**3GPP TSG-CT WG1 Meeting #126-eC1-206421**

**Electronic meeting, 15-23 October 2020 was C1-20xxxx**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.379** | **CR** | **0657** | **rev** | **1** | **Current version:** | **17.0.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Handle group in-progress emergency cancel while other user transmitting in emergency state | | | | | | | | | |
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| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MCProtoc17 | | | | |  | ***Date:*** | | | 2020-10-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | As per the latest SA6 #39 meeting clarification on group in-progress emergency cancel and CT1 offline MC group discussion, the cancelation request for in-progress emergency is rejected if the user in emergency state is still in a call and transmitting the media. Cancelation request for in-progress emergency can also be rejected, based on local policy, if other users are still in mergency state even if they are not transmitting. | | | | | | | | |
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| ***Summary of change:*** | | In subclause 10.1.1.4.7, new step has been added to validate whether cancelation request for in-progress emergency is allowed or rejected based on the other users in emergency state are transmitting media or not.  Also based on the local policy the request can be rejected if the other users in emergency state still exists in the call. | | | | | | | | |
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| ***Consequences if not approved:*** | | The priority and network resources will be tear downed and even if other users are in emergency state and talking. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 10.1.1.4.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1: The text in Reason for change is reworded as per the feedback and also in step 7a) and NOTE 2a. | | | | | | | | |

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

##### 10.1.1.4.7 Receipt of a SIP re-INVITE request

In the procedures in this subclause:

1) 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

2) 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 re-INVITE request for an MCPTT session identity identifying an on-demand prearranged MCPTT group session, 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 re-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 re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "true", the controlling MCPTT function can choose to accept the request.

2) if received SIP re-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;

3) if the received SIP re-INVITE request contains an unauthorised request for an MCPTT emergency call as determined by subclause 6.3.3.1.13.2:

a) shall reject the SIP re-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;

4) if the received SIP re-INVITE request contains an imminent peril indication set to "true" for an MCPTT imminent peril group call and this is an unauthorised request for an MCPTT imminent peril group call as determined by subclause 6.3.3.1.13.6, shall reject the SIP re-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;

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

a) if the Resource-Priority header field is set to the value indicated for emergency calls and the SIP re-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 re-INVITE request with a SIP 403 (Forbidden) response and skip the rest of the steps; and

b) if the Resource-Priority header field is set to the value indicated for imminent peril calls and the SIP re-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;

6) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "true" and is an authorised request to initiate an MCPTT emergency group call as determined by subclause 6.3.3.1.13.2, the controlling MCPTT function:

i) shall cache the MCPTT ID of the MCPTT user that has initiated an MCPTT emergency call i.e the group in-progress emergency state;

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 MCPTT ID of the MCPTT user that has initiated an MCPTT emergency alert;

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

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

i) shall generate a SIP MESSAGE request notification of the MCPTT user's emergency indication as specified in subclause 6.3.3.1.11;

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

iii) 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 re-INVITE request; and

iv) if indicated above in step 6) ii), shall set the <alert-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

C) 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"; and

iv) 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;

NOTE 2: The interactions of TNG2 with the TNG3 (group call timer) are explained in subclause 6.3.3.5.2.

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

D) shall send the SIP re-INVITEs towards the other participants of the MCPTT group call;

E) for each of other affiliated members of the group that are not participating in the call:

i) shall generate a SIP MESSAGE request notification of the MCPTT user's emergency indication as specified in subclause 6.3.3.1.11;

ii) 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 re-INVITE request;

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

iv) if indicated above in step 6) ii), shall set the <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "true"; and

v) send the SIP MESSAGE request according to 3GPP TS 24.229 [4]; and

F) 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];

7) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "false" and is an unauthorised request for an MCPTT emergency group call cancellation as determined by subclause 6.3.3.1.13.4:

a) shall reject the SIP re-INVITE request with a SIP 403 (Forbidden) response;

b) shall include in the SIP 403 (Forbidden) response an application/vnd.3gpp.mcptt-info+xml MIME body as specified in annex F.1 with an <emergency-ind> element set to a value of "true";

c) if an <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body is included in the SIP re-INVITE request set to "false", and there is an outstanding MCPTT emergency alert for the MCPTT user, shall include in the application/vnd.3gpp.mcptt-info+xml MIME body an <alert-ind> element set to a value of "true"; and

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

7a) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "false" and is an authorised request for an MCPTT emergency group call cancellation as determined by subclause 6.3.3.1.13.4 and if another user is in emergency state and is transmitting media as determined by interacting with the media plane as specified in 3GPP TS 24.380:

a) shall reject the SIP re-INVITE request with a SIP 403 (Forbidden) response;

b) shall include in the SIP 403 (Forbidden) response an application/vnd.3gpp.mcptt-info+xml MIME body as specified in annex F.1 with an <emergency-ind> element set to a value of "true";

c) if an <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body is included in the SIP re-INVITE request set to "false", and there is an outstanding MCPTT emergency alert for the MCPTT user, shall include in the application/vnd.3gpp.mcptt-info+xml MIME body an <alert-ind> element set to a value of "true"; and

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

NOTE 2a: According to local policy, if other participants exist in the MCPTT session who are in emergency state, then the MCPTT emergency call cancellation request can be rejected.

8) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "false" and is determined to be an authorised request for an MCPTT emergency call cancellation as specified in subclause 6.3.3.1.16 and the in-progress emergency state of the group to is set to a value of "true" and if cache of the MCPTT ID of the MCPTT users having an outstanding MCPTT emergency group call for only one MCPTT user, the controlling MCPTT function:

a) shall set the in-progress emergency group state of the group to a value of "false";

b) shall clear the cache of the MCPTT ID of the MCPTT user as having an outstanding MCPTT emergency group call;

c) if an <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body is included and set to "false" and is determined to be an authorised request for an MCPTT emergency alert cancellation as specified in subclause 6.3.3.1.13.3 and there is an outstanding MCPTT emergency alert for the MCPTT user shall:

i) if the received SIP re-INVITE request contains an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, clear the cache of the MCPTT ID of the MCPTT user identified by the <originated-by> element as having an outstanding MCPTT emergency alert; or

ii) if the received SIP re-INVITE request does not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, clear the cache of the MCPTT ID of the sender of the SIP re-INVITE request as having an outstanding MCPTT emergency alert;

d) shall generate SIP re-INVITE requests to the participants in the group call as specified in subclause 6.3.3.1.6. The MCPTT controlling function:

i) for each of the other participants in the group call shall send the SIP re-INVITE request towards the MCPTT client as specified in 3GPP TS 24.229 [4]; and

ii) 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];

NOTE 3: Subclause 6.3.3.1.6 will inform the group call participants of the cancellation of the MCPTT group's in-progress emergency state and the cancellation of the MCPTT emergency alert if applicable.

e) shall stop timer TNG2 (in-progress emergency group call timer); and

NOTE 4: The interactions of TNG2 with the TNG3 (group call timer) are explained in subclause 6.3.3.5.2;

f) for each of the affiliated members of the group that are not participating in the call:

i) generate a SIP MESSAGE request notification of the cancellation of the MCPTT user's emergency call as specified in subclause 6.3.3.1.11;

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

iii) if indicated above in step 8) c), set the <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "false"; and

iv) send the SIP MESSAGE request according to 3GPP TS 24.229 [4];

Editor's Note: [CR 0xxx, WI MCProtoc17] it is FFS to determine the authorize user i.e the user who is cancelling his own emergency conditions declared earlier to the one who is cancelling emergency conditions of others but has not declared his own emergency condition.

9) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "false" and is determined to be an authorised request for an MCPTT emergency call cancellation as specified in subclause 6.3.3.1.16 and the in-progress emergency state of the group to is set to a value of "true" and if the cache of the MCPTT ID of the MCPTT users having an outstanding MCPTT emergency group call for more than one MCPTT user:

a) shall clear the cache of the MCPTT ID of the MCPTT user as having an outstanding MCPTT emergency group call;

c) if an <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body is included and set to "false" and is determined to be an authorised request for an MCPTT emergency alert cancellation as specified in subclause 6.3.3.1.13.3 and there is an outstanding MCPTT emergency alert for the MCPTT user shall:

i) if the received SIP re-INVITE request contains an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, clear the cache of the MCPTT ID of the MCPTT user identified by the <originated-by> element as having an outstanding MCPTT emergency alert; or

ii) if the received SIP re-INVITE request does not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, clear the cache of the MCPTT ID of the sender of the SIP re-INVITE request as having an outstanding MCPTT emergency alert;

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

i) generate a SIP MESSAGE request notification of the cancellation of the MCPTT user's emergency alert as specified in subclause 6.3.3.1.11;

ii) 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 re-INVITE request;

iii) if the received SIP re-INVITE request contains an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, copy the contents of the received <originated-by> element to an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body in the outgoing SIP MESSAGE request;

iv) if indicated above in step 9) c), set the <alert-ind> element of the application/vnd.3gpp.mcptt-info+xml MIME body to a value of "false"; and

v) send the SIP MESSAGE request according to 3GPP TS 24.229 [4]; and

Editor's Note: [CR 0xxx, WI MCProtoc17] it is FFS to determine the authorize user i.e the user who is cancelling his own emergency conditions declared earlier to the one who is cancelling emergency conditions of others but has not declared his own emergency condition.

10) if the received SIP re-INVITE request contains an imminent peril indication and the in-progress emergency group state of the group is set to a value of "false", shall perform the procedures specified in subclause 10.1.1.4.8 and skip the rest of the steps.

Upon receiving a SIP 200 (OK) response to a SIP re-INVITE or the another MCPTT user is indicating a new emergency indication set to value "true" or "false" while the in-progress emergency state of the group is set to a value of "true" or request the controlling MCPTT function shall interact with the media plane as specified in 3GPP TS 24.380 [5];

1) shall generate a SIP 200 (OK) response according to rules and procedures of 3GPP TS 24.229 [4];

2) 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;

3) shall include the "norefersub" option tag in a Supported header field according to IETF RFC 4488 [22];

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

5) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <alert-ind> element set to a value of "true" and if this is an unauthorised request for an MCPTT emergency alert as determined by 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 re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <alert-ind> element set to a value of "false" and if this is an unauthorised request for an MCPTT emergency alert cancellation as determined by subclause 6.3.3.1.13.3, 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) 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", this is an authorised request for an MCPTT imminent peril group call and 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.

8) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "false" and is determined to be an authorised request for an MCPTT emergency call cancellation as specified in subclause 6.3.3.1.16 and the in-progress emergency state of the group to is set to a value of "true" in the controlling MCPTT function and if the cache of the MCPTT ID of the MCPTT users having an outstanding MCPTT emergency group call for more than one MCPTT user, 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;

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

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

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 with following clarifications:

1) if the received SIP re-INVITE request contains an application/vnd.3gpp.mcptt-info+xml MIME body with the <emergency-ind> element set to a value of "false" and is determined to be an authorised request for an MCPTT emergency call cancellation as specified in subclause 6.3.3.1.16 and the in-progress emergency state of the group to is set to a value of "true" in the controlling MCPTT function and if the cache of the MCPTT ID of the MCPTT users having an outstanding MCPTT emergency group call for more than one MCPTT user, shall include an <emergency-ind> element set to a value of "true" and <outstanding-emergency-ind> element set to a value of "true" in the application/vnd.3gpp.mcptt-info+xml MIME body in the outgoing SIP INFO request.

Upon receipt of a SIP 2xx response for an outgoing SIP MESSAGE request, shall handle according to 3GPP TS 24.229 [4].

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