**3GPP TSG-CT WG1 Meeting #125-eC1-20wxyz**

**Electronic meeting, 20-28 August 2020**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.282** | **CR** | **CR#** | **rev** | **-** | **Current version:** | **16.4.1** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Add preconfigured regroup to MCData | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | FirstNet | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh3MCPTT-CT | | | | |  | ***Date:*** | | | 20 August 2020 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Stage 2 has specified that MCData should support preconfigured regroup. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The preconfigured regroup procedures are added to TS 24.282 for MCData based on the work done in TS 24.379.  Warning texts are added to subclause 4.9.2. Exisitng subclause reference errors are corrected in subclause 4.9.2 as well. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | MCData will not be able to use preconfigured regroup. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1, 4.9.2, 6.2.1.1, 6.3.1.1, 6.3.3, 6.3.4,  (all of the following are new) X, X.1, X.2, X.2.1, X.2.1.1, X.2.1.2, X.2.1.3, X.2.1.4, X.2.2, X.2.2.1, X.2.2.2, X.2.2.3, X.2.2.4, X.2.2.5, X.2.3, X.2.3.1, X.2.3.2, X.2.3.3, X.2.4, X.2.4.1, X.2.4.2, X.2.4.3, X.3, X.3.1, X.3.1.1, X.3.1.2, X.3.1.3, X.3.1.4, X.3.2, X.3.2.1, X.3.2.2, X.3.2.3, X.3.2.4, X.3.2.5, X.3.3, X.3.3.1, X.3.3.2, X.3.3.3, D.6, D.6.1, D.6.2, D.6.3, D.6.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \* \***

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**An MCData user is affiliated to an MCData group**: The MCData user has expressed interest in an MCData group it is a member of, and both the MCData server serving the MCData user and the MCData server owning the MCData group have authorized the MCData user's interest in the MCData group communication.

**An MCData user is affiliated to an MCData group at an MCData client**: The MCData user is affiliated to the MCData group, the MCData client has a registered IP address for an IMPU related to the MCData ID, and the MCData server serving the MCData user has authorised the MCData user's interest in the MCData group at the MCData client.

**Affiliation status**: Applies for an MCData user to an MCData group and has one of the following states:

a) the "not-affiliated" state indicating that the MCData user is not interested in the MCData group and the MCData user is not affiliated to the MCData group;

b) the "affiliating" state indicating that the MCData user is interested in the MCData group but the MCData user is not affiliated to the MCData group yet;

c) the "affiliated" state indicating that the MCData user is affiliated to the MCData group and there was no indication that MCData user is no longer interested in the MCData group; and

d) the "deaffiliating" state indicating that the MCData user is no longer interested in the MCData group but the MCData user is still affiliated to the MCData group.

**Group document:** when the group is not a regroup based on a preconfigured regroup, the term "group document" used within the present document refers to the group document for that group within the GMS as specified in 3GPP TS 24.481 [31]; when the group is a regroup based on a preconfigured group, the term "group document" used within the present document refers to the group document for the preconfigured group as specified in 3GPP TS 24.481 [31] restricted to the users or groups included in the regroup stored by the MCData server at the time of the regroup creation, see clause X.

**Group identity**: An MCData group identity or a temporary MCData group identity.

**MCData client ID:** is a globally unique identification of a specific MCData client instance. MCData client ID is a UUID URN as specified in IETF RFC 4122 [14].

**MCData emergency alert**: A notification from the MCData client to the MCData service that the MCData user has an emergency condition.

**MCData emergency alert state:** MCData client internal perspective of the state of an MCData emergency alert.

**MCData emergency group state:** MCData client internal perspective of the in-progress emergency state of an MCData group maintained by the controlling MCData function.

**MCData emergency group communication**: An urgent MCData group communication that highlights a situation of potential death or serious injury.

**MCData emergency group communication state:** MCData client internal perspective of the state of an MCData emergency group communication.

**Functional alias status**: Applies for the status of a functional alias for an MCData user and has one of the following states:

a) the "not-activated" state indicating that the MCData user has not activated the functional alias;

b) the "activating" state indicating that the MCData user is interested in using the functional alias but the functional alias is not yet activated for the MCData user;

c) the "activated" state indicating that the MCData user has activated the functional alias; and

d) the "deactivating" state indicating that the MCData user is no longer interested in using the functional alias but the functional alias is still activated for the MCData user.

For the purpose of the present document, the following terms and definitions given in 3GPP TS 33.180 [26] apply:

**Client Server Key (CSK)**

**Multicast Signalling Key (MuSiK)**

**Multicast Signalling Key Identifier (MuSiK-ID)**

**MBMS subchannel control key (MSCCK)**

**MBMS subchannel control key identifier (MSCCK-ID)**

**Private Call Key (PCK)**

**Signalling Protection Key (SPK)**

**XML Protection Key (XPK)**

For the purpose of the present document, the following terms and definitions given in 3GPP TS 22.280 [68] apply:

**Functional alias**

##### **\* \* \* \* \* NEXT 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. | |
| 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. | |
| 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. | |
| 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". | |

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

#### 6.2.1.1 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 client needs to distinguish between the following SIP MESSAGE request for originations and terminations:

- 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 MCData client containing a Content-Type header field set to "application/vnd.3gpp.mcdata-info+xml" and including an <alert-ind> element set to a value of "true" or "false" and/or an <emergency-ind> element set to a value of "true" or "false". Such requests are known as "SIP MESSAGE request for emergency notification";

- SIP MESSAGE request routed to the MCData client 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 MCData client";

- SIP MESSAGE request routed to the MCData client 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 MCData client";

- SIP MESSAGE request routed to the MCData client 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, 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 terminating MCData client"; and

- SIP MESSAGE request routed to the MCData client 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 NOTIFICATION message Such requests are known as "SIP MESSAGE request for FD disposition notification for terminating MCData client";

- SIP MESSAGE request routed to the MCData client 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 in of the SIP MESSAGE request contains the value "msf-disc-res". Such requests are known as "SIP MESSAGE request for absolute URI discovery response";

- SIP MESSAGE request routed to the MCData client 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 RESPONSE message. Such requests are known as "SIP MESSAGE response for the list of deferred group communications request";

- SIP MESSAGE requests routed to the MCData client with the Request-URI set to a public service identity of the MCData user that contains a <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body and a <regroup-action> element set to "create". Such requests are known as "SIP MESSAGE request to the MCData client to request creation of a regroup using preconfigured group" in the procedures in the present document; and

- SIP MESSAGE requests routed to the MCData client with the Request-URI set to a public service identity of the MCData user 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 MCData client to request removal of a regroup using preconfigured group" in the procedures in the present document.

##### **\* \* \* \* \* 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; and

- 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.

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 \* \* \* \* \***

### 6.3.3 Retrieving a group document

This subclause describes how an MCData server accesses a group document from a group management server.

NOTE 1: The group document for a user or group regroup based on a preconfigured group is the group document for the preconfigured group restricted to the users or groups included in the regroup stored by the MCData server at the time of the regroup creation and does not include a <preconfigured-group-use-only> element.

Upon receipt of a SIP request:

1) if the MCData server is not yet subscribed to the group document for the group identity in the <mcdata-request-uri> element of the application/vnd.3gpp.mcdata-info+xml MIME body of the SIP request, the MCData server shall subscribe to the "xcap-diff" event-package for the group document of this group identity as specified in 3GPP TS 24.481 [11];

NOTE 2: As a group document can potentially have a large content, the MCData server can subscribe to the group document indicating support of content-indirection as defined in IETF RFC 4483 [13], by following the procedures in 3GPP TS 24.481 [11].

2) upon receipt of a SIP 404 (Not Found) response as a result of attempting to subscribe to the "xcap-diff" event-package for the group document of the group identity in the <mcdata-request-uri> element of the application/vnd.3gpp.mcdata-info+xml MIME body of the SIP request as specified in 3GPP TS 24.481 [11], the MCData server shall send the SIP 404 (Not Found) response with the warning text set to "113 group document does not exist" in a Warning header field as specified in subclause 4.9. Otherwise, continue with the rest of the steps; and

3) upon receipt of any other SIP 4xx, SIP 5xx or SIP 6xx response as a result of attempting to subscribe to the "xcap-diff" event-package for the group document of the group identity in the <mcdata-request-uri> element of the application/vnd.3gpp.mcdata-info+xml MIME body of the SIP INVITE request as specified in 3GPP TS 24.481 [11], the MCData server shall send the SIP final response with the warning text set to "114 unable to retrieve group document" in a Warning header field as specified in subclause 4.4 and shall not continue with the rest of the steps;

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

### 6.3.4 Determining targeted group members for MCData communications

The MCData server shall only send MCData messages to affiliated group members.

The MCData server determines whether a user is affiliated to a group by following the procedures in subclause 6.3.5.

If the group is not a regroup based on a preconfigured group, the MCData server determines the affiliated members from the entries contained in the <list> element of the group document by following the procedures specified in subclause 6.3.5.

If the group is a regroup based on a preconfigured group, the MCData server determines the affiliated members from the list of users that was stored during successful processing of the creation of the regroup per clause X by following the procedures specified in subclause 6.3.5.

NOTE 1: The term "affiliated group members" used above also includes those members that are implicitly affiliated by the controlling MCData function.

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

# X Regroup using a preconfigured group

## X.1 General

In the procedures in this clause:

1) temporary group identity in an incoming SIP MESSAGE request refers to the temporary group identity from the <mcdata-regroup-uri> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body of the incoming SIP MESSAGE request; and

2) preconfigured group identity in an incoming SIP MESSAGE request refers to the the group identity from the <preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body of the incoming SIP MESSAGE request.

Regroup using a preconfigured group refers to the creation of a user/group regroup based on the configuration information associated with an existing group that is referred to as the preconfigured group. A regroup takes its entire configuration from the preconfigured group, including security keys. If the preconfigured group document contains a <listserv> element that contains a <preconfigured-group-use-only> element, that <preconfigured-group-use-only> element is not included in the configuration of the regroup.

All MCData servers and all MCData clients are configured with the preconfigured group to allow immediate use of the regroup for a call upon creation of the regroup.

A regroup using a preconfigured group is initiated by the MCData client referencing a preconfigured group document in the GMS. The advantage of regroup using a preconfigured group is speed of setup of the group, especially when large numbers of users (e.g., thousands) are involved. Control of the regroup using a preconfigured group is focused in the controlling MCData function. Creation and removal of a regoup is normally initiated by an MCData client. Removal can also be initiated by the controlling MCData function.

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

## X.2 Group regroup using a preconfigured group

### X.2.1 Client procedures

#### X.2.1.1 Requesting a group regroup using a preconfigured group

Upon receiving a request from an MCData user to establish an MCData group regroup using a preconfigured group, the MCData client shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] and:

1) shall include an Accept-Contact header field containing the g.3gpp.mcdata media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [8];

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

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

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

6) shall contain an application/vnd.3gpp.mcdata-info+xml MIME body with the <mcdatainfo> element containing the <mcdata-Params> element with:

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

b) if the MCData client is aware of active functional aliases, and an active functional alias is to be included in the SIP MESSAGE request, the <functional-alias-URI> set to the URI of the used functional alias; and

7) shall contain an application/vnd.3gpp.mcdata-regroup+xml MIME body with:

a) the <regroup-action> element set to the value "create";

b) the <mcdata-regroup-uri> element set to a unique temporary group identity URI;

NOTE: How the unique temporary group identity URI is formed is an implementation decision.

c) the <preconfigured-group> element set to the group identity of the preconfigured group; and

d) the <groups-for-regroup> element set to the list of MCData group identities of groups that are to be included in the regroup; and

8) shall send the SIP MESSAGE request according to 3GPP TS 24.229 [5].

On receiving a SIP 2xx response to the SIP MESSAGE request, the MCData client:

1) should notify the MCData user of the successful creation of the group regroup using preconfigured group.

On receiving a SIP 4xx response, a SIP 5xx response or a SIP 6xx response to the SIP INVITE request:

1) should notify the MCData user of the failure to create the group regroup using preconfigured group.

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

#### X.2.1.2 Removing a regroup using preconfigured group

Upon receiving a request from an MCData user to remove a user or group regroup using a preconfigured group, the MCData client:

1) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6]:

2) shall include an Accept-Contact header field containing the g.3gpp.mcdata media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [8];

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

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

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

6) 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-Asserted-Service-Id header field according to IETF RFC 6050 [7];

7) shall contain an application/vnd.3gpp.mcdata-info+xml MIME body with the <mcdatainfo> element containing the <mcdata-Params> element with:

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

b) if the MCData client is aware of active functional aliases, and an active functional alias is to be included in the SIP MESSAGE request, the <functional-alias-URI> set to the URI of the used functional alias; and

8) shall contain an application/vnd.3gpp.mcdata-regroup+xml MIME body with:

a) the <mcdata-regroup-uri> element set to the unique temporary group identity URI representing the regroup to be removed; and

b) the <regroup-action> element set to "remove"; and

9) shall send the SIP MESSAGE request according to 3GPP TS 24.229 [5].

On receiving a SIP 2xx response to the SIP MESSAGE request, the MCData client:

1) should notify the MCData user of the successful removal of the regroup using preconfigured group.

On receiving a SIP 4xx response, a SIP 5xx response or a SIP 6xx response to the SIP INVITE request:

1) should notify the MCData user of the failure to remove the regroup using preconfigured group.

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

#### X.2.1.3 Receiving a notification of creation of a regroup using preconfigured group

Upon receiving a "SIP MESSAGE request to the MCData client to request creation of a regroup using preconfigured group", the MCData client:

1) should notify the MCData user of the creation of the regroup using preconfigured group;

2) shall send a 200 (OK) response to the MCData server according to 3GPP TS 24.229 [5];

3) in the application/vnd.3gpp.mcdata-regroup+xml MIME body contained in the incoming SIP MESSAGE request:

a) if a <users-for-regroup> element is included in that MIME body, shall store the value of the <mcdata-regroup-uri> element as the temporary group identity and associate that with the group identity received in the <mcdata-regroup-uri> element, along with the information that the created regroup is a user regroup and should store the contents of the <users-for-regroup> element as the list of the users that are part of that user regroup: or

b) if a <groups-for-regroup> element is included in that MIME body, shall store the value of the <mcdata-regroup-uri> element as the temporary group identity and associate that with the group identity received in the <mcdata-regroup-uri> element, along with the information that the created regroup is a group regroup and should store the contents of the <groups-for-regroup> element as the list of groups that are part of that group regroup:

4) shall consider that the MCData Client is affiliated with the regroup;

5) should not initiate calls targeting any of the constituent groups but instead target the regroup for the duration of a group regroup; and

6) if the regroup is a chat group, the MCData client should join the regroup when this notification of creation is received.

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

#### X.2.1.4 Receiving notification of removal of a regroup using preconfigured group

Upon receiving a "SIP MESSAGE request to the MCData client to request removal of a regroup using preconfigured group", the MCData client:

1) should notify the MCData user of the removal of the regroup using preconfigured group;

2) shall send a 200 (OK) response to the MCData server according to 3GPP TS 24.229 [5]; and

3) shall consider that the MCData client is de-affiliated from the regroup.

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

### X.2.2 Participating MCData function procedures

#### X.2.2.1 General

In the procedures in this clause:

1) temporary group identity in an incoming SIP MESSAGE request refers to the temporary group identity from the <mcdata-regroup-uri> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body of the incoming SIP MESSAGE request; and

2) preconfigured group identity in an incoming SIP MESSAGE request refers to the the group identity from the <preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body of the incoming SIP MESSAGE request.

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

#### X.2.2.2 Requesting a group regroup using a preconfigured group

Upon receipt of a "SIP MESSAGE request to the originating participating MCData function to request creation of a group regroup using preconfigured group", the originating 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 originating 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]. The originating participating MCData function shall skip the rest of the steps;

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

3) shall authorise the user. If the user profile identified by the MCData ID does not contain an <allow-regroup> element set to "true", the originating participating MCData function shall reject the "SIP MESSAGE request to the originating participating MCData function to request creation of a group regroup using preconfigured group" with a SIP 403 (Forbidden) response to the SIP MESSAGE request, with warning text set to "160 user not authorised to request creation of a group regroup" in a Warning header field as specified in clause 4.9, and shall not continue with the rest of these steps;

4) shall select a controlling MCData function to manage the regroup and determine the public service identity of that controlling MCData function;

NOTE 1: How the originating participating MCData function selects a controlling MCData function to manage the regroup is a deployment decision.

5) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] and:

a) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

b) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the controlling MCData function selected in step 4);

c) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

d) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request; and

e) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

6) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

Upon receipt of a SIP 480 (Temporarily Unavailable) response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall select a different controlling MCData function to manage the regroup and determine the public service identity of that controlling MCData function;

NOTE 2: How the originating participating MCData function whether it decides to retry is a deployment decision.

2) shall generate a SIP MESSAGE request as specified in this clause with the Request-URI of the outgoing SIP MESSAGE request set to the public service identity of the controlling MCData function selected in step 1); and

3) shall forward the SIP MESSAGE request according to 3GPP TS 24.229 [5].

Upon receipt of a SIP 2xx response to the above SIP MESSAGE request, the originating participating MCData function shall send a SIP 200 (OK) response to the MCData client according to 3GPP TS 24.229 [5].

Upon receipt of any SIP 4xx response other than a 480 response, or a SIP 5xx or 6xx response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall generate a SIP response according to 3GPP TS 24.229 [5];

2) shall include Warning header field(s) that were received in the incoming SIP response; and

3) shall forward the SIP response to the MCData client according to 3GPP TS 24.229 [5].

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

#### X.2.2.3 Removing a regroup using preconfigured group

Upon receipt of a "SIP MESSAGE request to the originating participating MCData function to remove a regroup using preconfigured group" for a temporary group identity, the originating 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 originating 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]. The originating participating MCData function shall skip the rest of the steps;

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

3) shall authorise the user. If the user profile identified by the MCData ID does not contain an <allow-regroup> element set to "true", the originating participating MCData function shall reject the "SIP MESSAGE request to remove a regroup using preconfigured group" with a SIP 403 (Forbidden) response to the SIP MESSAGE request, with warning text set to "161 user not authorised to request removal of a regroup " in a Warning header field as specified in clause 4.9, and shall skip the rest of these steps;

4) shall determine the public service identity of the controlling MCData function associated with the regroup identity in the SIP MESSAGE request;

5) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] and:

a) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

b) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the controlling MCData function determined in step 4;

c) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

d) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request; and

e) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

6) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

Upon receipt of a SIP 2xx response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall generate a SIP 200 (OK) response as specified in the subclause 6.3.2.1.5.2;

2) shall include Warning header field(s) that were received in the incoming SIP 200 (OK) response;

3) shall include the public service identity received in the P-Asserted-Identity header field of the incoming SIP 200 (OK) response into the P-Asserted-Identity header field of the outgoing SIP 200 (OK) response; and

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

Upon receipt of a SIP 4xx, 5xx or 6xx response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall generate a SIP response according to 3GPP TS 24.229 [5];

2) shall include Warning header field(s) that were received in the incoming SIP response; and

3) shall forward the SIP response to the MCData client according to 3GPP TS 24.229 [5].

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

#### X.2.2.4 Notification of creation of a regroup using preconfigured group

When receiving a "SIP MESSAGE request to the terminating participating MCData function to create a group regroup using preconfigured group", the terminating 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 terminating 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]. The terminating participating MCData function shall skip the rest of the steps;

2) shall send a SIP 200 (OK) response as specified in 3GPP TS 24.229 [5];

3) for each MCData ID contained in the <users-for-regroup> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body, the terminating participating MCData function:

a) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6]:

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity associated with the MCData ID;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

f) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request;

g) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5]; and

h) shall consider the MCData ID as affiliated with the temporary group identity representing the regroup identified in the <mcdata-regroup-uri> element in the incoming SIP MESSAGE request; and

4) shall store:

a) the value of the <mcdata-regroup-uri> element as the identity of the regroup based on a preconfigured group;

b) the value of the <preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the identity of the preconfigured group; and

c) the set of MCData IDs contained in the <users-for-regroup> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the list of the users that are members of the group regroup;

until the regroup is removed.

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

#### X.2.2.5 Notification of removal of a regroup using preconfigured group

When receiving a "SIP MESSAGE request to the terminating participating MCData function to remove a regroup using preconfigured group", the terminating 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 terminating 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]. The terminating participating MCData function shall skip the rest of the steps;

2) shall generate a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] and shall send the SIP 200 (OK) response as specified in 3GPP TS 24.229 [5];

3) for each served MCData ID affiliated with the temporary group identity in the incoming SIP MESSAGE, the terminating participating MCData function:

a) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6]:

b) include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity associated with the MCData ID;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request, with the exceptions that any <users-for-regroup> or <groups-for-regroup> elements shall not be copied;

f) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request;

g) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5];and

h) shall consider the MCData ID as deaffiliated from the regroup.

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

### X.2.3 Controlling MCData function procedures

#### X.2.3.1 Request to create a group regroup using preconfigured group

When receiving a "SIP MESSAGE request to the controlling MCData function to request creation of a group regroup using preconfigured group" the controlling 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 controlling MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4]. The controlling MCData function shall skip the rest of the steps;

2) if the controlling MCData function is not able to handle the regroup based on the MCData group indicated in the <preconfigured-group> element in an application/vnd.3gpp.mcdata-regroup+xml MIME body:

a) shall generate a SIP 480 (Temporarily Unavailable) response to the incoming SIP MESSAGE request; and

b) shall send the SIP 480 (Temporarily Unavailable) response as specified in 3GPP TS 24.229 [5] and skip the rest of the steps;

3) if the controlling MCData function determines that the proposed group ID for the regroup is already in use, shall reject the "SIP MESSAGE request to the controlling MCData function to request creation of a group regroup using preconfigured group" with a SIP 403 (Forbidden) response to the SIP MESSAGE request, with warning text set to "165 group ID for regroup already in use" in a Warning header field as specified in subclause 4.9, and shall skip the rest of the steps;

4) for each group identified in the <groups-for-regroup> element:

a) shall determine the controlling MCData function serving that group;

NOTE The controlling MCData function serving a consitituent group assumes the role of a non-controlling MCData function for the regroup.

b) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

c) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

d) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the non-controlling MCData function;

e) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

f) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

g) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

h) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5];

5) shall wait to receive SIP responses from all of the non-controlling MCData functions that were sent a SIP MESSAGE request above;

6) if all of the SIP responses received above are SIP 200 (OK) responses:

a) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) shall store the list of group identities contained in the <groups-for-regroup> element;

c) shall store the value of the <mcdata-regroup-uri> element as the identity of the group regroup based on a preconfigured group; and

d) shall store the value of the preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the identity of the preconfigured group; and

7) if at least one of the SIP responses received above is not a SIP 2xx response:

a) shall send a SIP 480 (Temporarily Unavailable) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) for each non-controlling MCData function that returned a SIP 200 (OK) response in step 4:

i) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

ii) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the non-controlling MCData function;

iii) shall include an application/vnd.3gpp.mcdata-regroup+xml MIME body in the outgoing SIP MESSAGE request with;

A) an <mcdata-regroup-uri> element set to the identity of the regroup; and

B) a <regroup-action> element set to "remove"; and

iv) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

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

#### X.2.3.2 Request to remove a regroup using preconfigured group

When receiving a "SIP MESSAGE request to the controlling MCData function to remove a regroup using preconfigured group" the controlling 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 controlling MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4]. The controlling MCData function shall skip the rest of the steps;

2) if the controlling MCData function determines that the requested group ID for the regroup removal does not exist, shall reject the "SIP MESSAGE request to the controlling MCData function to remove a regroup using preconfigured group" with a SIP 403 (Forbidden) response to the SIP MESSAGE request, with warning text set to "163 the group identity indicated in the request does not exist" in a Warning header field as specified in clause 4.9, and shall skip the rest of the steps;

3) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

4) if the regroup is a group regroup based on preconfigured group, then:

a) for each constituent group belonging to the regroup:

i) shall determine the non-controlling MCData function serving that group;

ii) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

iii) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

iv) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the non-controlling MCData function;

v) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

vi) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

vii) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

viii) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5]; and

5) if the regroup is a user regroup based on preconfigured group, then for each user belonging to the regroup, the controlling MCData function shall create a separate list of MCData IDs for users belonging to and affiliated with the regroup who are served by the same terminating participating MCData function and for each terminating participating MCData function;

a) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the terminating participating MCData function;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

f) shall use the list of affiliated MCData IDs for this terminating participating MCData function to create and include a <users-for-regroup> element contained in the application/vnd.3gpp.mcdata-regroup+xml MIME body;

g) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

h) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

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

#### X.2.3.3 Decision to remove a regroup using preconfigured group

When the controlling MCData function decides to remove a regroup using preconfigured group, the controlling MCData function:

1) if the regroup is a group regroup based on preconfigured group, then:

a) for each constituent group belonging to the regroup:

i) shall determine the non-controlling MCData function serving that group;

ii) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

iii) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the non-controlling MCData function determined in step i);

iv) shall create an application/vnd.3gpp.mcdata-regroup+xml MIME body and include it in the outgoing SIP MESSAGE request with:

A) an <mcdata-regroup-uri> element set to the identity of the regroup;

B) a <regroup-action> element set to "remove"; and

v) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5]; and

2) if the regroup is a user regroup based on preconfigured group, then the controlling MCData function shall create a list of terminating participating MCData functions serving users belonging to and affiliated with the regroup and shall create a list of MCData IDs that are affiliated to the regroup and served by the same terminating partificpating MCData function for each of the members of the list of terminating participating MCData functions, and for each terminating participating MCData function in the list:

a) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the terminating participating MCData function;

c) shall create an application/vnd.3gpp.mcdata-regroup+xml MIME body and include it in the outgoing SIP MESSAGE request with:

i) an <mcdata-regroup-uri> element set to the identity of the regroup;

ii) a <regroup-action> element set to "remove"; and

iii) a <users-for-regroup> element set to the list of MCData IDs served by this terminating participating MCData function that are affiliated to the regroup; and

d) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

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

### X.2.4 Non-controlling MCData function procedures

#### X.2.4.1 Notification of creation of a group regroup using preconfigured group

When receiving a "SIP MESSAGE request to a non-controlling MCData function to request creation of a group regroup using preconfigured group" the non-controlling 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 non-controlling MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4]. The non-controlling MCData function shall skip the rest of the steps;

2) or each group identified in the <groups-for-regroup> element of an application/vnd.3gpp.mcdata-regroup+xml MIME body in the incoming SIP MESSAGE request for which the MCData function is the non-controlling MCData function:

a) shall determine if the group is already regrouped, and if the group is already regrouped:

i) shall reject the SIP request with a SIP 403 (Forbidden) response including warning text set to "148 group is regrouped" in a Warning header field as specified in subclause 4.9; and

ii) shall not process the remaining steps;

3) shall store:

a) the list of group identities contained in the <groups-for-regroup> element;

b) the value of the <mcdata-regroup-uri> element as the identity of the group regroup;

c) the value of the preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the identity of the preconfigured group; and

d) information that each of the groups identified in the <groups-for-regroup> element has been regrouped using a preconfigured group;

4) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6]:

5) for each group identified in the <groups-for-regroup> element of an application/vnd.3gpp.mcdata-regroup+xml MIME body in the incoming SIP MESSAGE request for which the MCData function is the non-controlling MCData function shall create a separate list of MCData IDs for users belonging to and affiliated with the identified group who are served by the same terminating participating MCData function;

6) shall merge the lists of MCData IDs associated with each terminating participating MCData function such that the resulting list associated with a terminating participating MCData function contains the MCData IDs of all users served by the participating MCData function that belong to and are affiliated with any of the groups identified in the <groups-for-regroup> element; and

7) for each terminating participating MCData function identified above:

a) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the terminating participating MCData function;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

f) shall use the list of MCData IDs for this participating MCData function as generated in step 6) to create and include the <users-for-regroup> element in the application/vnd.3gpp.mcdata-regroup+xml MIME body;

g) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

h) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

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

#### X.2.4.2 Notification of removal of a group regroup using preconfigured group

When receiving a "SIP MESSAGE request to the non-controlling MCData function to remove a group regroup using preconfigured group" the non-controlling 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 non-controlling MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4]. The non-controlling MCData function shall skip the rest of the steps;

2) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6]:

3) shall identify the constituent groups belonging to the regroup identified in the <mcdata-regroup-uri> in the application/vnd.3gpp.mcdata-regroup+xml MIME body contained in the incoming SIP MESSAGE for which this MCData function is the non-controlling MCData function and shall create a list of terminating participating MCData functions serving MCData IDs belonging to the identified constituent groups and for each member of the list of terminating participating MCData functions in the list shall create a list of MCData IDs affiuliated to the regroup and served by that terminating participating MCData function;

4) for each terminating participating MCData function identified in step 3):

a) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the terminating participating MCData function;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

i) shall create and include a <users-for-regroup> element containing the list of MCData IDs affiliated to the regroup that are served by this terminating participating MCData function as determined in step 3); and

f) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

g) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

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

#### X.2.4.3 Notification of additional members of a group regroup using preconfigured group

When a non-controlling MCData function becomes aware of an MCData client affiliating with a group that it controls, where that group is a constituent group of a group regroup using preconfigured group, the non-controlling MCData function:

1) shall create a list of MCData IDs for users belonging to and affiliated with the identified constituent group who are served by the same terminating participating MCData function as the MCData client affiliating with the constituent group;

2) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

3) shall create in the SIP MESSAGE request copies of all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the SIP MESSAGE request received from the controlling MCData function for the group regroup to notify creation of the group regroup using preconfigured group;

4) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the terminating participating MCData function;

5) shall create an application/vnd.3gpp.mcdata-info+xml MIME body in the outgoing SIP MESSAGE request using the information from the application/vnd.3gpp.mcdata-info+xml MIME body originally included in the SIP MESSAGE request received from the controlling MCData function for the group regroup to notify creation of the group regroup using preconfigured group;

6) shall create an application/vnd.3gpp.mcdata-regroup+xml MIME body in the outgoing SIP MESSAGE request using the information from the application/vnd.3gpp.mcdata-regroup+xml MIME body originally included in the SIP MESSAGE request received from the controlling MCData function for the group regroup to notify creation of the group regroup using preconfigured group;

7) shall use the list of MCData IDs as generated in step 1) to create and include the <users-for-regroup> element in the application/vnd.3gpp.mcdata-regroup+xml MIME body;

8) shall copy the P-Asserted-Identity header field included in the received SIP MESSAGE request into the outgoing SIP MESSAGE request; and

9) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

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

## X.3 User regroup using a preconfigured group

### X.3.1 Client procedures

#### X.3.1.1 Requesting a user regroup using a preconfigured group

Upon receiving a request from an MCData user to establish an MCData user regroup using a preconfigured group, the MCData client shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] and:

1) shall include an Accept-Contact header field containing the g.3gpp.mcdata media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [8];

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

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

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

6) shall contain an application/vnd.3gpp.mcdata-info+xml MIME body with the <mcdatainfo> element containing the <mcdata-Params> element with:

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

b) if the MCData client is aware of active functional aliases, and an active functional alias is to be included in the SIP MESSAGE request, the <functional-alias-URI> set to the URI of the used functional alias;

7) shall contain an application/vnd.3gpp.mcdata-regroup+xml MIME body with:

a) the <mcdata-regroup-uri> element set to a unique temporary group identity URI;

NOTE: How the unique temporary group identity URI is formed is an implementation decision.

b) the <preconfigured-group> element set to the group identity of the preconfigured group;

c) the <regroup-action> element set to "create"; and

d) the <users-for-regroup> element set to the list of MCData IDs of users that are to be included in the regroup; and

8) shall send the SIP MESSAGE request according to 3GPP TS 24.229 [5].

On receiving a SIP 2xx response to the SIP MESSAGE request, the MCData client:

1) should notify the MCData user of the successful creation of the user regroup using preconfigured group.

On receiving a SIP 4xx response, a SIP 5xx response or a SIP 6xx response to the SIP INVITE request:

1) should notify the MCData user of the failure to create the user regroup using preconfigured group.

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

#### X.3.1.2 Removing a regroup using preconfigured group

When the user requests the MCData client to remove a user regroup, the MCData client uses the procedure in subclause X.2.1.2.

#### X.3.1.3 Creating a user regroup using preconfigured group

The procedure in subclause X.2.1.3 is used by the MCData client when the MCData server notifies the MCData client of the creation of a user regroup using preconfigured group.

#### X.3.1.4 Removing a user regroup using preconfigured group

The procedure in subclause X.2.1.4 is used by the MCData client when the MCData server notifies the MCData client of the removal of a user regroup using preconfigured group.

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

### X.3.2 Participating MCData function procedures

#### X.3.2.1 General

In the procedures in this clause:

1) temporary group identity in an incoming SIP MESSAGE request refers to the temporary group identity from the <mcdata-regroup-uri> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body of the incoming SIP MESSAGE request; and

2) preconfigured group identity in an incoming SIP MESSAGE request refers to the the group identity from the <preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body of the incoming SIP MESSAGE request.

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

#### X.3.2.2 Requesting a user regroup using a preconfigured group

Upon receipt of a "SIP MESSAGE request to the originating participating MCData function to request creation of a user regroup using preconfigured group", the originating 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 originating 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]. The originating participating MCData function shall skip the rest of the steps;

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

3) shall authorise the user. If the user profile identified by the MCData ID does not contain an <allow-regroup> element set to "true", the originating participating MCData function shall reject the "SIP MESSAGE request to the originating participating MCData function to request creation of a user regroup using preconfigured group" with a SIP 403 (Forbidden) response to the SIP MESSAGE request, with warning text set to "160 user not authorised to request creation of a regroup" in a Warning header field as specified in clause 4.9, and shall not continue with the rest of these steps;

4) shall select a controlling MCData function to manage the regroup and determine the public service identity of the controlling MCData function;

NOTE: How the originating participating MCData function selects a controlling MCData function to manage the regroup is a deployment decision.

5) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6] and:

a) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

b) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the controlling MCData function associated with the preconfigured group identity in the incoming SIP MESSAGE request;

c) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request; and

d) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request; and

e) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

6) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5].

Upon receipt of a SIP 480 (Temporarily Unavailable) response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall select a different controlling MCData function to manage the regroup and determine the public service identity of that controlling MCData function;

2) shall generate a SIP MESSAGE request as specified in this clause with the Request-URI of the outgoing SIP MESSAGE request set to the public service identity of the controlling MCData function selected in step 1); and

3) shall forward the SIP MESSAGE request according to 3GPP TS 24.229 [5].

Upon receipt of a SIP 2xx response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall generate a SIP 200 (OK) response as specified in the subclause 6.3.2.1.5.2;

2) shall include Warning header field(s) that were received in the incoming SIP 200 (OK) response;

3) shall include the public service identity received in the P-Asserted-Identity header field of the incoming SIP 200 (OK) response into the P-Asserted-Identity header field of the outgoing SIP 200 (OK) response; and

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

Upon receipt of a SIP 4xx response that is not a 480 response, or a SIP 5xx or 6xx response to the above SIP MESSAGE request, the originating participating MCData function:

1) shall generate a SIP response according to 3GPP TS 24.229 [5];

2) shall include Warning header field(s) that were received in the incoming SIP response; and

3) shall forward the SIP response to the MCData client according to 3GPP TS 24.229 [5].

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

#### X.3.2.3 Removing a regroup using preconfigured group

When the originating participating MCData function needs to remove a user regroup, the originating participating MCData function uses the procedure in subclause X.2.2.3.

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

#### X.3.2.4 Notification of creation of a user regroup using preconfigured group

When receiving a "SIP MESSAGE request to the terminating participating MCData function to create a user regroup using preconfigured group", the terminating 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 MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4]. The terminating participating MCData function shall skip the rest of the steps;

2) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

3) for each MCData ID contained in the <users-for-regroup> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body, the terminating participating MCData function is aware from stored information that the MCData client has not previously been notified of the creation of the user regroup:

a) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6]:

b) include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity associated with the MCData ID;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request, with the exceptions that any <users-for-regroup> elements shall not be copied;

f) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request;

g) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5];

h) shall consider the MCData ID as affiliated with the temporary group identity representing the regroup identified in the <mcdata-regroup-uri> element in the incoming SIP MESSAGE request; and

4) shall store:

a) the value of the <mcdata-regroup-uri> element as the identity of the regroup based on a preconfigured group;

b) the value of the preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the identity of the preconfigured group; and

c) the list of the users that are members of the user regroup;

until the regroup is removed.

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

#### X.3.2.5 Notification of removal of a user regroup using preconfigured group

When the terminating participating MCData function receives a request to remove a user regroup it uses the procedure in subclause X.2.2.5.

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

### X.3.3 Controlling MCData function procedures

#### X.3.3.1 Request to create a user regroup using preconfigured group

When receiving a "SIP MESSAGE request to the controlling MCData function to request creation of a user regroup using preconfigured group" the controlling 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 controlling MCData function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [4]. The controlling MCData function shall skip the rest of the steps;

2) if the controlling MCData function is unable to handle the user regroup it shall send a SIP 480 (Temporarily Unavailable) response to the incoming SIP MESSAGE request and shall skip the rest of the steps;

3) if the controlling MCData function determines that the proposed group ID for the regroup is already in use, shall reject the "SIP MESSAGE request to the controlling MCData function to request creation of a user regroup using preconfigured group" with a SIP 403 (Forbidden) response to the SIP MESSAGE request, with warning text set to "165 group ID for regroup already in use" in a Warning header field as specified in subclause 4.9, and shall skip the rest of the steps;

4) shall create a separate list of MCData IDs containing all users identified in the <users-for-regroup> element in the application/vnd.3gpp.mcdata-regroup+xml MIME body who are served by the same terminating participating MCData function;

5) for each terminating participating MCData function identified in step 3):

a) shall generate an outgoing SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6];

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [8] that were received (if any) in the incoming SIP MESSAGE request;

c) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the terminating participating MCData function;

d) shall copy the contents of the application/vnd.3gpp.mcdata-info+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-info+xml MIME body included in the outgoing SIP MESSAGE request;

d) shall copy the contents of the application/vnd.3gpp.mcdata-regroup+xml MIME body received in the incoming SIP MESSAGE request into an application/vnd.3gpp.mcdata-regroup+xml MIME body included in the outgoing SIP MESSAGE request;

e) shall use the list of MCData IDs for this participating MCData function as generated in step 3) to create and include a <users-for-regroup> element contained in the application/vnd.3gpp.mcdata-regroup+xml MIME body;

f) shall copy the contents of the P-Asserted-Identity header field of the incoming SIP MESSAGE request to the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

g) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [5];

6) when the controlling MCData function receives a SIP 200 (OK) response from any of the terminating participating MCData functions that were sent a SIP MESSAGE request in step 4) the controlling MCData function shall:

a) send a SIP 200 (OK) response to the incoming SIP MESSAGE request; and

b) store the the value of the <mcdata-regroup-uri> element as the identity of the user regroup based on a preconfigured group;

c) the value of the preconfigured-group> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the identity of the preconfigured group; and

d) store the set of MCData IDs contained in the <users-for-regroup> element of the application/vnd.3gpp.mcdata-regroup+xml MIME body as the the list of the users that are members of the user regroup; and

7) if no SIP 200 (OK) response is received for a SIP MESSAGE sent in step 4), the controlling MCData function shall send a SIP 480 (Temporarily Unavailable) response to the incoming SIP MESSAGE request in accordance with 3GPP TS 24.229 [5] and IETF RFC 3428 [6].

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

#### X.3.3.2 Request to remove a user regroup using preconfigured group

When the controlling MCData function receives a request to remove a user regroup it uses the procedure in subclause X.2.3.2.

#### X.3.3.3 Decision to remove a regroup using preconfigured group

When the controlling MCData function decides to remove a user regroup it uses the procedure in subclause X.2.3.3.

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

# D.6 XML schema for regroup using preconfigured group

## D.6.1 General

This subclause defines the XML schema and MIME type for regroup using preconfigured group.

## D.6.2 XML schema

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

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

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

xmlns:mcdatargrp="urn:3gpp:ns:preconfiguredRegroup:1.0"

attributeFormDefault="unqualified" elementFormDefault="qualified">

<!-- root XML element -->

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

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

<xs:sequence>

<xs:element name="mcdataregroup-Params" type="mcdatargrp:mcdataregroup-ParamsType" minOccurs="0"/>

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

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

</xs:sequence>

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

</xs:complexType>

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

<xs:sequence>

<xs:element name="preconfig-group-id" type="mcdatargrp:preconfig-group-Type"/>

<xs:element name="mcdata-regroup-uri" type="mcdatargrp:mcdata-regroup-uri-Type"/>

<xs:element name="groups-for-regroup" type="mcdatargrp:groups-for-regroup-Type" minOccurs="0"/>

<xs:element name="users-for-regroup" type="mcdatargrp:users-for-regroup-Type" minOccurs="0"/>

<xs:element name="regroup-action" type="xs:string"/>

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

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

</xs:sequence>

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

</xs:complexType>

<xs:complexType name="preconfig-group-Type">

<xs:sequence>

<xs:element type="xs:anyURI" name="preconfigured-group" minOccurs="0" maxOccurs="1"/>

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

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

</xs:sequence>

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

</xs:complexType>

<xs:complexType name="mcdata-regroup-uri-Type">

<xs:sequence>

<xs:element type="xs:anyURI" name="mcdata-regroup-uri"/>

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

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

</xs:sequence>

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

</xs:complexType>

<xs:complexType name="groups-for-regroup-Type">

<xs:sequence>

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

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

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

</xs:sequence>

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

</xs:complexType>

<xs:complexType name="users-for-regroup-Type">

<xs:sequence>

<xs:element type="xs:anyURI" name="user" maxOccurs="unbounded"/>

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

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

</xs:sequence>

<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>

## D.6.3 Semantic

The <preconfigured-group> element shall contain a URI identifying the preconfigured MCData group.

The <mcdata-regroup-uri> element shall shall contain a URI containing the temporary group identity identifying the regroup.

The < groups-for-regroup> element shall contain one or more <group> elements that shall each contain a URI of a group that is to be a constituent group of the regroup.

The <users-for-regroup> element shall contain one or more <user> elements that shall each contain an MCData ID of a user that is to be affiliated to the regroup.

The XML document shall have either one <groups-for-regroup> element or one <users-for-regroup> element, but not both.

If the <regroup-action> element contains the string "create" then:

1) if a <groups-for-regroup> element exists in the received XML, then:

a) if the recipient is the controlling MCData function for the MCData group identified in the <preconfigured-group> element the recipient shall follow the procedures to create a group regroup with identity equal to the value contained in the <mcdata-regroup-uri> element based on the configuration of the preconfigured MCData group identified in the <preconfigured-group> element;

b) if the recipient is a non-controlling MCData function, the recipient shall follow the procedures to affiliate users belonging to any constituent groups of the group regroup with identity equal to the value contained in the <mcdata-regroup-uri> element based on the configuration of the preconfigured MCData group identified in the <preconfigured-group> element; and

c) if the recipient is the terminating participating MCData function for one or more MCData users affiliated to a constituent group of the group regroup, the recipient shall follow the procedures to notify each MCData user in the list of users in the <users-for-regroup> element that it serves of the group regroup and affiliate those users to the group regroup; and

2) if a <users-for-regroup> element exists in the received XML, then:

a) if the recipient is the controlling MCData function for the MCData group identified in the <preconfigured-group> element, the recipient shall follow the procedures to create a user regroup with identity equal to the value contained in the <mcdata-regroup-uri> element based on the configuration of the preconfigured MCData group identified in the <preconfigured-group> element; and

b) if the recipient is the terminating participating MCData function for one or more MCData users identified in the <users-for-regroup> element, the recipient shall follow the procedures to notify each MCData user in the list of users in the <users-for-regroup> element that it serves of the user regroup and affiliate those users to the user regroup.

If the <regroup-action> element contains the string "remove" then:

1) the recipient shall follow the procedures to remove the regroup identified in the <mcdata-regroup-uri> element.

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

## D.6.4 IANA registration template

Editor's Note: [enh2MCPTT-CT, CR 0529] MCC is requested to submit the IANA registration for this media type.

Your Name:

<MCC name>

Your Email Address:

<MCC email address>

Media Type Name:

Application

Subtype name:

vnd.3gpp.mcdata-regroup+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 16.4.1, 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 CHANGES \* \* \* \* \***