "SIP MESSAGE request to the terminating participating MCData function to create a user regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the terminating participating MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the termination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the terminating participating MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-info+xml MIME body and a <regroup-action> element set to "remove". Such requests are known as "SIP MESSAGE request to the terminating participating MCData function to remove a regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the controlling MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the controlling MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create", and a non-empty <groups-for-regroup> element. Such requests are known as "SIP MESSAGE request to the controlling MCData function to request creation of a group regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the controlling MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the controlling MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create", and a non-empty <users-for-regroup> element. Such requests are known as "SIP MESSAGE request to the controlling MCData function to request creation of a user regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the controlling MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the controlling MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup +xml MIME body and a <regroup-action> element set to "remove". Such requests are known as "SIP MESSAGE request to the controlling MCData function to remove a regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to a non-controlling MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the non-controlling MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body, a <regroup-action> element set to "create", and a non-empty <groups-for-regroup> element. Such requests are known as "SIP MESSAGE request to a non-controlling MCData function to request creation of a group regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the non-controlling MCData function as a result of processing initial filter criteria at the S-CSCF in accordance with the origination procedures as specified in 3GPP TS 24.229 [4] and the Request-URI is set to a public service identity of the non-controlling MCData function that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body and a <regroup-action> element set to "remove". Such requests are known as "SIP MESSAGE request to the non-controlling MCData function to remove a group regroup using preconfigured group" in the procedures in the present document;

- SIP MESSAGE requests routed to the participating MCData function as a result of initial filter criteria with the Request-URI set to the public service identity of the participating MCData function and containing a Content-Type header field set to "application/vnd.3gpp.mcdata-info+xml" and including an XML body containing a <mcdatainfo> root element containing a <mcdata-Params> element containing an <anyExt> element with the <request-type> element set to a value of "store-comms-in-msgstore-ctrl-req". Such requests are known as "SIP MESSAGE request for controlling the storage of the MCData communications into MCData message store".

If a SIP MESSAGE request is received at an MCData server that is not in accordance with the SIP MESSAGE requests listed above, then the MCData server shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response.

\* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \*

## 21.X Control of communications storage procedures

### 21.X.1 General

This clause describes the MCData user control of communications storage into message store procedures for on-network.

The control of communications storage procedures provides an option for the MCData user to store the MCData communications in the MCData message store. The MCData user(s) is configured with two levels of configurations to control the storage.

1) The user profile is configured with two levels of configuration parameters to control the storage of MCData communications in the message store:

a) The user profile allows control of storage of MCData communications in the message store or not.

b) If the storage of MCData communication is allowed, the user profile allow control of storage of private communication and group communication separately.

2) During the communication, if the communication is enabled to be stored in the message store (as stated in 1 above) the user will have the choice to decide if the communication will be stored in the message store. So the user has the total control if a communication will be stored or not.

The procedures for originating MCData clients and participating MCData functions are specified in clause 21.X.

### 21.X.2 MCData Client procedures

#### 21.X.2.1 General

On request from MCData user at MCData client, a request to control (i.e. to enable or disable) the storage of MCData communication into the MCData message store is initiated to the participating MCData function.

#### 21.X.2.2 Enable communications storage into message store procedures.

Upon receiving a request from the MCData user to send a request to control (i.e., enable) the storage of MCData communications request, if the <allow-store-comms-in-msgstore> element of the <ruleset> element is not present in the MCData user profile document (see the MCData user profile document in 3GPP TS 24.484 [12]) or is set to a value of "false", the MCData client shall inform the MCData user and shall exit this procedure.

Upon receiving a request from the MCData user to send a request to enable the storage of MCData communications for private and/or group, the MCData client shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] with the clarifications given below.

The MCData client:

1) shall include a Request-URI set to the public service identity identifying the originating participating MCData function serving the MCData user;

2) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata" (coded as specified in 3GPP TS 24.229 [5]), in a P-Preferred-Service header field according to IETF RFC 6050 [7];

3) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [8];

4) may include a P-Preferred-Identity header field in the SIP MESSAGE request containing a public user identity as specified in 3GPP TS 24.229 [5];

5) shall include an application/vnd.3gpp.mcdata-info+xml MIME body as specified in clause D.1 with the <mcdatainfo> element containing the <mcdata-Params> element with:

a) the <request-type> element set to a value of "store-comms-in-msgstore-ctrl-req";

b) if user want to store all the authorized MCData private communications, and if requested to store the communications, shall include <store-all-private-comms-in-msgstore> element set to a value of "true". Otherwise, if user want to store the list of MCData private communications, and if requested to store the communications, shall include <store-specific-private-comms-in-msgstore> element set to a value of "enable";

c) if user want to store all the authorized MCData group communications, and if requested to store the communications, shall include <store-all-group-comms-in-msgstore> element set to a value of "true". Otherwise, if user want to store the list of MCData group communications, and if requested to store the communications, shall include <store-specific-group-comms-in-msgstore> element set to a value of "enable";

d) the <mcdata-client-id> element set to the MCData client ID of the originating MCData client; and

e) if the MCData client needs to include an active functional alias in the SIP MESSAGE request, the <functional-alias-URI> set to the URI of the used functional alias;

6) if the <store-specific-private-comms-in-msgstore> or the <store-specific-group-comms-in-msgstore> element is included in an application/vnd.3gpp.mcdata-info+xml MIME body, shall include an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body as specified in clause D.X with the <msgstore-ctrl-command-list> element containing:

a) if the <store-specific-private-comms-in-msgstore> element set to a value of "enable", may include zero or more <private> elements of <enable> element containing a MCData ID of the MCData user; and

b) if the <store-specific-group-comms-in-msgstore> element set to a value of "enable", may include zero or more <group> elements of <enable> element containing a MCData Group ID; and

7) shall send the SIP MESSAGE request according to rules and procedures of 3GPP TS 24.229 [5].

#### 21.X.2.3 Disable communications storage into message store procedures.

Upon receiving a request from the MCData user to send a request to control (i.e., disable) the storage of MCData communications request, if the <allow-store-comms-in-msgstore> element of the <ruleset> element is not present in the MCData user profile document (see the MCData user profile document in 3GPP TS 24.484 [12]) or is set to a value of "false", the MCData client shall inform the MCData user and shall exit this procedure.

Upon receiving a request from the MCData user to send a request to disable the storage of MCData communications for private and/or group, the MCData client shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] with the clarifications given below.

The MCData client:

1) shall include a Request-URI set to the public service identity identifying the originating participating MCData function serving the MCData user;

2) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcdata" (coded as specified in 3GPP TS 24.229 [5]), in a P-Preferred-Service header field according to IETF RFC 6050 [7];

3) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcdata" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [8];

4) may include a P-Preferred-Identity header field in the SIP MESSAGE request containing a public user identity as specified in 3GPP TS 24.229 [5];

5) shall include an application/vnd.3gpp.mcdata-info+xml MIME body as specified in clause D.1 with the <mcdatainfo> element containing the <mcdata-Params> element with:

a) the <request-type> element set to a value of "store-comms-in-msgstore-ctrl-req";

b) if user do not want to store all the authorized MCData private communications, and if requested not to store the communications, shall include <store-all-private-comms-in-msgstore> element set to a value of "false". Otherwise, if user do not want to store the list of MCData private communications, and if requested not to store the communications, shall include <store-specific-private-comms-in-msgstore> element set to a value of "disable";

c) if user do not want to store all the authorized MCData group communications, and if requested not to store the communications, shall include <store-all-group-comms-in-msgstore> element set to a value of "false". Otherwise, if user do not want to store the list of MCData group communications, and if requested not to store the communications, shall include <store-specific-group-comms-in-msgstore> element set to a value of "disable";

d) the <mcdata-client-id> element set to the MCData client ID of the originating MCData client; and

e) if the MCData client needs to include an active functional alias in the SIP MESSAGE request, the <functional-alias-URI> set to the URI of the used functional alias;

6) if the <store-specific-private-comms-in-msgstore> or the <store-specific-group-comms-in-msgstore> element is included in an application/vnd.3gpp.mcdata-info+xml MIME body, shall include an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body as specified in clause D.X with the <msgstore-ctrl-command-list> element containing:

a) if the <store-specific-private-comms-in-msgstore> element set to a value of "disable", may include zero or more <private> elements of <disable> element containing a MCData ID of the MCData user; and

b) if the <store-specific-group-comms-in-msgstore> element set to a value of "disable", may include zero or more <group> elements of <disable> element containing a MCData Group ID; and

7) shall send the SIP MESSAGE request according to rules and procedures of 3GPP TS 24.229 [5].

### 21.X.3 Participating MCData function procedures

#### 21.X.3.1 General

The participating MCData function has procedures to:

- receive a MCData communications storage control request from the MCData Client.

#### 21.X.3.2 Control communications storage into message store procedures.

Upon receipt of a "SIP MESSAGE request for controlling the storage of the MCData communications into MCData message store", the participating MCData function:

1) if unable to process the request due to a lack of resources or a risk of congestion exists, may reject the SIP MESSAGE request with a SIP 500 (Server Internal Error) response. The participating MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4] and skip the rest of the steps;

2) shall determine the MCData ID of the calling user from the public user identity in the P-Asserted-Identity header field of the SIP MESSAGE request;

NOTE: The MCData ID of the calling user is bound to the public user identity at the time of service authorisation.

3) if the participating MCData function cannot find a binding between the public user identity and an MCData ID or if the validity period of an existing binding has expired, then the participating MCData function shall reject the SIP MESSAGE request with a SIP 404 (Not Found) response with the warning text set to "141 user unknown to the participating function" in a Warning header field and shall not continue with any of the remaining steps;

4) if the application/vnd.3gpp.mcdata-info+xml MIME body of the SIP MESSAGE request containing <request-type> element set to a value of "store-comms-in-msgstore-ctrl-req" and:

a) the <allow-store-comms-in-msgstore> element of the <ruleset> element is not present in the MCData user profile document (see the MCData user profile document in 3GPP TS 24.484 [12]) or is set to a value of "false", shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response including warning text set to "xyz user authorized to enable or disable the storage of MCData communications into the MCData message store" in a Warning header field, and shall not continue with the rest of the steps in this subclause;

b) if the <store-all-private-comms-in-msgstore> element is present in the incoming request and the <allow-store-private-comms-in-msgstore> element of the <ruleset> element is not present in the MCData user profile document (see the MCData user profile document in 3GPP TS 24.484 [12]) or is set to a value of "false", shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response including warning text set to "xyz user authorized to enable or disable the storage of MCData communications into the MCData message store" in a Warning header field, and shall not continue with the rest of the steps in this subclause; or

c) if the <store-all-group-comms-in-msgstore> element is present in the incoming request and the <allow-store-group-comm-in-msgstore> element of the each <MCDataGroupInfo> element is not present in the MCData user profile document (see the MCData user profile document in 3GPP TS 24.484 [12]) or is set to a value of "false", shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response including warning text set to "xyz user authorized to enable or disable the storage of MCData communications into the MCData message store" in a Warning header field, and shall not continue with the rest of the steps in this subclause;

d) the SIP MESSAGE request do not contain an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body, the <store-all-private-comms-in-msgstore> element, and the <store-all-group-comms-in-msgstore> elements, shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response including warning text set to "abc unable to determine target user or group for enabling or disabling the storage of MCData communications into the MCData message store" in a Warning header field, and shall not continue with the rest of the steps in this subclause;

e) if the <store-all-group-comms-in-msgstore> element is not present and an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body with zero or more <group> elements of <enable> or <disable> element are included, then each specified MCPTT group ID matches with the corresponding entry in the each <MCDataGroupInfo> do not contain the <allow-store-group-comm-in-msgstore> element in the MCData user profile document (see the MCData user profile document in 3GPP TS 24.484 [12]) or is set to a value of "false", shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response including warning text set to "xyz user authorized to enable or disable the storage of MCData communications into the MCData message store" in a Warning header field, and shall not continue with the rest of the steps in this subclause; or

f) if the <store-specific-private-comms-in-msgstore> or <store-specific-group-comms-in-msgstore> is present and the request do not contain an application/resource-lists MIME body, shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response including warning text set to "abc unable to determine target user or group for enabling or disabling the storage of MCData communications into the MCData message store" in a Warning header field, and shall not continue with the rest of the steps in this subclause;

5) if the application/vnd.3gpp.mcdata-info+xml MIME body of the SIP MESSAGE request contains:

a) if the <store-all-private-comms-in-msgstore> element set to a value of "true", shall update or store the record for the MCData client and enable the storage of all the MCData private communications for which user is authorized to store the communication into the MCData message store;

b) if the <store-all-private-comms-in-msgstore> element set to a value of "false", shall update or store the record for the MCData client and disable the storage of all the MCData private communications for which user is authorized to store the communication into the MCData message store;

c) if the <store-specific-private-comms-in-msgstore> element set to a value of "enable", the <store-all-private-comms-in-msgstore> element is not present and an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body with one or more <private> elements of <enable> element are included, shall update or store the record for the MCData client and enable the storage of MCData private communications of the requesting user with specified list of users for which user is authorized to store the communication into the MCData message store;

d) if the <store-specific-private-comms-in-msgstore> element set to a value of "disable", the <store-all-private-comms-in-msgstore> element is not present and an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body with one or more <private> elements of <disable> element are included, shall update or store the record for the MCData client and disable the storage of MCData private communications of the requesting user with the specified list of users for which user is authorized to store the communication into the MCData message store;

e) if the <store-all-group-comms-in-msgstore> element set to a value of "true", shall update or store the record for the MCData client and enable the storage of all the MCData group communications for which user is authorized to store the communication into the MCData message store;

f) if the <store-all-group-comms-in-msgstore> element set to a value of "false", shall update or store the record for the MCData client and disable the storage of all the MCData group communications for which user is authorized to store the communication into the MCData message store;

g) if the <store-specific-group-comms-in-msgstore> element set to a value of "enable", the <store-all-group-comms-in-msgstore> element is not present and an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body with one or more <group> elements of <enable> element are included, shall update or store the record for the MCData client and enable the storage for the specified MCData group communications for which user is authorized to store the communication into the MCData message store; or

h) if the <store-specific-group-comms-in-msgstore> element set to a value of "disable", the <store-all-group-comms-in-msgstore> element is not present and an application/vnd.3gpp.mcdata-msgstore-ctrl-request+xml MIME body with one or more <group> elements of <disable> element are included, shall update or store the record for the MCData client and disable the storage for the specified MCData group communications for which user is authorized to store the communication into the MCData message store;

6) shall generate a SIP 200 (OK) response as specified in 3GPP TS 24.229 [5] with the following clarifications:

a) shall include the public user identity in the P-Asserted-Identity header; and

7) shall send the SIP 200 (OK) response to the MCData client according to 3GPP TS 24.229 [5].

\* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \*

## D.1.2 XML schema

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema

xmlns:xs="http://www.w3.org/2001/XMLSchema"

targetNamespace="urn:3gpp:ns:mcdataInfo:1.0"

xmlns:mcdatainfo="urn:3gpp:ns:mcdataInfo:1.0"

elementFormDefault="qualified"

attributeFormDefault="unqualified"

xmlns:xenc="http://www.w3.org/2001/04/xmlenc#">

<xs:import namespace="http://www.w3.org/2001/04/xmlenc#" schemaLocation="http://www.w3.org/TR/xmlenc-core/xenc-schema.xsd"/>

<!-- root XML element -->

<xs:element name="mcdatainfo" type="mcdatainfo:mcdatainfo-Type" id="info"/>

<xs:complexType name="mcdatainfo-Type">

<xs:sequence>

<xs:element name="mcdata-Params" type="mcdatainfo:mcdata-ParamsType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

<xs:element name="anyExt" type="mcdatainfo:anyExtType" minOccurs="0"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:complexType name="mcdata-ParamsType">

<xs:sequence>

<xs:element name="mcdata-access-token" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="request-type" type="xs:string" minOccurs="0"/>

<xs:element name="mcdata-request-uri" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="mcdata-calling-user-id" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="mcdata-called-party-id" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="mcdata-calling-group-id" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="alert-ind" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="originated-by" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="mcdata-client-id" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:element name="mcdata-controller-psi" type="mcdatainfo:contentType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

<xs:element name="anyExt" type="mcdatainfo:anyExtType" minOccurs="0"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<!-- anyExt elements for MCData-Params-->

<xs:element name="emergency-alert-area-ind" type="xs:boolean"/>

<xs:element name="group-geo-area-ind" type="xs:boolean"/>

<xs:element name="pre-established-session-ind" type="xs:boolean"/>

<xs:element name="mcdata-communication-state" type="mcdatainfo:mcdataCommunicationStateType"/>

<xs:simpleType name="mcdataCommunicationStateType">

<xs:restriction base="xs:string">

<xs:enumeration value="establish-request"/>

<xs:enumeration value="establish-success"/>

<xs:enumeration value="establish-fail"/>

<xs:enumeration value="terminate-request"/>

<xs:enumeration value="terminated"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="emergency-ind" type="xs:boolean"/>

<xs:element name="alert-ind-rcvd" type="xs:boolean"/>

<xs:element name="mc-org" type="xs:string"/>

<xs:element name="imminentperil-ind" type="xs:boolean"/>

<xs:element name="emergency-ind-rcvd" type="xs:boolean"/>

<xs:element name="store-all-private-comms-in-msgstore" type="xs:boolean"/>

<xs:element name="store-all-group-comms-in-msgstore" type="xs:boolean"/>

<xs:element name="store-specific-private-comms-in-msgstore" type="mcdatainfo:storageCtrlType"/>

<xs:element name="store-specific-group-comms-in-msgstore" type="mcdatainfo:storageCtrlType"/>

<xs:simpleType name="storageCtrlType">

<xs:restriction base="xs:string">

<xs:enumeration value="enable"/>

<xs:enumeration value="disable"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType name="protectionType">

<xs:restriction base="xs:string">

<xs:enumeration value="Normal"/>

<xs:enumeration value="Encrypted"/>

</xs:restriction>

</xs:simpleType>

<xs:complexType name="contentType">

<xs:choice>

<xs:element name="mcdataURI" type="xs:anyURI"/>

<xs:element name="mcdataString" type="xs:string"/>

<xs:element name="mcdataBoolean" type="xs:boolean"/>

<xs:any namespace="##other" processContents="lax"/>

<xs:element name="anyExt" type="mcdatainfo:anyExtType" minOccurs="0"/>

</xs:choice>

<xs:attribute name="type" type="mcdatainfo:protectionType"/>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:complexType name="anyExtType">

<xs:sequence>

<xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

</xs:complexType>

</xs:schema>

\* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \*

## D.1.3 Semantic

The <mcdatainfo> element is the root element of the XML document. The <mcdatainfo> element can contain subelements.

NOTE 1: The subelements of the <mcdata-info> are validated by the <xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/> particle of the <mcdata-info> element

If the <mcdatainfo> contains the <mcdata-Params> element then:

1) the <mcdata-access-token>, <mcdata-request-uri>, <mcdata-controller-psi>, <mcdata-calling-user-id>, <mcdata-called-party-id>, <mcdata-calling-group-id>, <alert-ind>, <originated-by>, <mcdata-client-id> and <functional-alias-URI> can be included with encrypted content;

2) for each element in 1) that is included with content that is not encrypted:

a) the element has the "type" attribute set to "Normal";

b) if the element is the <mcdata-request-uri>, <mcdata-calling-user-id>, <mcdata-called-party-id>, <mcdata-calling-group-id>, <originated-by> or <functional-alias-URI> then the <mcdataURI> element is included;

c) if the element is the <mcdata-access-token> or <mcdata-client-id>, then the <mcdataString> element is included; and

d) if the element is <alert-ind>, then the <mcdataBoolean> element is included; and

3) for each element in 1) that is included with content that is encrypted:

a) the element has the "type" attribute set to "Encrypted";

b) the <xenc:EncryptedData> element from the "[http://www.w3.org/2001/04/xmlenc#](http://www.w3.org/2001/04/xmlenc)" namespace is included and:

i) can have a "Type" attribute can be included with a value of "<http://www.w3.org/2001/04/xmlenc#Content>";

ii) can include an <EncryptionMethod> element with the "Algorithm" attribute set to value of "http://www.w3.org/2009/xmlenc11#aes128-gcm";

iii) can include a <KeyInfo> element with a <KeyName> element containing the base 64 encoded XPK-ID; and

iv) includes a <CipherData> element with a <CipherValue> element containing the encrypted data.

NOTE 2: When the optional attributes and elements are not included within the <xenc:EncryptedData> element, the information they contain is known to sender and the receiver by other means.

If the <mcdatainfo> contains the <mcdata-Params> element then:

1) the <mcdata-access-token> can be included with the access token received during authentication procedure as described in 3GPP TS 24.482 [24];

2) the <request-type> can be included with:

a) a value of "one-to-one-sds" to indicate that the MCData client wants to initiate a one-to-one SDS request;

b) a value of "group-sds" to indicate the MCData client wants to initiate a group SDS request;

c) a value of "one-to-one-fd" to indicate that the MCData client wants to initiate a one-to-one FD request;

d) a value of "group-fd" to indicate that the MCData client wants to initiate a group FD request;

e) a value of "msf-disc-req" to indicate that the MCData client wishes to discover the absoluteURI of the media storage function for HTTP requests;

f) a value of "msf-disc-res" when the participating MCData function sends the absolute URI to the MCData client;

g) a value of "notify" when the controlling MCData function needs to send a notification to the MCData client;

h) a value of "one-to-one-sds-session" to indicate that the MCData client wants to initiate a one-to-one SDS session;

i) a value of "group-sds-session" to indicate the MCData client wants to initiate a group SDS session;

j) a value of "functional-alias-status-determination" when a client initiates a subscription request to FA status; or

k) a value of "store-comms-in-msgstore-ctrl-req" when an MCData client initiates a request to control the storage of MCData communications (private and group) into MCData message store;

3) the <mcdata-request-uri> can be included with an MCData group ID or an MCData user ID;

4) the <mcdata-calling-user-id> can be included, set to MCData ID of the originating user;

5) the <mcdata-called-party-id> can be included, set to the MCData ID of the terminating user;

6) the <mcdata-calling-group-id> can be included to indicate the MCData group identity to the terminating user;

7) the <alert-ind> can be:

a) set to "true" to indicate that an alert is to be sent; or

b) set to "false" to indicate that an alert is to be cancelled;

8) the <originated-by> can be included, set to the MCData ID of the originating user of an MCData emergency alert when being cancelled by another authorised MCData user;

9) the <mcdata-client-id> can be included, set to the MCData client ID of the MCData client that originated a SIP INVITE request, SIP REFER request, SIP REGISTER request, SIP PUBLISH request or SIP MESSAGE request;

10) the <mcdata-controller-psi> can be included, set to the PSI of the controlling MCData function that handled the one-to-one or group MCData data request; and

11) the <anyExt> can be included with the following elements:

a) a <pre-established-session-ind> element :

i) set to the value "true" by the MCData client in a pre-established session setup request to indicate to the MCData participating function about initiation of a pre-established session;

b) an <mcdata-communication-state> element can be included to indicate the state of MCData communication within a pre-established session. The <mcdata-communication-state> can be set to:

i) the value "establish-request" by the MCData participating function to indicate to the MCData client about an MCData communication establishment request within a pre-established session;

ii) the value "establish-success" by the MCData participating function or the MCData client to indicate that the MCData communication is established successfully;

iii) the value "establish-fail" by the MCData participating function or the MCData client to indicate that the MCData communication establishment is failed or rejected;

iv) the value "terminate-request" by the MCData participating function to indicate to the MCData client about an MCData communication termination request within a pre-established session; or

v) the value "terminated" by the MCData participating function or the MCData client to indicate that the MCData communication is terminated;

c) an <emergency-ind> element can be included and set to:

i) "true" to indicate that the communication that the MCData client is initiating is an emergency MCData communication; or

ii) "false" to indicate that the MCData client is cancelling an emergency MCData communication (i.e. converting it back to a non-emergency communication);

d) an <alert-ind-rcvd> element:

i) may be set to “true" and included in a SIP MESSAGE to indicate that the emergency alert or cancellation was received successfully;

e) an <mc-org> element may be:

i) set to the MCData user's Mission Critical Organization and included in an emergency alert sent by the MCData server to terminating MCData clients;

f) a <functional-alias-URI> element set to the value of the functional alias that is used together with the "mcdata-calling-user-id";

g) an <emergency-alert-area-ind> element:

i) set to the value "true" when the MCData client has entered an emergency alert area; or

ii) set to the value "false" when the MCData client has exited an emergency alert area;

h) a <group-geo-area-ind> element:

i) set to the value "true" when the MCData client has entered a group geographic area; or

ii) set to the value "false" when the MCData client has exited a group geographic area;

i) an <imminentperil-ind> element can be included if the <mcdata-request-uri> is also included and set to an MCData group ID, in which case the <imminentperil-ind> element is to be set to:

i) "true" to indicate that the communication that the MCData client is initiating is an imminent peril MCData communication; or

ii) "false" to indicate that the MCData client requests that the communication should no longer be considered an imminent peril MCData communication;

j) an <emergency-ind-rcvd> element:

i) can be set to "true" and included in a SIP MESSAGE to indicate that the in-progress emergency cancellation request was received successfully;

k) a <multiple-devices-ind> element can be included and set to:

i) "true" to indicate to the client that multiple clients are registered for the MCData user; or

ii) "false" to indicate to the client that no other clients are registered for the MCData user;

l) a <store-all-private-comms-in-msgstore> element can be included and set to:

i) "true" when the user wants to store his/her MCData private communications into his/her MCData message store account; or

ii) "false" when the user do not store his/her MCData private communications into his/her MCData message store account;

m) a <store-all-group-comms-in-msgstore> element can be included and set to:

i) "true" when the user wants to store his/her MCData group communications into his/her MCData message store account; or

ii) "false" when the user do not store his/her MCData group communications into his/her MCData message store account;

n) a <store-specific-private-comms-in-msgstore> element can be included and set to:

i) set to a value of "enable" when the user wants to store the specified MCData private communications for which user is authorized to store the communication into the MCData message store; or

ii) set to a value of "disable" when the user do not wants to store the specified MCData private communications for which user is authorized to store the communication into the MCData message store; and

o) a <store-specific-group-comms-in-msgstore> element can be included and set to:

i) "enable" when the user wants to store the specified MCData group communications for which user is authorized to store the communication into the MCData message store; or

ii) "disable" when the user do not wants to store the specified MCData group communications for which user is authorized to store the communication into the MCData message store.

Absence of the <emergency-ind>, <alert-ind> and <imminentperil-ind> in a SIP INVITE request indicates that the MCData client is initiating a non-emergency communication.

The recipient of the XML ignores any unknown element and any unknown attribute.

\* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \*

# D.X XML schema for control of communications storage

## D.X.1 General

This subclause defines the XML schema and MIME type for MCData user control of communications storage into message store.

## D.X.2 XML schema

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"

targetNamespace="urn:3gpp:ns:msgstoreControlRequest:1.0"

xmlns:mcpttmsgstorectrl="urn:3gpp:ns:msgstoreControlRequest:1.0"

attributeFormDefault="unqualified" elementFormDefault="qualified">

<xs:complexType name="enable-command">

<xs:sequence>

<xs:element type="xs:anyURI" name="group" minOccurs="0" maxOccurs="unbounded"/>

<xs:element type="xs:anyURI" name="private" minOccurs="0" maxOccurs="unbounded"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

<xs:element name="anyExt" type="mcpttmsgstorectrl:anyExtType" minOccurs="0"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:complexType name="disable-command">

<xs:sequence>

<xs:element type="xs:anyURI" name="group" minOccurs="0" maxOccurs="unbounded"/>

<xs:element type="xs:anyURI" name="private" minOccurs="0" maxOccurs="unbounded"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

<xs:element name="anyExt" type="mcpttmsgstorectrl:anyExtType" minOccurs="0"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<!-- root XML element when creating a message store XML document -->

<xs:element name="msgstore-ctrl-command-list">

<xs:complexType>

<xs:sequence>

<xs:element name="enable" type="mcpttmsgstorectrl:enable-command" minOccurs="0" />

<xs:element name="disable" type="mcpttmsgstorectrl:disable-command" minOccurs="0" />

<xs:element name="anyExt" type="mcpttmsgstorectrl:anyExtType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

</xs:complexType>

</xs:element>

<xs:complexType name="anyExtType">

<xs:sequence>

<xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

</xs:complexType>

</xs:schema>

## D.X.3 Semantic

The <msgstore-ctrl-command-list> element is the root element of the XML document. The < msgstore-ctrl-command-list > element may contain <enable>, or <disable> subelements or both.

If the <msgstore-ctrl-command-list> contains the <enable> element then:

1) the <enable> element contains a list of <group> subelements having zero or more subelement. The recipient shall enable the storing of the communications into message store of all the MCData groups contained in the list for the clients for which the <msgstore-ctrl-command-list> applies.

2) the <enable> element contains a list of <private> subelements having zero or more subelement. The recipient shall enable the storing of the communications into message store of all the MCData IDs contained in the list for the clients for which the <msgstore-ctrl-command-list> applies.

If the <msgstore-ctrl-command-list> contains the <disable> element then:

1) the <disable> element contains a list of <group> subelements having zero or more subelement. The recipient shall disable the storing of the communications into message store of all the MCData groups contained in the list for the clients for which the <msgstore-ctrl-command-list> applies.

2) the <disable> element contains a list of <private> subelements having zero or more subelement. The recipient shall disable the storing of the communications into message store of all the MCData IDs contained in the list for the clients for which the <msgstore-ctrl-command-list> applies.

The recipient of the XML ignores any unknown element and any unknown attribute.

## D.X.4 IANA registration template

Editor's Note: [eMCData3, CR abcd] MCC is requested to submit the IANA registration for this media type after the completion of 3GPP release 17.

Your Name:

<MCC name>

Your Email Address:

<MCC email address>

Media Type Name:

Application

Subtype name:

vnd.3gpp.mcdata-msgstore-ctrl-request+xml

Required parameters:

None

Optional parameters:

"charset" the parameter has identical semantics to the charset parameter of the "application/xml" media type as specified in section 9.1 of IETF RFC 7303.

Encoding considerations:

binary.

Security considerations:

Same as general security considerations for application/xml media type as specified in section 9.1 of IETF RFC 7303. In addition, this media type provides a format for exchanging information in SIP, so the security considerations from IETF RFC 3261 apply.

The information transported in this media type does not include active or executable content.

Mechanisms for privacy and integrity protection of protocol parameters exist. Those mechanisms as well as authentication and further security mechanisms are described in 3GPP TS 24.229.

This media type does not include provisions for directives that institute actions on a recipient's files or other resources.

This media type does not include provisions for directives that institute actions that, while not directly harmful to the recipient, may result in disclosure of information that either facilitates a subsequent attack or else violates a recipient's privacy in any way.

This media type does not employ compression.

Interoperability considerations:

Same as general interoperability considerations for application/xml media type as specified in section 9.1 of IETF RFC 7303. Any unknown XML elements and any unknown XML attributes are to be ignored by recipient of the MIME body.

Published specification:

3GPP TS 24.282 "Mission Critical Data (MCData) signalling control" version 17.4.0, available via http://www.3gpp.org/specs/numbering.htm.

Applications which use this media type:

Applications supporting the mission critical push to talk as described in the published specification.

Fragment identifier considerations:

The handling in section 5 of IETF RFC 7303 applies.

Restrictions on usage:

None

Provisional registration? (standards tree only):

N/A

Additional information:

1. Deprecated alias names for this type: none

2. Magic number(s): none

3. File extension(s): none

4. Macintosh File Type Code(s): none

5. Object Identifier(s) or OID(s): none

Intended usage:

Common

Person to contact for further information:

- Name: <MCC name>

- Email: <MCC email address>

- Author/Change controller:

i) Author: 3GPP CT1 Working Group/3GPP\_TSG\_CT\_WG1@LIST.ETSI.ORG

ii) Change controller: <MCC name>/<MCC email address>

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