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

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

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.379** | **CR** | **CR#** | **rev** | **-** | **Current version:** | **16.5.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Check for Preconfigured Group Use Only | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | FirstNet | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh2MCPTT-CT | | | | |  | ***Date:*** | | | 20 August 2020 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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 Rel-16 TS 23.379 specifies that a group can be configured for use only as a preconfigured group. Calls and alerts on such a group are not allowed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Checks are added in the client and controlling function procedures for group call initiation to make sure that the call/alert is not being made on a group that is indicated for preconfigured use only. The participating function cannot perform the checks, since it is not guaranteed to have access to the group document. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It will not be possible to prevent calls/alerts from being made on groups that have been adminstratively designated for preconfigured use only. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.4.2, 10.1.1.2.1.1, 10.1.1.2.2.1, 10.1.1.4.2, 10.1.2.2.1.1, 10.1.2.2.2.1, 10.1.2.4.1.1, 10.1.4.2.1, 10.1.4.4, 10.1.5.2.1, 10.1.5.4, 12.1.1.1, 12.1.3.1, 16.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 24.481 CR nnnn  TS 24.483 CR nnnn | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This TS 24.379 CR depends on approval of the above CRs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

##### **\* \* \* \* \* FIRST CHANGE \* \* \* \* \***

### 4.4.2 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 4.4.2-1.

Table 4.4.2-1 ABNF for the Warning text

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

mcptt-warn-code = DIGIT DIGIT DIGIT

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

Table 4.4.2-2 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 4.4.1.

Table 4.4.2-2: Warning texts defined for the Warning header field

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Code | | Explanatory text | | Description | |
| 100 | | function not allowed due to <detailed reason> | | The function is not allowed to this user.  The <detailed reason> will be either "group definition", "access policy", "local policy", "user authorisation" or "pre-established session not supported", or can be a free text string. | |
| 101 | | service authorisation failed | | The service authorisation of the MCPTT ID against the IMPU failed at the MCPTT server. | |
| 102 | | too many simultaneous affiliations | | The MCPTT user already has N2 maximum number of simultaneous affiliations. | |
| 103 | | maximum simultaneous MCPTT group calls reached | | The number of maximum simultaneous MCPTT group calls supported for the MCPTT user has been exceeded. | |
| 104 | | isfocus not assigned | | A controlling MCPTT function has not been assigned to the MCPTT session. | |
| 105 | | subscription not allowed in a broadcast group call | | Subscription to the conference event package rejected during a group call initiated as a broadcast group call. | |
| 106 | | user not authorised to join chat group | | The MCPTT user is not authorised to join this chat group. | |
| 107 | | user not authorised to make private calls | | The MCPTT user is not authorised to make private calls. | |
| 108 | | user not authorised to make chat group calls | | The MCPTT user is not authorised to make chat group calls. | |
| 109 | | user not authorised to make prearranged group calls | | The MCPTT user is not authorised to make group calls to a prearranged group. | |
| 110 | | user declined the call invitation | | The MCPTT user declined to accept the call. | |
| 111 | | group call proceeded without all required group members | | The required members of the group did not respond within the acknowledged call time, but the call still went ahead. | |
| 112 | | group call abandoned due to required group members not part of the group session | | The group call was abandoned, as the required members of the group did not respond within the acknowledged call time. | |
| 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 MCPTT 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 MCPTT group | | The group exists on the group management server but the requesting user is not part of this group. | |
| 117 | | the group identity indicated in the request is a prearranged group | | The group id that is indicated in the request is for a prearranged group, but did not match the request from the MCPTT user. | |
| 118 | | the group identity indicated in the request is a chat group | | The group id that is indicated in the request is for a chat group, but did not match the request from the MCPTT user. | |
| 119 | | user is not authorised to initiate the group call | | The MCPTT user identified by the MCPTT ID is not authorised to initiate the group call. | |
| 120 | | user is not affiliated to this group | | The MCPTT user is not affiliated to the group. | |
| 121 | | user is not authorised to join the group call | | The MCPTT user identified by the MCPTT ID is not authorised to join the group call. | |
| 122 | | too many participants | | The group call has reached its maximum number of participants. | |
| 123 | | MCPTT session already exists | | Inform the MCPTT user that the group call is currently ongoing. | |
| 124 | | maximum number of private calls reached | | The maximum number of private calls allowed at the MCPTT server for the MCPTT user has been reached. | |
| 125 | | user not authorised to make private call with automatic commencement | | The MCPTT user is not authorised to make a private call with automatic commencement. | |
| 126 | | user not authorised to make private call with manual commencement | | The MCPTT user is not authorised to make a private call with manual commencement. | |
| 127 | | user not authorised to be called in private call | | The called MCPTT user is not allowed to be part of a private call. | |
| 128 | | isfocus already assigned | | The MCPTT server owning an MCPTT group received a SIP INVITE request destined to the MCPTT group from another MCPTT server already assigned as the controlling MCPTT function and the MCPTT server owning the MCPTT group does not support mutual aid or supports trusted mutual aid but does not authorise trusted mutual aid. | |
| 136 | | authentication of the MIKEY-SAKKE I\_MESSAGE failed | | The MCPTT client's application of the procedures of 3GPP TS 33.180 [78] to authenticate the received I\_MESSAGE fails. | |
| 137 | | the indicated group call does not exist | | The participating MCPTT function cannot find an ongoing group session associated with the received MCPTT session identity. | |
| 138 | | subscription of conference events not allowed | | The controlling MCPTT function could not allow the MCPTT user to subscribe to the conference event package. | |
| 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 MCPTT 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. | |
| 143 | | not authorised to force auto answer | | The calling user is not authorised to force auto answer on the called user. | |
| 144 | | user not authorised to call this particular user | | The calling user is not authorised to call this particular called user. | |
| 145 | | unable to determine called party | | The participating function was unable to determine the called party from the information received in the SIP request. | |
| 146 | | T-PF unable to determine the service settings for the called user | | The service settings have not been uploaded by the terminating client to the terminating participating server. | |
| 147 | | user is authorized to initiate a temporary group call | | The non-controlling MCPTT function has authorized a request from the controlling MCPTT function to authorize a user to initiate an temporary group session. | |
| 148 | | MCPTT group is regrouped | | The MCPTT group hosted by a non-controlling MCPTT function is part of a temporary group session as the result of the group regroup function. | |
| 149 | | SIP-INFO request pending | | The MCPTT client needs to wait for a SIP-INFO request with specific content, before taking further action. | |
| 150 | | invalid combinations of data received in MIME body | | The MCPTT client included invalid combinations of data in the SIP request. | |
| 151 | | user not authorised to make a private call call-back request | | The MCPTT user is not authorised to make a private call call-back request. | |
| 152 | | user not authorised to make a private call call-back cancel request | | The MCPTT user is not authorised to make a private call call-back cancel request. | |
| 153 | | user not authorised to call any of the users requested in the first-to-answer call | | All users that were invited in the first-to-answer call cannot be involved in a private call with the inviting user. | |
| 154 | | user not authorised to make ambient listening call | | The MCPTT user is not authorised to make an ambient listening call. | |
| 155 | | user not authorised to change user's selected group | | The MCPTT user is not authorised to change the selected group of the targeted user. | |
| 156 | | user not authorised to originate a first-to-answer call | | The MCPTT user is not authorised to make a first-to-answer call. | |
| 157 | | user not authorised to request a remotely initiated group call | | The MCPTT user is not authorised to request a remotely initiated group call. | |
| 158 | | user not authorised to request a remotely initiated private call | | The MCPTT user is not authorised to request a remotely initiated private call. | |
| 159 | | user not authorised to be called by this originating user | | The called user is not authorised to receive a call by this originating user. | |
| 160 | | user not authorised to request creation of a regroup | | The MCPTT user is not authorised to request creation of a regroup. | |
| 161 | | user not authorised to request removal of a regroup | | The MCPTT 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 MCPTT server determines that the group identity indicates a user or group regroup based on a preconfigured group that does not exist. | |
| 164 | | maximum number of service authorizations reached | | The number of maximum simultaneous service authorizations for the MCPTT user has been reached. | |
| 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. | |
| XXX | | call is not allowed on the preconfigured group | | Calls are not allowed on this group that is administratively designated for preconfigured group use only. | |
| YYY | | alert is not allowed on the preconfigured group | | Alerts are not allowed on this group that is administratively designated for preconfigured group use only. | |

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

###### 10.1.1.2.1.1 Client originating procedures

Upon receiving a request from an MCPTT user to establish an MCPTT prearranged group session the MCPTT client shall determine whether the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

1) should indicate to the MCPTT user that calls are not allowed on the indicated group; and

2) shall skip the remainder of this procedure.

The MCPTT client shall generate an initial SIP INVITE request by following the UE originating session procedures specified in 3GPP TS 24.229 [4], with the clarifications given below.

The MCPTT client:

1) if the MCPTT user has requested the origination of an MCPTT emergency group call or is originating an MCPTT prearranged group call and the MCPTT emergency state is already set, the MCPTT client shall comply with the procedures in subclause 6.2.8.1.1;

2) if the MCPTT user has requested the origination of an MCPTT imminent peril group call, the MCPTT client shall comply with the procedures in subclause 6.2.8.1.9;

3) if the MCPTT user has requested the origination of a broadcast group call, the MCPTT client shall comply with the procedures in subclause 6.2.8.2;

4) shall include the g.3gpp.mcptt media feature tag and the g.3gpp.icsi-ref media feature tag with the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" in the Contact header field of the SIP INVITE request according to IETF RFC 3840 [16];

5) shall include an Accept-Contact header field containing the g.3gpp.mcptt media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

6) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Preferred-Service header field according to IETF RFC 6050 [9] in the SIP INVITE request;

7) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

8) should include the "timer" option tag in the Supported header field;

9) should include the Session-Expires header field according to IETF RFC 4028 [7]. It is recommended that the "refresher" header field parameter is omitted. If included, the "refresher" header field parameter shall be set to "uac";

10) shall set the Request-URI of the SIP INVITE request to the public service identity identifying the participating MCPTT function serving the MCPTT user;

NOTE 1: The MCPTT client is configured with public service identity identifying the participating MCPTT function serving the MCPTT user.

11) 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 [4];

12) if the MCPTT client emergency group state for this group is set to "MEG 2: in-progress" or "MEG 4: confirm-pending", the MCPTT client shall include the Resource-Priority header field and comply with the procedures in subclause 6.2.8.1.2;

13) if the MCPTT client imminent peril group state for this group is set to "MIG 2: in-progress" or "MIG 4: confirm-pending" shall include the Resource-Priority header field and comply with the procedures in subclause 6.2.8.1.12;

14) shall contain in an application/vnd.3gpp.mcptt-info+xml MIME body with the <mcpttinfo> element containing the <mcptt-Params> element with:

a) the <session-type> element set to a value of "prearranged";

b) the <mcptt-request-uri> element set to the group identity;

c) the <mcptt-client-id> element set to the MCPTT client ID of the originating MCPTT client;

NOTE 2: The MCPTT client does not include the MCPTT ID of the originating MCPTT user in the body, as this will be inserted into the body of the SIP INVITE request that is sent from the originating participating MCPTT function.

d) if the group identity can be determined to be a TGI and if the MCPTT client can associate the TGI with a MCPTT group ID, the <associated-group-id> element set to the MCPTT group ID; and

e) if the MCPTT client is aware of active functional aliases, and an active functional alias is to be included in the initial SIP INVITE request, the <functional-alias-URI> set to the URI of the used functional alias;

NOTE 3: The text "can associate the TGI with a MCPTT group ID" means that the MCPTT client is able to determine that there is a constituent group of the temporary group that it is a member of.

NOTE 4: The MCPTT client is informed about temporary groups and regrouping of MCPTT groups that the user is a member of as specified in 3GPP TS 24.481 [31].

NOTE 5: If the MCPTT user selected a TGI where there are several MCPTT groups where the MCPTT user is a member, the MCPTT client selects one of those MCPTT groups.

NOTE 6: The MCPTT client learns the functional aliases that are activated for an MCPTT ID from procedures specified in subclause 9A.2.1.3.

15) shall include an SDP offer according to 3GPP TS 24.229 [4] with the clarifications given in subclause 6.2.1;

16) if an implicit floor request is required, shall indicate this as specified in subclause 6.4; and

17) shall send the SIP INVITE request towards the MCPTT server according to 3GPP TS 24.229 [4].

On receiving a SIP 2xx response to the SIP INVITE request, the MCPTT client:

1) shall interact with the user plane as specified in 3GPP TS 24.380 [5] ;

2) if the MCPTT emergency group call state is set to "MEGC 2: emergency-call-requested" or "MEGC 3: emergency-call-granted" or the MCPTT imminent peril group call state is set to "MIGC 2: imminent-peril-call-requested" or "MIGC 3: imminent-peril-call-granted", the MCPTT client shall perform the actions specified in subclause 6.2.8.1.4; and

3) may subscribe to the conference event package as specified in subclause 10.1.3.1.

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

1) if the MCPTT emergency group call state is set to "MEGC 2: emergency-call-requested" or "MEGC 3: emergency-call-granted"; or

2) if the MCPTT imminent peril group call state is set to "MIGC 2: imminent-peril-call-requested" or "MIGC 3: imminent-peril-call-granted";

the MCPTT client shall perform the actions specified in subclause 6.2.8.1.5.

On receiving a SIP INFO request where the Request-URI contains an MCPTT session ID identifying an ongoing group session, the MCPTT client shall follow the actions specified in subclause 6.2.8.1.13.

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

###### 10.1.1.2.2.1 Client originating procedures

Upon receiving a request from an MCPTT user to establish an MCPTT group session using an MCPTT group identity identifying a prearranged MCPTT group within the pre-established session, the MCPTT client shall determine whether the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

1) should indicate to the MCPTT user that calls are not allowed on the indicated group; and

2) shall skip the remainder of this procedure.

The MCPTT client shall generate a SIP REFER request outside a dialog as specified in IETF RFC 3515 [25] as updated by IETF RFC 6665 [26] and IETF RFC 7647 [27], and in accordance with the UE procedures specified in 3GPP TS 24.229 [4], with the clarifications given below.

If the user requested the private call to be a first-to-answer call and if the <allow-request-first-to-answer-call> element of the <ruleset> element is not present in the MCPTT user profile document (see the MCPTT user profile document in 3GPP TS 24.484 [50]) or is set to a value of "false", the MCPTT client shall inform the MCPTT user and shall exit this procedure.

The MCPTT client shall follow the procedures specified in subclause 10.1.2.2.2.1 with the clarification in step 3) of subclause 10.1.2.2.2.1 that:

1) the <entry> element in the application/resource-lists MIME body shall contain a "uri" attribute set to the prearranged MCPTT group identity;

2) the <session-type> element of the application/vnd.3gpp.mcptt-info MIME body in the hname "body" parameter in the headers portion of the SIP URI shall be set to a value of "prearranged"; and

3) if the MCPTT user has requested the origination of a broadcast group call, the MCPTT client shall comply with the procedures in subclause 6.2.8.2.

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

##### 10.1.1.4.2 Terminating Procedures

In the procedures in this subclause:

1) MCPTT ID in an incoming SIP INVITE request refers to the MCPTT ID of the originating user from the <mcptt-calling-user-id> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the incoming SIP INVITE request;

2) group identity in an incoming SIP INVITE request refers to the group identity from the <mcptt-request-uri> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the incoming SIP INVITE request;

3) MCPTT ID in an outgoing SIP INVITE request refers to the MCPTT ID of the called user in the <mcptt-request-uri> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the outgoing SIP INVITE request;

4) indication of required group members in a SIP 183 (Session Progress) response refers to the <required> element of the application/vnd.3gpp.mcptt-info+xml MIME body set to "true" in a SIP 183 (Session Progress) sent by the non-controlling MCPTT function of an MCPTT group;

5) emergency indication in an incoming SIP INVITE request refers to the <emergency-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body; and

6) imminent peril indication in an incoming SIP INVITE request refers to the <imminentperil-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body.

Upon receipt of a "SIP INVITE request for controlling MCPTT function of an MCPTT group", the controlling MCPTT function:

1) if unable to process the request due to a lack of resources or a risk of congestion exists, may reject the SIP INVITE request with a SIP 500 (Server Internal Error) response. The controlling MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24] and skip the rest of the steps;

NOTE 1: if the SIP INVITE request contains an emergency indication or an imminent peril indication set to a value of "true" and this is an authorised request for originating an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2, or for originating an MCPTT imminent peril group call as determined by subclause 6.3.3.1.13.5, the controlling MCPTT function can according to local policy choose to accept the request.

2) shall determine if the media parameters are acceptable and the MCPTT speech codec is offered in the SDP offer and if not reject the request with a SIP 488 (Not Acceptable Here) response and skip the rest of the steps;

3) shall reject the SIP request with a SIP 403 (Forbidden) response and not process the remaining steps if:

a) an Accept-Contact header field does not include the g.3gpp.mcptt media feature tag; or

b) an Accept-Contact header field does not include the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt";

4) if received SIP INVITE request includes an application/vnd.3gpp.mcptt-info+xml MIME body with an <emergency-ind> element included or an <imminentperil-ind> element included, shall validate the request as described in subclause 6.3.3.1.17;

5) if the group identity is associated with a group document maintained by the GMS:

NOTE 2: How the MCPTT server determines that a group identity represents a group for which a group document is stored in the GMS is an implementation detail.

a) shall retrieve the necessary group document(s) from the group management server for the group identity contained in the SIP INVITE request and carry out initial processing as specified in subclause 6.3.5.2;

a1) if the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element that is set to the value "true", shall shall reject the SIP INVITE request with a SIP 403 (Forbidden) response with the warning text set to "XXX call is not allowed on the preconfigured group" as specified in subclause 4.4 "Warning header field" and skip the rest of the steps;

b) if the group referred to by the group identity has been regrouped, shall:

i) stop processing the SIP INVITE request;

ii) shall reject the SIP INVITE request with a SIP 403 (Forbidden) response with the warning text set to "148 MCPTT group is regrouped" as specified in subclause 4.4 "Warning header field";

iii) if the group referred to by the group identity has been regrouped based on a preconfigured group, shall send a copy of the notifying SIP MESSAGE that was generated and sent per subclause 16.2.4.1 to the participating function for the MCPTT ID of the incoming SIP INVITE request and and skip the rest of the steps;

c) if the result of the initial processing in subclause 6.3.5.2 was:

i) that authorization of the MCPTT ID is required at a non-controlling MCPTT function of an MCPTT group is required, perform the actions in subclause 6.3.3.1.13.7 and do not continue with the rest of the steps in this subclause; and

ii) that a SIP 3xx, 4xx, 5xx or 6xx response to the "SIP INVITE request for controlling MCPTT function of an MCPTT group" has been sent, do not continue with the rest of the steps in this subclause;

6) if the group identity is associated with a user or group regroup based on a preconfigured group:

a) shall retrieve the stored information for the group identity;

b) if there is no stored information for the group identity, the controlling MCPTT function:

i) shall return a SIP 404 (Not Found) response with the warning text set to "163 the group identity indicated in the request does not exist" as specified in subclause 4.4 "Warning header field" and shall not continue with the rest of the steps;

NOTE 3: The user or group regroup can have been removed very recently and the client has sent the group call request prior to receiving the removal notification.

7) shall perform the actions as described in subclause 6.3.3.2.2;

8) shall maintain a local counter of the number of SIP 200 (OK) responses received from invited members and shall initialise this local counter to zero;

9) shall determine if an MCPTT group call for the group identity is already ongoing by determining if an MCPTT session identity has already been allocated for the group call and the MCPTT session is active;

10) if the SIP INVITE request contains an unauthorised request for an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2:

a) shall reject the SIP INVITE request with a SIP 403 (Forbidden) response as specified in subclause 6.3.3.1.14; and

b) shall send the SIP 403 (Forbidden) response as specified in 3GPP TS 24.229 [4] and skip the rest of the steps;

11) if the SIP INVITE request contains an unauthorised request for an MCPTT imminent peril group call as determined by subclause 6.3.3.1.13.5, shall reject the SIP INVITE request with a SIP 403 (Forbidden) response with the following clarifications:

a) shall include in the SIP 403 (Forbidden) response an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with the <imminentperil-ind> element set to a value of "false"; and

b) shall send the SIP 403 (Forbidden) response as specified in 3GPP TS 24.229 [4] and skip the rest of the steps;

12) if a Resource-Priority header field is included in the SIP INVITE request:

a) if the Resource-Priority header field is set to the value indicated for emergency calls and the SIP INVITE request does not contain an emergency indication and the in-progress emergency state of the group is set to a value of "false", shall reject the SIP INVITE request with a SIP 403 (Forbidden) response and skip the rest of the steps; or

b) if the Resource-Priority header field is set to the value indicated for imminent peril calls and the SIP INVITE request does not contain an imminent peril indication and the in-progress imminent peril state of the group is set to a value of "false", shall reject the SIP INVITE request with a SIP 403 (Forbidden) response and skip the rest of the steps;

13) if the received SIP INVITE request contains an application/vnd.3gpp.mcptt-location-info+xml MIME body with a <Report> element included in the <location-info> root element, the controlling MCPTT function can remember the location information contained in the <location-info> root element;

14) if the MCPTT group call is not ongoing then:

a) if:

i) the user identified by the MCPTT ID is not affiliated to the group identity contained in the SIP INVITE request as specified in subclause 6.3.6;

ii) the group identity contained in the SIP INVITE request is not a constituent MCPTT group ID;

iii) the received SIP INVITE request does not contain an emergency indication or imminent peril indication; or

iv) the received SIP INVITE request is an authorised request for an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2 or MCPTT imminent peril group call as determined by steps subclause 6.3.3.1.13.5 and is determined to not be eligible for implicit affiliation as specified in subclause 9.2.2.3.6;

then shall return a SIP 403 (Forbidden) response with the warning text set to "120 user is not affiliated to this group" in a Warning header field as specified in subclause 4.4, and skip the rest of the steps below;

b) if the user identified by the MCPTT ID is not authorised to initiate the prearranged group session as specified in subclause 6.3.5.4, shall send a SIP 403 (Forbidden) response with the warning text set to: "119 user is not authorised to initiate the group call" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below;

c) if the received SIP INVITE request contains an authorised request for an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2 or MCPTT imminent peril group call as determined by subclause 6.3.3.1.13.5 and the MCPTT user is eligible to be implicitly affiliated with the MCPTT group as determined in step 14) a) iv) above, shall perform the implicit affiliation as specified in subclause 9.2.2.3.7;

d) shall check if a Resource-Priority header field is included in the incoming SIP INVITE request and may apply any preferential treatment to the SIP request as specified in 3GPP TS 24.229 [4];

e) shall create a prearranged group session and allocate an MCPTT session identity for the prearranged group call, and shall handle timer TNG3 (group call timer) as specified in subclause 6.3.3.5;

f) if the group identity in the "SIP INVITE request for controlling MCPTT function of an MCPTT group" is a TGI:

i) shall for each of the constituent MCPTT groups homed on the primary MCPTT system:

A) if the controlling MCPTT function does not own the MCPTT group identified by the MCPTT group ID, then generate a SIP INVITE request towards the MCPTT server that owns the MCPTT group identity by following the procedures in subclause 10.1.1.4.1.2; and

NOTE 4: The MCPTT server that the SIP INVITE request is sent to acts as a non-controlling MCPTT function;

B) if the controlling MCPTT function owns the MCPTT group identified by the MCPTT group ID then:

I) determine the members to invite to the prearranged MCPTT group call as specified in subclause 6.3.5.5;

II) invite each group member determined in step A) above, to the group session, as specified in subclause 10.1.1.4.1.1; and

III) interact with the media plane as specified in 3GPP TS 24.380 [5] subclause 6.3; and

ii) shall for each of the constituent MCPTT groups homed on the partner MCPTT system generate a SIP INVITE request for the MCPTT group identity homed on the partner MCPTT system as specified in subclause 10.1.1.4.1.2; and

g) if the group identity in the SIP INVITE request for controlling MCPTT function of an MCPTT group is an MCPTT group ID:

i) shall determine the members to invite to the prearranged MCPTT group call as specified in subclause 6.3.5.5. If:

A) the number of affiliated members of the MCPTT group is lower than the value contained in the <on-network-minimum-number-of-affiliated-members> element of the group document as specified in 3GPP TS 24.481 [31]; or

B) the group document contains any <on-network-affiliation-to-group-required> group member as specified in 3GPP TS 24.481 [31] that is not affiliated;

then the controlling MCPTT function shall send a SIP 480 (Temporarily Unavailable) response to the MCPTT client that originated the group session with the warning text set to "112 group call abandoned due to required group members not part of the group session" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below;

ii) if necessary, shall start timer TNG1 (acknowledged call setup timer) according to the conditions stated in subclause 6.3.3.3;

iii) if the received SIP INVITE request includes an application/vnd.3gpp.mcptt-info+xml MIME body with an <emergency-ind> element set to a value of "true":

A) shall cache the information that the MCPTT user has initiated an MCPTT emergency call;

B) if the received SIP INVITE contains an alert indication set to a value of "true" and this is an authorised request for an MCPTT emergency alert meeting the conditions specified in subclause 6.3.3.1.13.1, shall cache the information that the MCPTT user has initiated an MCPTT emergency alert; and

C) if the in-progress emergency state of the group is set to a value of "false":

I) shall set the value of the in-progress emergency state of the group to "true"; and

II) shall start timer TNG2 (in-progress emergency group call timer) and handle its expiry as specified in subclause 6.3.3.1.16;

iv) if the in-progress emergency state of the group is set to a value of "false" and if the received SIP INVITE request contains an imminent peril indication set to a value of "true", the controlling MCPTT function shall:

A) shall cache the information that the MCPTT user has initiated an MCPTT imminent peril call; and

B) if the in-progress imminent peril state of the group is set to a value of "false", shall set the in-progress imminent peril state of the group to a value of "true";

v) shall invite each group member determined in step 13)g)i) above, to the group session, as specified in subclause 10.1.1.4.1.1; and

vi) shall interact with the media plane as specified in 3GPP TS 24.380 [5] subclause 6.3; and

15) if the MCPTT group call is ongoing then:

a) if:

i) the user identified by the MCPTT ID in the SIP INVITE request is not affiliated to the group identity contained in the SIP INVITE request as specified in subclause 6.3.6;

ii) the group identity contained in the SIP INVITE request is not a constituent MCPTT group ID;

iii) the received SIP INVITE request does not contain an emergency indication or imminent peril indication; or

iv) the received SIP INVITE request is an authorised request for an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2 or MCPTT imminent peril group call as determined subclause 6.3.3.1.13.5 and is determined to not be eligible for implicit affiliation as specified in subclause 9.2.2.3.6;

then shall return a SIP 403 (Forbidden) response with the warning text set to "120 user is not affiliated to this group" in a Warning header field as specified in subclause 4.4, and skip the rest of the steps below;

b) if the user identified by the MCPTT ID in the SIP INVITE request is not authorised to join the prearranged group session as specified in subclause 6.3.5.3, shall send a SIP 403 (Forbidden) response with the warning text set to "121 user is not allowed to join the group call" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below;

c) shall check if a Resource-Priority header field is included in the incoming SIP INVITE request and may apply any preferential treatment to the SIP request as specified in 3GPP TS 24.229 [4];

d) if <on-network-max-participant-count> as specified in 3GPP TS 24.481 [31] is already reached:

i) if, according to local policy, the user identified by the MCPTT ID in the SIP INVITE request is deemed to have a higher priority than an existing user in the group session, may remove a participant from the session by following subclause 10.1.1.4.4.3, and skip the next step; and

NOTE 5: The local policy for deciding whether to admit a user to a call that has reached its maximum amount of participants can include the <user-priority> and the <participant-type> of the user as well as other information of the user from the group document as specified in 3GPP TS 24.481 [31]. The local policy decisions can also include taking into account whether the imminent-peril indicator or emergency indicator was received in the SIP INVITE request.

ii) shall return a SIP 486 (Busy Here) response with the warning text set to "122 too many participants" to the originating network as specified in subclause 4.4 and skip the rest of the steps;

e) if the received SIP INVITE request contains an authorised request for an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2 or MCPTT imminent peril group call as determined by subclause 6.3.3.1.13.5 and the MCPTT user is eligible to be implicitly affiliated with the MCPTT group as determined in step 15) a) iv) above, shall perform the implicit affiliation as specified in subclause 9.2.2.3.7;

f) if the received SIP INVITE request includes an application/vnd.3gpp.mcptt-info+xml MIME body with an <emergency-ind> element set to a value of "true":

i) shall cache the information that the MCPTT user has initiated an MCPTT emergency call;

ii) if the received SIP INVITE contains an alert indication set to a value of "true" and this is an authorised request for an MCPTT emergency alert meeting the conditions specified in subclause 6.3.3.1.13.1, shall cache the information that the MCPTT user has initiated an MCPTT emergency alert;

iii) if the in-progress emergency state of the group is set to a value of "false":

A) shall set the value of the in-progress emergency state of the group to "true";

B) shall start timer TNG2 (in-progress emergency group call timer) and handle its expiry as specified in subclause 6.3.3.1.16; and

C) shall generate SIP re-INVITE requests for the MCPTT emergency group call to the other call participants of the MCPTT group as specified in subclause 6.3.3.1.6;

iv) if the in-progress imminent peril state of the group is set to a value of "true":

A) for each of the other affiliated member of the group generate a SIP MESSAGE request notification of the MCPTT user's imminent peril indication as specified in subclause 6.3.3.1.11, setting the <imminentperil-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "true"; and

B) send the SIP MESSAGE request as specified in 3GPP TS 24.229 [4]; and

v) upon receiving a SIP 200 (OK) response to the SIP re-INVITE request the controlling MCPTT function shall interact with the media plane as specified in 3GPP TS 24.380 [5];

g) if the in-progress emergency state of the group is set to a value of "false" and if the SIP INVITE request contains an imminent peril indication set to a value of "true", the controlling MCPTT function:

i) shall cache the information that the MCPTT user has initiated an MCPTT imminent peril call; and

ii) if the in-progress imminent peril state of the group is set to a value of "false":

A) shall set the in-progress imminent peril state of the group to a value of "true";

B) shall generate SIP re-INVITE requests for the MCPTT imminent peril group call to the other call participants of the MCPTT group as specified in subclause 6.3.3.1.15; and

C) upon receiving a SIP 200 (OK) response to the SIP re-INVITE request the controlling MCPTT function shall interact with the media plane as specified in 3GPP TS 24.380 [5]; and

iii) if the in-progress imminent peril state of the group is set to a value of "true":

A) for each of the other affiliated member of the group generate a SIP MESSAGE request notification of the MCPTT user's imminent peril indication as specified in subclause 6.3.3.1.11, setting the <imminentperil-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "true"; and

B) send the SIP MESSAGE request as specified in 3GPP TS 24.229 [4];

h) shall generate a SIP 200 (OK) response as specified in the subclause 6.3.3.2.3.2;

i) shall include in the SIP 200 (OK) response an SDP answer to the SDP offer in the incoming SIP INVITE request as specified in the subclause 6.3.3.2.1;

j) shall include in the SIP 200 (OK) response with the warning text set to "123 MCPTT session already exists" as specified in subclause 4.4;

k) if the received SIP re-INVITE request contains an alert indication set to a value of "true" and this is an unauthorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1, shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

l) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <imminentperil-ind> element set to a value of "true" and if the in-progress emergency state of the group is set to a value of "true", shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

NOTE 6: In this case, the request was for an imminent peril call but a higher priority MCPTT emergency call was already in progress on the group. Hence, the imminent peril call request aspect of the request is denied but the request is granted with emergency level priority.

m) shall interact with media plane as specified in 3GPP TS 24.380 [5] subclause 6.3;

NOTE 7: Resulting media plane processing is completed before the next step is performed.

n) shall send the SIP 200 (OK) response towards the inviting MCPTT client or inviting non-controlling MCPTT function according to 3GPP TS 24.229 [4];

o) shall generate a notification to the MCPTT clients, which have subscribed to the conference event package that the inviting MCPTT User has joined in the MCPTT group session, as specified in subclause 6.3.3.4;

NOTE 8: As a group document can potentially have a large content, the controlling MCPTT function can notify using content-indirection as defined in IETF RFC 4483 [32].

p) shall send a SIP NOTIFY request to each MCPTT client according to 3GPP TS 24.229 [4];

q) Upon receiving a SIP ACK to the above SIP 200 (OK) response and the SIP 200 (OK) response contained a Warning header field as specified in subclause 4.4 with the warning text containing the mcptt-warn-code set to "149", shall follow the procedures in subclause 6.3.3.1.18; and

r) shall not continue with the rest of the subclause.

Upon receiving a SIP 183 (Session Progress) response to the SIP INVITE request specified in subclause 10.1.1.4.1 containing a P-Answer-State header field with the value "Unconfirmed" as specified in IETF RFC 4964 [34], the timer TNG1 (acknowledged call setup timer) is not running, the controlling MCPTT function supports media buffering and the SIP final response is not yet sent to the inviting MCPTT client:

1) shall generate a SIP 200 (OK) response to SIP INVITE request as specified in the subclause 6.3.3.2.3.2;

2) shall include the warning text set to "122 too many participants" as specified in subclause 4,4 in the SIP 200 (OK) response, if the prearranged MCPTT group has more than <on-network-max-participant-count> members as specified in 3GPP TS 24.481 [31];

3) shall include in the SIP 200 (OK) response an SDP answer to the SDP offer in the incoming SIP INVITE request as specified in the subclause 6.3.3.2.1;

4) shall include a P-Answer-State header field with the value "Unconfirmed";

5) if the SIP INVITE request contains an alert indication set to a value of "true" and this is an unauthorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1, shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

6) if the received SIP INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <imminentperil-ind> element set to a value of "true" and if the in-progress emergency state of the group is set to a value of "true", shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

7) shall interact with the media plane as specified in 3GPP TS 24.380 [5] subclause 6.3;

NOTE 9: Resulting user plane processing is completed before the next step is performed.

8) shall send the SIP 200 (OK) response towards the inviting MCPTT client according to 3GPP TS 24.229 [4];

9) shall generate a notification to the MCPTT clients, which have subscribed to the conference event package that the inviting MCPTT User has joined in the MCPTT group session, as specified in subclause 6.3.3.4; and

NOTE 10: As a group document can potentially have a large content, the controlling MCPTT function can notify using content-indirection as defined in IETF RFC 4483 [32].

10) shall send a SIP NOTIFY request to each MCPTT client according to 3GPP TS 24.229 [4].

Upon receiving a SIP 183 (Session Progress) response for a SIP INVITE request as specified in subclause 10.1.1.4.1.2 containing an indication of required group members, the timer TNG1 (acknowledged call setup timer) is running and all SIP 200 (OK) responses have been received to all SIP INVITE requests sent to MCPTT clients specified in subclause 10.1.1.4.1.1, then the controlling MCPTT function shall wait until the SIP 200 (OK) response has been received to the SIP INVITE request specified in subclause 10.1.1.4.1.2 before generating a SIP 200 (OK) response to the "SIP INVITE request for controlling MCPTT function of an MCPTT group".

Upon receiving a SIP 200 (OK) response for a SIP INVITE request as specified in subclause 10.1.1.4.1 that was sent to an affiliated and <on-network-required> group member as specified in 3GPP TS 24.481 [31]; and

1) if the MCPTT ID in the SIP 200 (OK) response matches to the MCPTT ID in the corresponding SIP INVITE request;

2) there are no outstanding SIP 200 (OK) responses to SIP INVITE requests which were sent to affiliated and <on-network-required> group members as specified in 3GPP TS 24.481 [31]; and

3) there is no outstanding SIP 200 (OK) response to a SIP INVITE request sent in subclause 10.1.1.4.1.2 where the SIP 183 (Session Progress) response contained an indication of required group members;

the controlling MCPTT function:

1) shall stop timer TNG1 (acknowledged call setup timer) as described in subclause 6.3.3.3;

2) shall generate SIP 200 (OK) response to the SIP INVITE request as specified in the subclause 6.3.3.2.3.2 before continuing with the rest of the steps;

3) shall include the warning text set to "122 too many participants" as specified in subclause 4.4 in the SIP 200 (OK) response, if all members were not invited because the prearranged MCPTT group has been exceeded the <on-network-max-participant-count> members as specified in 3GPP TS 24.481 [31];

4) shall include in the SIP 200 (OK) response an SDP answer to the SDP offer in the incoming SIP INVITE request as specified in the subclause 6.3.3.2.1;

5) shall interact with the media plane as specified in 3GPP TS 24.380 [5] subclause 6.3;

NOTE 11: Resulting media plane processing is completed before the next step is performed.

6) shall send a SIP 200 (OK) response to the inviting MCPTT client according to 3GPP TS 24.229 [4];

7) shall generate a notification to the MCPTT clients, which have subscribed to the conference event package that the inviting MCPTT user has joined in the MCPTT group session, as specified in subclause 6.3.3.4; and

NOTE 12: As a group document can potentially have a large content, the controlling MCPTT function can notify using content-indirection as defined in IETF RFC 4483 [32].

8) shall send the SIP NOTIFY request to the MCPTT clients according to 3GPP TS 24.229 [4].

Upon:

1) receiving a SIP 200 (OK) response for a SIP INVITE request as specified in subclause 10.1.1.4.1;

2) the timer TNG1 (acknowledged call setup timer) is not running;

3) the local counter of the number of SIP 200 (OK) responses received from invited members is equal to the value of the <on-network-minimum-number-to-start> element of the group document;

4) the controlling MCPTT function supports media buffering; and

5) the SIP final response has not yet been sent to the inviting MCPTT client;

the controlling MCPTT function according to local policy:

1) shall generate SIP 200 (OK) response to the SIP INVITE request as specified in the subclause 6.3.3.2.2;

2) shall include the warning text set to "122 too many participants" as specified in subclause 4.4 in the SIP 200 (OK) response, if all members were not invited because the prearranged MCPTT group has exceeded the <max-participant-count> members as specified in 3GPP TS 24.481 [31];

3) shall include in the SIP 200 (OK) response an SDP answer to the SDP offer in the incoming SIP INVITE request as specified in the subclause 6.3.3.2.1;

4) if the SIP INVITE request contains an alert indication set to a value of "true" and this is an unauthorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1, shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

5) if the received SIP INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <imminentperil-ind> element set to a value of "true" and if the in-progress emergency state of the group is set to a value of "true", shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

6) shall interact with the media plane as specified in 3GPP TS 24.380 [5] subclause 6.3;

NOTE 13: Resulting media plane processing is completed before the next step is performed.

7) shall send a SIP 200 (OK) response to the inviting MCPTT client according to 3GPP TS 24.229 [4];

8) shall generate a notification to the MCPTT clients, which have subscribed to the conference event package that the inviting MCPTT user has joined in the MCPTT group session, as specified in subclause 6.3.3.4; and

NOTE 14: As a group document can potentially have a large content, the controlling MCPTT function can notify using content-indirection as defined in IETF RFC 4483 [32].

9) shall send the SIP NOTIFY request to the MCPTT clients according to 3GPP TS 24.229 [4].

Upon expiry of timer TNG1 (acknowledged call setup timer), if there are outstanding SIP 200 (OK) responses to SIP INVITE requests sent to affiliated and <on-network-required> group members as specified in 3GPP TS 24.481 [31], the controlling MCPTT function shall follow the procedures specified in subclause 6.3.3.3*.*

If timer TNG1 (acknowledged call setup timer) is running and a final SIP 4xx, 5xx or 6xx response is received from an affiliated and <on-network-required> group member as specified in 3GPP TS 24.481 [31], the controlling MCPTT function shall follow the relevant procedures specified in subclause 6.3.3.3*.*

If:

1) timer TNG1 (acknowledged call setup timer) is not running;

2) the local counter of the number of SIP 200 (OK) responses received from invited members is equal to the value of the <on-network-minimum-number-to-start> element of the group document; and

3) a final SIP 4xx, 5xx or 6xx response is received from an invited MCPTT client;

then the controlling MCPTT function shall perform one of the following based on policy:

1) send the SIP final response towards the inviting MCPTT client, according to 3GPP TS 24.229 [4], if a SIP final response was received from all the other invited MCPTT clients and the SIP 200 (OK) response is not yet sent; or

2) remove the invited MCPTT client from the MCPTT Session as specified in subclause 6.3.3.1.5, if a SIP final response other than 2xx or 3xx was received from all the invited MCPTT clients and the SIP 200 (OK) response is already sent. The controlling MCPTT function may invite an additional member of the prearranged MCPTT group as specified in subclause 10.1.1.4.1 that has not already been invited, if the prearranged MCPTT group has more than <on-network-max-participant-count> members as specified in 3GPP TS 24.481 [31], and all members have not yet been invited.

If the group identity in the "SIP INVITE request for controlling MCPTT function of an MCPTT group" is a TGI and constituent MCPTT groups were invited as specified in subclause 10.1.1.4.1.2 and,

1) if all non-controlling MCPTT functions hosting the constituent MCPTT groups have responded with a SIP 2xx, SIP 3xx, SIP 4xx, SIP 5xx or SIP 6xx responses to the "SIP INVITE request for non-controlling MCPTT function of an MCPTT group"; and

2) if all expected SIP INFO requests containing a floor request are received;

then the controlling MCPTT function shall indicate to the media plane that all final responses are received.

NOTE 15: If the SIP 200 (OK) response to the SIP INVITE request for non-controlling MCPTT function of an MCPTT group included the application/vnd.3gpp.mcptt-info+xml MIME body with the <floor-state> element set to "floor-taken", the controlling MCPTT function expects that the non-controlling MCPTT functions sends a SIP INFO request containing a floor request.

Upon receiving a SIP ACK to the SIP 200 (OK) response sent towards the inviting MCPTT client, and the SIP 200 (OK) response was sent with the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4, the controlling MCPTT function shall follow the procedures in subclause 6.3.3.1.18.

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

###### 10.1.2.2.1.1 Procedure for initiating a chat MCPTT group session and procedure for joining a chat MCPTT group session

Upon receiving a request from an MCPTT user to initiate or join an MCPTT group session using an MCPTT group identity, identifying a chat MCPTT group, the MCPTT client shall determine whether the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

1) should indicate to the MCPTT user that calls are not allowed on the indicated group; and

2) shall skip the remainder of this procedure.

The MCPTT client shall generate an initial SIP INVITE request by following the UE originating session procedures specified in 3GPP TS 24.229 [4], with the clarifications given below.

The MCPTT client:

1) if the MCPTT user has requested the origination of an MCPTT emergency group call or is originating an MCPTT chat group call and the MCPTT emergency state is already set, the MCPTT client shall comply with the procedures in subclause 6.2.8.1.1;

2) if the MCPTT user has requested the origination of an MCPTT imminent peril group call, shall comply with the procedures in subclause 6.2.8.1.9;

3) shall include the g.3gpp.mcptt media feature tag and the g.3gpp.icsi-ref media feature tag with the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" in the Contact header field of the SIP INVITE request according to IETF RFC 3840 [16];

4) shall include an Accept-Contact header field containing the g.3gpp.mcptt media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

5) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Preferred-Service header field according to IETF RFC 6050 [9] in the SIP INVITE request;

6) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

7) should include the "timer" option tag in the Supported header field;

8) should include the Session-Expires header field according to IETF RFC 4028 [7]. It is recommended that the refresher parameter is omitted. If included, the refresher parameter shall be set to "uac";

9) shall set the Request-URI of the SIP INVITE request to the public service identity identifying the participating MCPTT function serving the MCPTT user;

NOTE 1: The MCPTT client is configured with public service identity identifying the participating MCPTT function serving the MCPTT user.

10) 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 [4];

11) if the MCPTT client emergency group state for this group is set to "MEG 2: in-progress" or "MEG 4: confirm-pending", the MCPTT client shall comply with the procedures in subclause 6.2.8.1.2;

12) if the MCPTT client imminent peril group state for this group is set to "MIG 2: in-progress" or "MIG 4: confirm-pending" shall include the Resource-Priority header field and comply with the procedures in subclause 6.2.8.1.12;

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

a) the <session-type> element set to a value of "chat";

b) the <mcptt-request-uri> element set to the group identity;

c) the <mcptt-client-id> element set to the MCPTT client ID of the originating MCPTT client; and

d) if the MCPTT client is aware of active functional aliases, and an active functional alias is to be included in the initial SIP INVITE request, the <functional-alias-URI> set to the URI of the used functional alias;

NOTE 2: The MCPTT ID of the originating MCPTT user is not included in the body, as this will be inserted into the body of the SIP INVITE request that is sent by the originating participating MCPTT function.

14) shall include in the SIP INVITE request an SDP offer according to 3GPP TS 24.229 [4] with the clarifications specified in subclause 6.2.1;

15) if an implicit floor request is required, shall indicate this as specified in subclause 6.4; and

16) shall send the SIP INVITE request according to 3GPP TS 24.229 [4].

On receiving a SIP 2xx response to the SIP INVITE request, the MCPTT client:

1) shall interact with the user plane as specified in 3GPP TS 24.380 [5];

2) if the MCPTT emergency group call state is set to "MEGC 2: emergency-call-requested" or "MEGC 3: emergency-call-granted" or the MCPTT imminent peril group call state is set to "MIGC 2: imminent-peril-call-requested" or "MIGC 3: imminent-peril-call-granted", the MCPTT client shall perform the actions specified in subclause 6.2.8.1.4; and

3) may subscribe to the conference event package as specified in subclause 10.1.3.1.

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

1) if the MCPTT emergency group call state is set to "MEGC 2: emergency-call-requested" or "MEGC 3: emergency-call-granted"; or

2) if the MCPTT imminent peril group call state is set to "MIGC 2: imminent-peril-call-requested" or "MIGC 3: imminent-peril-call-granted";

the MCPTT client shall perform the actions specified in subclause 6.2.8.1.5.

On receiving a SIP INFO request where the Request-URI contains an MCPTT session ID identifying an ongoing group session, the MCPTT client shall follow the actions specified in subclause 6.2.8.1.13.

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

###### 10.1.2.2.2.1 Procedure for initiating a chat MCPTT group session and procedure for joining a chat MCPTT group session

Upon receiving a request from an MCPTT user to initiate or join an MCPTT group session using an MCPTT group identity identifying a chat MCPTT group within the pre-established session, the MCPTT client shall determine whether the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

1) should indicate to the MCPTT user that calls are not allowed on the indicated group; and

2) shall skip the remainder of this procedure.

The MCPTT client shall generate a SIP REFER request outside a dialog as specified in IETF RFC 3515 [25] as updated by IETF RFC 6665 [26] and IETF RFC 7647 [27], and in accordance with the UE procedures specified in 3GPP TS 24.229 [4], with the clarifications given below.

The MCPTT client:

1) shall set the Request URI of the SIP REFER request to the session identity of the pre-established session;

2) shall set the Refer-To header field of the SIP REFER request as specified in IETF RFC 3515 [25] with a Content-ID ("cid") Uniform Resource Locator (URL) as specified in IETF RFC 2392 [62] that points to an application/resource-lists MIME body as specified in IETF RFC 5366 [20], and with the Content-ID header field set to this "cid" URL;

3) shall include in the application/resource-lists MIME body a single <entry> element containing a "uri" attribute set to the chat group identity, extended with the following parameters in the headers portion of the SIP URI:

NOTE 1: Characters that are not formatted as ASCII characters are escaped in the following parameters in the headers portion of the SIP URI.

a) the Accept-Contact header field containing the g.3gpp.mcptt media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

b) 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.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6]; and

c) an hname "body" parameter populated with:

i) an application/sdp MIME body containing an SDP offer, if the session parameters of the pre-established session require modification or if implicit floor control is required, according to the conditions specified in subclause 6.4;

ii) an application/vnd.3gpp.mcptt-info MIME body with:

A) the <session-type> element set to a value of "chat";

B) the <mcptt-client-id> element set to the MCPTT client ID of the originating MCPTT client; and

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

iii) if:

A) implicit floor control is required; and

B) an application/vnd.3gpp.mcptt-info MIME body with the <allow-location-info-when-talking> element of the <ruleset> element of the MCPTT user profile document identified by the MCPTT ID of the calling MCPTT user (see the MCPTT user profile document in 3GPP TS 24.484 [50]) is set to a value of "true";

then shall include an application/vnd.3gpp.mcptt-location-info+xml MIME body with a <Report> element included in the <location-info> root element;

NOTE 2: The MCPTT client learns the functional aliases that are activated for an MCPTT ID from procedures specified in subclause 9A.2.1.3.

4) if the MCPTT user has requested the origination of an MCPTT emergency group call or is originating an MCPTT group call and the MCPTT emergency state is already set:

a) if this is an authorised request for an MCPTT emergency group call as determined by the procedures of subclause 6.2.8.8.1.8, shall comply with the procedures in subclause 6.2.8.1.1; and

b) if this is an unauthorised request for an MCPTT emergency group call as determined in step a) above, should indicate to the MCPTT user that they are not authorised to initiate an MCPTT emergency group call;

5) if the MCPTT client emergency group state for this group is set to "MEG 2: in-progress" or "MEG 4: confirm-pending", shall include the Resource-Priority header field and comply with the procedures in subclause 6.2.8.1.2;

6) if the MCPTT user has requested the origination of an MCPTT imminent peril group call:

a) if this is an authorised request for an MCPTT imminent peril group call as determined by the procedures of subclause 6.2.8.8.1.8, shall comply with the procedures in subclause 6.2.8.1.9; and

b) if this is an unauthorised request for an MCPTT imminent peril group call as determined in step a) above, should indicate to the MCPTT user that they are not authorised to initiate an MCPTT imminent peril group call;

7) if the MCPTT client imminent peril group state for this group is set to "MIG 2: in-progress" or "MIG 4: confirm-pending" shall include the Resource-Priority header field and comply with the procedures in subclause 6.2.8.1.12;

8) shall include a P-Preferred-Service header field set to the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), according to IETF RFC 6050 [9];

9) shall include the following according to IETF RFC 4488 [22]:

a) the option tag "norefersub" in the Supported header field; and

b) the value "false" in the Refer-Sub header field.

10) shall include a Target-Dialog header field as specified in IETF RFC 4538 [23] identifying the pre-established session;

11) shall include the g.3gpp.mcptt media feature tag in the Contact header field of the SIP REFER request according to IETF RFC 3840 [16]; and

12) shall send the SIP REFER request according to 3GPP TS 24.229 [4].

On receiving a final SIP 2xx response to the SIP REFER request, the MCPTT client:

1) shall interact with the media plane as specified in 3GPP TS 24.380 [5].

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

1) if the MCPTT emergency group call state is set to "MEGC 2: emergency-call-requested" or "MEGC 3: emergency-call-granted"; or

2) if the MCPTT imminent peril group call state is set to "MIGC 2: imminent-peril-call-requested" or "MIGC 3: imminent-peril-call-granted";

the MCPTT client shall perform the actions specified in subclause 6.2.8.1.5 and shall skip the remaining steps.

On receiving a SIP re-INVITE request within the pre-established session targeted by the sent SIP REFER request, and if the sent SIP REFER request was a request for an MCPTT emergency group call or an MCPTT imminent peril group call, the MCPTT client:

1) shall perform the actions specified in subclause 6.2.8.1.16;

2) shall check if a Resource-Priority header field is included in the incoming SIP re-INVITE request and may perform further actions outside the scope of this specification to act upon an included Resource-Priority header field as specified in 3GPP TS 24.229 [4];

3) shall accept the SIP re-INVITE request and generate a SIP 200 (OK) response according to rules and procedures of 3GPP TS 24.229 [4];

4) shall include an SDP answer in the SIP 200 (OK) response to the SDP offer in the incoming SIP re-INVITE request according to 3GPP TS 24.229 [4], based upon the parameters already negotiated for the pre-established session; and

5) shall send the SIP 200 (OK) response towards the participating MCPTT function according to rules and procedures of 3GPP TS 24.229 [4].

On call release by interaction with the media plane as specified in subclause 9.2.2 of 3GPP TS 24.380 [5] if the sent SIP REFER request was a request for an MCPTT emergency group call or an MCPTT imminent peril group call, the MCPTT client shall perform the procedures specified in subclause 6.2.8.1.17.

On receiving a SIP INFO request where the Request-URI contains an MCPTT session ID identifying an ongoing group session, the MCPTT client shall follow the actions specified in subclause 6.2.8.1.13.

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

###### 10.1.2.4.1.1 Procedure for establishing an MCPTT chat session and procedure for joining an established MCPTT chat session

In the procedures in this subclause:

1) MCPTT ID in an incoming SIP INVITE request refers to the MCPTT ID of the originating user from the <mcptt-calling-user-id> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the incoming SIP INVITE request;

2) group identity in an incoming SIP INVITE request refers to the group identity from the <mcptt-request-uri> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the incoming SIP INVITE request;

3) MCPTT ID in an outgoing SIP INVITE request refers to the MCPTT ID of the called user in the <mcptt-request-uri> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the outgoing SIP INVITE request;

4) emergency indication in an incoming SIP INVITE request refers to the <emergency-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body; and

5) alert indication in an incoming SIP INVITE request refers to the <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body.

Upon receipt of a "SIP INVITE request for controlling MCPTT function of an MCPTT group" containing a group identity identifying a chat MCPTT group, the controlling MCPTT function:

1) if unable to process the request due to a lack of resources or a risk of congestion exists, may reject the SIP INVITE request with a SIP 500 (Server Internal Error) response. The controlling MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24] and skip the rest of the steps;

NOTE 1: If the SIP INVITE request contains an emergency indication set to a value of "true", the controlling MCPTT function can by means beyond the scope of this specification choose to accept the request.

2) shall reject the SIP request with a SIP 403 (Forbidden) response and not process the remaining steps if:

a) an Accept-Contact header field does not include the g.3gpp.mcptt media feature tag;

b) an Accept-Contact header field does not include the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt"; or

c) the isfocus media feature tag is present in the Contact header field;

2A) if the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element that is set to the value "true", shall shall reject the SIP INVITE request with a SIP 403 (Forbidden) response with the warning text set to "XXX call is not allowed on the preconfigured group" as specified in subclause 4.4 "Warning header field" and skip the rest of the steps;

3) if received SIP INVITE request includes an application/vnd.3gpp.mcptt-info+xml MIME body with an <emergency-ind> element included or an <imminentperil-ind> element included, shall validate the request as described in subclause 6.3.3.1.17;

4) shall retrieve the necessary group document(s) from the group management server for the group identity contained in the SIP INVITE request and carry out initial processing as specified in subclause 6.3.5.2 and continue with the rest of the steps if the checks in subclause 6.3.5.2 succeed;

5) if the MCPTT user identified by the MCPTT ID in the SIP INVITE request is not affiliated with the MCPTT group identified by the group identity in the SIP INVITE request as determined by the procedures of subclause 6.3.6:

a) shall check if the MCPTT user is eligible to be implicitly affiliated with the MCPTT chat group as determined by subclause 9.2.2.3.6; and

b) if the MCPTT user is not eligible for implicit affiliation, shall reject the SIP INVITE request with a SIP 403 (Forbidden) response with the warning text set to "120 user is not affiliated to this group" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below;

6) if the SIP INVITE request contains unauthorised request for an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2:

a) shall reject the SIP INVITE request with a SIP 403 (Forbidden) response as specified in subclause 6.3.3.1.14; and

b) shall send the SIP 403 (Forbidden) response as specified in 3GPP TS 24.229 [4] and skip the rest of the steps;

7) if the SIP INVITE request contains an unauthorised request for an MCPTT imminent peril group call as determined by subclause 6.3.3.1.13.6, shall reject the SIP INVITE request with a SIP 403 (Forbidden) response with the following clarifications:

a) shall include in the SIP 403 (Forbidden) response an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with the <imminentperil-ind> element set to a value of "false"; and

b) shall send the SIP 403 (Forbidden) response as specified in 3GPP TS 24.229 [4] and skip the rest of the steps;

8) if a Resource-Priority header field is included in the SIP INVITE request:

a) if the Resource-Priority header field is set to the value indicated for emergency calls and the SIP INVITE request does not contain an emergency indication and the in-progress emergency state of the group is set to a value of "false", shall reject the SIP INVITE request with a SIP 403 (Forbidden) response and skip the remaining steps; and

b) if the Resource-Priority header field is set to the value indicated for imminent peril calls and the SIP INVITE request does not contain an imminent peril indication and the in-progress imminent peril state of the group is set to a value of "false", shall reject the SIP INVITE request with a SIP 403 (Forbidden) response; and skip the remaining steps;

9) shall determine if the media parameters are acceptable and the MCPTT speech codec is offered in the SDP offer and if not reject the request with a SIP 488 (Not Acceptable Here) response and skip the rest of the steps;

10) shall create a chat group session and allocate an MCPTT session identity for the chat group session if the MCPTT chat group session identity does not already exist, and may handle timer TNG3 (group call timer) as specified in subclause 6.3.3.5;

11) if the chat group session is ongoing and the <on-network-max-participant-count> as specified in 3GPP TS 24.481 [31] is already reached:

a) if, according to local policy, the user identified by the MCPTT ID in the SIP INVITE request is deemed to have a higher priority than an existing user in the chat group session, may remove a participant from the session by following subclause 10.1.1.4.4.3, and skip the next step; and

NOTE 2: The local policy for deciding whether to admit a user to a call that has reached its maximum amount of participants can include the <user-priority> and the <participant-type> of the user as well as other information of the user from the group document as specified in 3GPP TS 24.481 [31]. The local policy decisions can also include taking into account whether the imminent-peril indicator or emergency indicator was received in the SIP INVITE request.

b) shall return a SIP 486 (Busy Here) response with the warning text set to "122 too many participants" to the originating network as specified in subclause 4.4 Otherwise, continue with the rest of the steps;

12) if the received SIP INVITE request was determined to be eligible for implicit affiliation in step 5) and if subclause 9.2.2.3.7 was not previously invoked in the present subclause, shall perform the implicit affiliation as specified in subclause 9.2.2.3.7;

13) if the SIP INVITE request contains an emergency indication set to a value of "true" or the in-progress emergency state of the group to "true" the controlling MCPTT function shall:

a) validate that the SIP INVITE request includes a Resource-Priority header field populated with the values for an MCPTT emergency group call as specified in subclause 6.3.3.1.19, and if not:

i) perform the actions specified in subclause 6.3.3.1.8;

ii) send the SIP UPDATE request generated in subclause 6.3.3.1.8 towards the initiator of the SIP INVITE request according to 3GPP TS 24.229 [4]; and

iii) upon receiving a SIP 200 (OK) response to the SIP UPDATE request sent in subclause 6.3.3.1.8, proceed with the rest of the steps.

NOTE 3: Verify that the Resource-Priority header is included and properly populated for both ongoing and newly- entered in-progress emergency states of the specified group.

b) if the in-progress emergency state of the group is set to a value of "true" and the MCPTT user is indicating a new emergency indication:

i) for each of the other affiliated members of the group generate a SIP MESSAGE request notification of the MCPTT user's emergency indication as specified in subclause 6.3.3.1.11 with the following clarifications:

A) set the <emergency-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "true";

B) if the received SIP INVITE contains an alert indication set to a value of "true" and this is an authorised request for an MCPTT emergency alert meeting the conditions specified in subclause 6.3.3.1.13.1, perform the procedures specified in subclause 6.3.3.1.12; and

C) send the SIP MESSAGE request as specified in 3GPP TS 24.229 [4];

ii) cache the information that the MCPTT user has initiated an MCPTT emergency call; and

iii) if the SIP INVITE request contains an authorised request for an MCPTT emergency alert as determined in step i) B) above, cache the information that the MCPTT user has initiated an MCPTT emergency alert; and

c) if the in-progress emergency state of the group is set to a value of "false":

i) shall set the value of the in-progress emergency state of the group to "true";

ii) shall start timer TNG2 (in-progress emergency group call timer) and handle its expiry as specified in subclause 6.3.3.1.16;

iii) shall generate SIP re-INVITE requests for the MCPTT emergency group call to the other affiliated and joined participants of the chat MCPTT group as specified in subclause 6.3.3.1.6;

iv) shall generate SIP INVITE requests for the MCPTT emergency group call to the affiliated but not joined members of the chat MCPTT group as specified in subclause 6.3.3.1.7;

A) for each affiliated but not joined member shall send the SIP INVITE request towards the MCPTT client as specified in 3GPP TS 24.229 [4]; and

B) upon receiving a SIP 200 (OK) response to the SIP INVITE request the controlling MCPTT function shall interact with the media plane as specified in 3GPP TS 24.380 [5];

v) shall cache the information that the MCPTT user has initiated an MCPTT emergency call; and

vi) if the <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body is set to "true" and is an authorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1, shall cache the information that the MCPTT user has initiated an MCPTT emergency alert; and

vii) if the in-progress imminent peril state of the group is set to a value of "true", shall set it to a value of "false";

14) if the in-progress emergency state of the group is set to a value of "false" and if the SIP INVITE request contains an imminent peril indication set to a value of "true" or the in-progress imminent peril state of the group is set to "true", the controlling MCPTT function shall:

a) validate that the SIP INVITE request includes a Resource-Priority header field populated with the values for an MCPTT imminent peril group call as specified in subclause 6.3.3.1.19, and if not:

i) perform the actions specified in subclause 6.3.3.1.8;

ii) send the SIP UPDATE request generated in subclause 6.3.3.1.8 towards the initiator of the SIP INVITE request according to 3GPP TS 24.229 [4]; and

iii) upon receiving a SIP 200 (OK) response to the SIP UPDATE request sent in subclause 6.3.3.1.8 proceed with the rest of the steps.

NOTE 4: Verify that the Resource-Priority header is included and properly populated for both ongoing and newly- entered in-progress imminent peril states of the specified group.

b) if the in-progress imminent peril state of the group is set to a value of "true" and the MCPTT user is indicating a new imminent peril indication:

i) for each of the other affiliated member of the group generate a SIP MESSAGE request notification of the MCPTT user's imminent peril indication as specified in subclause 6.3.3.1.11 with the following clarifications;

A) set the <imminentperil-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "true"; and

B) send the SIP MESSAGE request as specified in 3GPP TS 24.229 [4]; and

ii) cache the information that the MCPTT user has initiated an MCPTT imminent peril call; and

c) if the in-progress imminent peril state of the group is set to a value of "false":

i) shall set the value of the in-progress imminent peril state of the group to "true";

ii) shall generate SIP re-INVITE requests for the MCPTT imminent peril group call to the other affiliated and joined participants of the chat MCPTT group as specified in subclause 6.3.3.1.15;

iii) shall generate SIP INVITE requests for the MCPTT imminent peril call to the affiliated but not joined members of the chat MCPTT group as specified in subclause 6.3.3.1.7;

A) for each affiliated but not joined member shall send the SIP INVITE request towards the MCPTT client as specified in 3GPP TS 24.229 [4]; and

B) Upon receiving a SIP 200 (OK) response to the SIP INVITE request the controlling MCPTT function shall interact with the media plane as specified in 3GPP TS 24.380 [5]; and

iv) shall cache the information that the MCPTT user has initiated an MCPTT imminent peril call;

15) shall accept the SIP request and generate a SIP 200 (OK) response to the SIP INVITE request according to 3GPP TS 24.229 [4];

16) shall include in the SIP 200 (OK) response an SDP answer according to 3GPP TS 24.229 [4] with the clarifications specified in subclause 6.3.3.2.1 unless the procedures of subclause 6.3.3.1.8 were performed in step 13)a) or step 14)a) above;

17) should include the Session-Expires header field and start supervising the SIP session according to IETF RFC 4028 [7]. It is recommended that the "refresher" header field parameter is omitted. If included, the "refresher" header field parameter shall be set to "uac";

18) shall include the "timer" option tag in a Require header field;

19) shall include the following in a Contact header field:

a) the g.3gpp.mcptt media feature tag;

b) the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt";

c) the MCPTT session identity; and

d) the media feature tag isfocus;

20) shall include the "tdialog" option tag in a Supported header field according to IETF RFC 4538 [23];

21) if the SIP INVITE request contains an alert indication set to a value of "true" and this is an unauthorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1, shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

22) if the received SIP INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <imminentperil-ind> element set to a value of "true" and if the in-progress emergency state of the group is set to a value of "true", shall include in the SIP 200 (OK) response the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4;

NOTE 5: In this case, the request was for an imminent peril call but a higher priority MCPTT emergency call was already in progress on the group. Hence, the imminent peril call request aspect of the request is denied but the request is granted with emergency level priority.

23) shall interact with media plane as specified in 3GPP TS 24.380 [5];

24) shall send the SIP 200 (OK) response to the MCPTT client according to 3GPP TS 24.229 [4]; and

25) if the chat group session was already ongoing and if at least one of the participants has subscribed to the conference event package, shall send a SIP NOTIFY request to all participants with a subscription to the conference event package as specified in subclause 10.1.3.4.2.

Upon receiving a SIP ACK to the SIP 200 (OK) response sent towards the inviting MCPTT client, and the SIP 200 (OK) response was sent with the warning text set to "149 SIP INFO request pending" in a Warning header field as specified in subclause 4.4, the controlling MCPTT function shall follow the procedures in subclause 6.3.3.1.18.

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

##### 10.1.4.2.1 Remote selected group change initiation

Upon receiving a request from the MCPTT user to send a group selection change request to change the selected group of a targeted MCPTT user to a specific MCPTT group, the MCPTT client:

1) if:

a) the <RemoteGroupSelectionURIList> element does not exist in the MCPTT user profile document with one or more <entry> elements (see the MCPTT user profile document in 3GPP TS 24.484 [50]); or

b) the <RemoteGroupSelectionURIList> element exists in the MCPTT user profile document and the MCPTT ID of the targeted MCPTT user does not match with one of the <entry> elements of the <RemoteGroupSelectionURIList> element of the MCPTT user profile document (see the MCPTT user profile document in 3GPP TS 24.484 [50]);

then:

a) should indicate to the requesting MCPTT user that they are not authorised to change the selected MCPTT group of the targeted MCPTT user; and

b) shall skip the rest of the steps of the present subclause;

1A) shall determine whether the group document associated with the specific MCPTT group contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

a) should indicate to the MCPTT user that calls are not allowed on the specific MCPTT group; and

b) shall skip the remainder of this procedure;

2) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33] with the following clarifications:

a) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Preferred-Service header field according to IETF RFC 6050 [9] in the SIP MESSAGE request;

b) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

c) 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 [4]; and

d) shall include an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with the <anyExt> element containing:

i) the <mcptt-request-uri> set to the MCPTT group identity to be selected by the targeted MCPTT user; and

ii) the <request-type> element set to a value of "group-selection-change-request"; and

e) shall insert in the SIP MESSAGE request a MIME resource-lists body with the MCPTT ID of the targeted MCPTT user, according to rules and procedures of IETF RFC 5366 [20];

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

4) shall send the SIP MESSAGE request according to rules and procedures of 3GPP TS 24.229 [4].

Upon receipt of a SIP 4xx, 5xx or 6xx response to the SIP MESSAGE request, should indicate to the MCPTT user the failure of the sent group selection change request and not continue with the rest of the steps.

Upon receiving a "SIP MESSAGE request for group selection change response for terminating client", the MCPTT client:

1) shall determine the success or failure of the sent group selection change request from the value of the <selected-group-change-outcome> element contained in the <anyExt> element of the <mcptt-Params> element of the <mcpttinfo> element of the application/vnd.3gpp.mcptt-info+xml MIME body included in the received SIP MESSAGE request; and

2) should indicate to the MCPTT user the success or failure of the sent group selection change request.

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

#### 10.1.4.4 Controlling MCPTT function procedures

Upon receiving:

- a "SIP MESSAGE request for group selection change request for controlling MCPTT function"; or

- a "SIP MESSAGE request for group selection change response for controlling MCPTT function";

the controlling MCPTT 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 MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24]. Otherwise, continue with the rest of the steps;

2) shall reject the SIP request with a SIP 403 (Forbidden) response and not process the remaining steps if an Accept-Contact header field does not include the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt";

2A) if the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element that is set to the value "true", shall shall reject the SIP request with a SIP 403 (Forbidden) response with the warning text set to "XXX call is not allowed on the preconfigured group" as specified in subclause 4.4 "Warning header field" and skip the rest of the steps;

3) if there is a <request-type> element set to a value of "group-selection-change-request" contained in the <anyExt> element in the <mcptt-Params> element contained in the <mcpttinfo> root element contained in the application/vnd.3gpp. mcptt-info+xml MIME body in the received SIP MESSAGE request:

a) if the MCPTT user identified by the MCPTT ID in the application/resource-lists MIME body contained in the SIP MESSAGE request is not affiliated with the MCPTT group identified by the <mcptt-request-uri> in the application/vnd.3gpp. mcptt-info+xml MIME body as determined by the procedures of subclause 6.3.6:

i) shall determine if the MCPTT user is eligible to be affiliated with the MCPTT group as determined by subclause 9.2.2.3.8; and

ii) if the MCPTT user is not eligible for affiliation, shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response with the warning text set to "120 user is not affiliated to this group" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below;

4) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33];

5) shall include an Accept-Contact header field containing the g.3gpp.mcptt media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

6) 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.mcptt" along with parameters "require" and "explicit" according to IETF RFC 3841 [6];

7) shall copy the contents of the application/vnd.3gpp.mcptt-info+xml MIME body in the received SIP MESSAGE request into an application/vnd.3gpp.mcptt-info+xml MIME body included in the outgoing SIP MESSAGE request with the following clarifications:

a) shall set the <mcptt-calling-group-id> to the MCPTT group identity contained in the <mcptt-request-uri> element contained in the application/vnd.3gpp.mcptt-info+xml MIME body included in the received SIP MESSAGE request; and

b) shall set the <mcptt-request-uri> element of the application/vnd.3gpp. mcptt-info+xml MIME body in the outgoing SIP MESSAGE request to the MCPTT ID of the targeted MCPTT user contained in the application/resource-lists MIME body contained in the received SIP MESSAGE request;

8) if the received SIP MESSAGE request is a "SIP MESSAGE request for group selection change request for controlling MCPTT function":

a) if the targeted MCPTT user is not affiliated to the identified MCPTT group and was determined to be eligible to be affiliated with the MCPTT group in step 3) a) i) above, shall include in the application/vnd.3gpp.mcptt-info+xml MIME body with the <mcpttinfo> element containing the <mcptt-Params> element with the <anyExt> element an <affiliation-required> element set to a value of "true";

9) shall set the Request-URI to the public service identity of the terminating participating MCPTT function associated with the targeted MCPTT user;

NOTE: How the controlling MCPTT function finds the address of the terminating MCPTT participating function is out of the scope of the current release.

10) shall include a P-Asserted-Service header field with the value "urn:urn-7:3gpp-service.ims.icsi.mcptt";

11) shall copy the public user identity of the calling MCPTT user from the P-Asserted-Identity header field of the incoming SIP MESSAGE request into the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

12) shall send the SIP MESSAGE request according to according to rules and procedures of 3GPP TS 24.229 [4].

Upon receipt of SIP 2xx responses to the outgoing SIP MESSAGE requests, the controlling MCPTT function shall generate a SIP 200 (OK) response and forward the SIP 200 (OK) response to the originating participating MCPTT function.

Upon receipt of a SIP 4xx, 5xx or 6xx response to the SIP MESSAGE request, controlling MCPTT function shall forward the error response to the originating participating MCPTT function.

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

##### 10.1.5.2.1 Remotely initiated group call initiation request procedures

Upon receiving a request from the requesting MCPTT user to send a remotely initiated group call request to the remote MCPTT user for a targeted MCPTT group, the MCPTT client:

1) if:

a) the <allow-request-remote-init-group-call> element of the <ruleset> element is not present in the requesting MCPTT user's MCPTT user profile document (see the MCPTT user profile document in 3GPP TS 24.484 [50]) or is set to a value of "false":

then:

a) should indicate to the requesting MCPTT user that the requesting MCPTT user is not authorised to initiate a remotely initiated group call request to the remote MCPTT user; and

b) shall skip the rest of the steps of the present subclause;

1A) shall determine whether the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

a) should indicate to the MCPTT user that calls are not allowed on the indicated group; and

b) shall skip the remainder of this procedure;

2) if:

a) the requesting MCPTT user has indicated that the affiliation status of the remote MCPTT user to the targeted MCPTT group needs to be verified; and

b) the <allow-request-affiliated-groups> element of the <ruleset> element of the MCPTT user profile document identified by the MCPTT ID of the requesting MCPTT user (see the MCPTT user profile document in 3GPP TS 24.484 [50]) is set to a value of "false";

i) should indicate to the requesting MCPTT user that the requesting MCPTT user is not authorised to request the affiliation status of other MCPTT users; and

ii) shall skip the rest of the steps of the present subclause; and

c) the <allow-request-affiliated-groups> element of the of the <ruleset> element of the MCPTT user profile document identified by the MCPTT ID of the requesting MCPTT user (see the MCPTT user profile document in 3GPP TS 24.484 [50]) is set to a value of "true";

then:

a) shall invoke the procedures of subclause 9.2.1.3 to determine if the remote MCPTT user is affiliated to the targeted MCPTT group; and

b) if the remote MCPTT user is determined to not be affiliated to the targeted MCPTT group:

i) if the <allow-request-to-affiliate-other-users> of the <ruleset> element of the MCPTT user profile document identified by the MCPTT ID of the requesting MCPTT user (see the MCPTT user profile document in 3GPP TS 24.484 [50]) is set to a value of "false":

* A) should indicate to the requesting MCPTT user that the requesting MCPTT user is not authorised to initiate a remotely initiated group call request to the targeted MCPTT user; and

B) shall skip the rest of the steps of the present subclause; and

ii) if the <allow-request-to-affiliate-other-users> of the <ruleset> element of the MCPTT user profile document identified by the MCPTT ID of the requesting MCPTT user (see the MCPTT user profile document in 3GPP TS 24.484 [50]) is set to a value of "true";

A) shall invoke the procedures of subclause 9.2.1.2 to affiliate the remote MCPTT user to the targeted MCPTT group by the requesting MCPTT user;

B) if the procedures of subclause 9.2.1.2 were not successful:

I) should indicate to the requesting MCPTT user that the requesting MCPTT user is not authorised to initiate a remotely initiated group call request to the remote MCPTT user; and

II) shall skip the rest of the steps of the present subclause; and

C) upon receiving a SIP NOTIFY request according to 3GPP TS 24.229 [4], IETF RFC 3856 [51], and IETF RFC 6665 [26]:

I) if the SIP NOTIFY request contains an application/pidf+xml MIME body indicating per-user affiliation information constructed according to subclause 9.3.1, shall determine if the per user affiliation information indicates that the remote MCPTT user is affiliated;

II) if per user affiliation information in the received SIP NOTIFY request indicates that the remote MCPTT user is not affiliated to the targeted MCPTT group, should indicate to the requesting MCPTT user that the remote MCPTT user cannot be affiliated to the targeted MCPTT group; and

III) if it is determined in the previous step that the remote MCPTT user cannot be affiliated to the targeted MCPTT group, shall skip the rest of the steps of the present subclause;

3) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33] with the following clarifications:

a) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Preferred-Service header field according to IETF RFC 6050 [9] in the SIP MESSAGE request;

b) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

c) 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 [4];

d) shall include an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with the <anyExt> element containing:

i) the <mcptt-request-uri> set to the MCPTT group identity of the targeted MCPTT group for the remotely initiated call;

ii) the <request-type> element set to a value of "remotely-initiated-group-call-request";

iii) the <notify-remote-user> element set to a value of "true" if the requesting MCPTT user has indicated that the remote MCPTT user be notified of the remotely initiated group call request; or

iv) the <notify-remote-user> element set to a value of "false" if the requesting MCPTT user has indicated that the remote MCPTT user not be notified of the remotely initiated group call request;

e) shall insert in the SIP MESSAGE request a MIME resource-lists body with the MCPTT ID of the remote MCPTT user, according to rules and procedures of IETF RFC 5366 [20]; and

f) shall set the Request-URI to the public service identity identifying the participating MCPTT function serving the remote MCPTT user; and

4) shall send the SIP MESSAGE request towards the MCPTT server according to rules and procedures of 3GPP TS 24.229 [4].

Upon receipt of a SIP 4xx, 5xx or 6xx response to the SIP MESSAGE request, should indicate to the requesting MCPTT user the failure of the sent remotely initiated group call request and not continue with the rest of the steps.

Upon receiving a "SIP MESSAGE request for remotely initiated group call response for terminating client", the MCPTT client:

1) shall determine the success or failure of the sent remotely initiated group call request from the value of the <remotely-initiated-call -outcome> element contained in the <anyExt> element of the <mcptt-Params> element of the <mcpttinfo> element of the application/vnd.3gpp.mcptt-info+xml MIME body included in the received SIP MESSAGE request; and

2) should indicate to the requesting MCPTT user the success or failure of the sent remotely initiated group call request.

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

#### 10.1.5.4 Controlling MCPTT function procedures

Upon receiving:

- a "SIP MESSAGE request for remotely initiated group call request for controlling MCPTT function"; or

- a "SIP MESSAGE request for remotely initiated group call response for controlling MCPTT function";

the controlling MCPTT 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 MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24] and skip the rest of the steps;

2) shall reject the SIP request with a SIP 403 (Forbidden) response and not process the remaining steps if an Accept-Contact header field does not include the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt";

2A) if the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element that is set to the value "true", shall shall reject the SIP request with a SIP 403 (Forbidden) response with the warning text set to "XXX call is not allowed on the preconfigured group" as specified in subclause 4.4 "Warning header field" and skip the rest of the steps;

3) if:

a) there is a <request-type> element set to a value of "remotely-initiated-group-call-request" contained in the <anyExt> element in the <mcptt-Params> element contained in the <mcpttinfo> root element contained in the application/vnd.3gpp. mcptt-info+xml MIME body in the received SIP MESSAGE request; and

b) if the MCPTT user identified by the MCPTT ID in the application/resource-lists MIME body contained in the SIP MESSAGE request is not affiliated with the MCPTT group identified by the <mcptt-request-uri> in the application/vnd.3gpp. mcptt-info+xml MIME body as determined by the procedures of subclause 6.3.6;

then:

a) shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response with the warning text set to "120 user is not affiliated to this group" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below;

4) shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33];

5) shall include an Accept-Contact header field containing the g.3gpp.mcptt media feature tag along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

6) 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.mcptt" along with parameters "require" and "explicit" according to IETF RFC 3841 [6];

7) shall copy the contents of the application/vnd.3gpp.mcptt-info+xml MIME body in the received SIP MESSAGE request into an application/vnd.3gpp.mcptt-info+xml MIME body included in the outgoing SIP MESSAGE request with the following clarifications:

a) shall set the <mcptt-calling-group-id> to the MCPTT group identity contained in the <mcptt-request-uri> element contained in the application/vnd.3gpp.mcptt-info+xml MIME body included in the received SIP MESSAGE request; and

b) shall set the <mcptt-request-uri> element of the application/vnd.3gpp. mcptt-info+xml MIME body in the outgoing SIP MESSAGE request to the MCPTT ID contained in the application/resource-lists MIME body contained in the received SIP MESSAGE request;

8) shall set the Request-URI to the public service identity of the terminating participating MCPTT function associated with the MCPTT user identified by the MCPTT ID contained in the <mcptt-request-uri> element of the application/vnd.3gpp. mcptt-info+xml MIME body in the outgoing SIP MESSAGE request;

NOTE: How the controlling MCPTT function finds the address of the terminating MCPTT participating function is out of the scope of the current release.

9) shall include a P-Asserted-Service header field with the value "urn:urn-7:3gpp-service.ims.icsi.mcptt";

10) shall copy the public user identity of the calling MCPTT user from the P-Asserted-Identity header field of the incoming SIP MESSAGE request into the P-Asserted-Identity header field of the outgoing SIP MESSAGE request; and

11) shall send the SIP MESSAGE request according to according to rules and procedures of 3GPP TS 24.229 [4].

Upon receipt of SIP 2xx responses to the outgoing SIP MESSAGE requests, the controlling MCPTT function shall generate a SIP 200 (OK) response and forward the SIP 200 (OK) response to the originating participating MCPTT function.

Upon receipt of a SIP 4xx, 5xx or 6xx response to the SIP MESSAGE request, the controlling MCPTT function shall forward the error response to the originating participating MCPTT function.

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

#### 12.1.1.1 Emergency alert origination

Upon receiving a request from the MCPTT user to send an MCPTT emergency alert to the indicated MCPTT group shall determine whether the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element. If a <preconfigured-group-use-only> element exists and is set to the value "true", then the MCPTT client:

1) should indicate to the MCPTT user that alerts are not allowed on the indicated group; and

2) shall skip the remainder of this procedure.

If this is an authorised request for an MCPTT emergency alert as determined by subclause 6.2.8.1.6, the MCPTT client shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33] with the clarifications given below.

NOTE 1: this SIP MESSAGE request is assumed to be sent out-of-dialog.

The MCPTT client:

1) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Preferred-Service header field according to IETF RFC 6050 [9] in the SIP MESSAGE request;

2) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

3) 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 [4];

4) shall include an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with:

a) the <mcptt-request-uri> element set to the group identity;

b) the <alert-ind> element set to a value of "true";

c) the <mcptt-client-id> element set to the MCPTT client ID of the originating MCPTT client; and

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

NOTE 2: The MCPTT client learns the functional aliases that are activated for an MCPTT ID from procedures specified in subclause 9A.2.1.3.

5) shall include in the SIP MESSAGE request the specific location information for MCPTT emergency alert as specified in subclause 6.2.9.1;

6) shall set the MCPTT emergency state if not already set;

7) shall set the MCPTT emergency alert state to "MEA 2: emergency-alert-confirm-pending";

8) shall set the Request-URI to the public service identity identifying the participating MCPTT function serving the group identity; and

9) shall send the SIP MESSAGE request according to rules and procedures of 3GPP TS 24.229 [4].

On receiving a SIP 2xx response to the SIP MESSAGE request, the MCPTT client shall set the MCPTT emergency alert state to "MEA 3: emergency-alert-initiated".

On receiving a SIP 4xx response a SIP 5xx response or a SIP 6xx response to the SIP MESSAGE request, the MCPTT client shall set the MCPTT emergency alert state to "MEA 1: no-alert".

NOTE 3: the MCPTT emergency state is left set in this case as the MCPTT user presumably is in the best position to determine whether or not they are in a life-threatening condition. The assumption is that the MCPTT user can clear the MCPTT emergency state manually if need be.

NOTE 4: Based on implementation the MCPTT client can subsequently automatically originate an MCPTT emergency group call as specified in subclause 10.1.1.2.

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

#### 12.1.3.1 Handling of a SIP MESSAGE request for emergency notification

Upon receipt of a "SIP MESSAGE request for emergency notification for controlling MCPTT function", the controlling MCPTT 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 MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24]. Otherwise, continue with the rest of the steps;

NOTE: If the SIP MESSAGE request contains an alert indication set to a value of "true", the controlling MCPTT function can, according to local policy, choose to accept the request.

2) shall reject the SIP request with a SIP 403 (Forbidden) response and not process the remaining steps if an Accept-Contact header field does not include the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt";

2A) if the group document contains a <listserv> element that contains a <preconfigured-group-use-only> element that is set to the value "true", shall shall reject the SIP request with a SIP 403 (Forbidden) response with the warning text set to " YYY alert is not allowed on the preconfigured group " as specified in subclause 4.4 "Warning header field" and skip the rest of the steps;

3) if the received SIP MESSAGE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <alert-ind> element set to a value of "false", shall perform the procedures specified in subclause 12.1.3.2 and skip the rest of the steps;

4) if the received SIP MESSAGE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <alert-ind> element set to a value of "true":

a) if the received SIP MESSAGE request is an unauthorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1 shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response to the SIP MESSAGE request as specified in 3GPP TS 24.229 [4] with the following clarifications:

i) shall include in the SIP 403 (Forbidden) response an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with the <alert-ind> element set to a value of "false"; and

ii) shall send the SIP 403 (Forbidden) response as specified in 3GPP TS 24.229 [4] and skip the rest of the steps; and

b) if the received SIP MESSAGE request is an authorised request for an MCPTT emergency alert as specified in subclause 6.3.3.1.13.1:

i) if the sending MCPTT user identified by the <mcptt-calling-user-id> element included in the application/vnd.3gpp.mcptt-info+xml MIME body is not affiliated with the MCPTT group identified by the <mcptt-request-uri> element of the MIME body as determined by the procedures of subclause 6.3.6:

I) shall check if the MCPTT user is eligible to be implicitly affiliated with the MCPTT group as determined by subclause 9.2.2.3.6;

II) if the MCPTT user is determined not to be eligible to be implicitly affiliated to the MCPTT group shall reject the SIP MESSAGE request with a SIP 403 (Forbidden) response with the warning text set to "120 user is not affiliated to this group" in a Warning header field as specified in subclause 4.4 and skip the rest of the steps below; or

III) if the procedures of subclause 9.2.2.3.6 determined the MCPTT user to be eligible to be implicitly affiliated to the MCPTT group shall, perform the implicit affiliation as specified in subclause 9.2.2.3.7;

ii) for each of the other affiliated members of the group:

A) generate an outgoing SIP MESSAGE request notification of the MCPTT user's emergency alert indication as specified in subclause 6.3.3.1.11 with the clarifications of subclause 6.3.3.1.12;

B) shall include in the application/vnd.3gpp.mcptt-info+xml MIME body with the <mcpttinfo> element containing the <mcptt-Params> element with the <mcptt-calling-user-id> element set to the value of the <mcptt-calling-user-id> element in the received SIP MESSAGE request; and

C) send the SIP MESSAGE request according to according to rules and procedures of 3GPP TS 24.229 [4];

iii) shall generate a SIP 200 (OK) response to the received SIP MESSAGE request as specified in 3GPP TS 24.229 [4] with the following clarifications:

A) shall cache the information that the MCPTT user has initiated an MCPTT emergency alert;

iv) shall send the SIP 200 (OK) response to the received SIP MESSAGE according to rules and procedures of 3GPP TS 24.229 [4].

v) shall generate a SIP MESSAGE request as described in subclause 6.3.3.1.20 to indicate successful receipt of an emergency alert, and shall include in the application/vnd.3gpp.mcptt-info+xml MIME body:

A) the <alert-ind> element set to a value of "true";

B) the <alert-ind-rcvd> element set to a value of true; and

C) the <mcptt-client-id> element with the MCPTT client ID that was included in the incoming SIP MESSAGE request; and

vi) shall send the SIP MESSAGE request according to according to rules and procedures of 3GPP TS 24.229 [4].

Upon receipt of SIP 2xx responses to the outgoing SIP MESSAGE requests, the controlling MCPTT function shall follow the procedures specified in 3GPP TS 24.229 [4].

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

## 16.1 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 <mcptt-regroup-uri> element of the application/vnd.3gpp.mcptt-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.mcptt-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 MCPTT servers and all MCPTT 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 MCPTT client without creation of a 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 MCPTT function. Creation and removal of a regoup is normally initiated by an MCPTT client. Removal can also be initiated by the controlling MCPTT function.

##### **\* \* \* \* \* END CHANGES \* \* \* \* \***