**3GPP TSG-CT WG1 Meeting #124-eC1-20wxyz**

**Electronic meeting, 2-10 June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.379** | **CR** | **CR#** | **rev** | **-** | **Current version:** | **16.4.0** |  |
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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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | MCPTT server stores preconfigured regroup information |
|  |  |
| ***Source to WG:*** | FirstNet |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | MCProtoc16  |  | ***Date:*** | 5 June 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 canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-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:*** | The MCPTT server needs to store information about the groups and users to be included in a preconfigured regroup. |
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| ***Summary of change:*** | Step 4) of subclause 16.2.2.4 is modified to have the participating function store the identity of the regroup and the list of users who are members of that regroup.Step 5) of subclause 16.2.3.1 is modified to have the controlling function store the identity of the regroup and the list of groups that are constituent groups of that regroup.Step 3) of subclause 16.2.4.1 is modified to have the non-controlling function store the identity of the regroup and the list of groups that are constituent groups of that regroup.Step 4) of subclause 16.3.2.4 is modified to have the participating function store the identity of the regroup and the list of users that are members of that regroup.Step 5) of subclause 16.3.3.1 is modified to have the controlling function store the identity of the uwer regroup and the list of users that are members of that regroup. |
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| ***Consequences if not approved:*** | The information for the preconfigured regroup will not be available for later operations by the CF. |
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| ***Clauses affected:*** | 16.2.2.4, 16.2.3.1, 16.2.4.1, 16.3.2.4, 16.3.3.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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

#### 16.2.2.4 Notification of creation of a regroup using preconfigured group

When receiving a "SIP MESSAGE request to the terminating participating MCPTT function to create a group regroup using preconfigured group", the terminating participating 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 terminating participating MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24]. The terminating participating MCPTT function shall skip the rest of the steps;

2) shall send a SIP 200 (OK) response as specified in 3GPP TS 24.229 [4];

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

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

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [6] that were received (if any) in the incoming SIP MESSAGE request;

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

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

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

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

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

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

4) shall store:

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

b) the list of the users that are members of the group regroup;

 until the regroup is removed.

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

#### 16.2.3.1 Request to create a group regroup using preconfigured group

When receiving a "SIP MESSAGE request to the controlling MCPTT function to request creation of a group regroup using preconfigured 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 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]. The controlling MCPTT function shall skip the rest of the steps;

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

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

b) shall send the SIP 480 (Temporarily Unavailable) response as specified in 3GPP TS 24.229 [4] and skip the rest of the steps;

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

a) shall determine the non-controlling MCPTT function serving that group;

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

c) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [6] that were received (if any) in the incoming SIP MESSAGE request;

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

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

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

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

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

4) shall wait to receive SIP responses from all of the non-controlling MCPTT functions that were sent a SIP MESSAGE request in step 4);

5) if all of the SIP responses received in step 5) are SIP 200 (OK) responses:

a) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33];

b) shall store the list of MCPTT group IDs used to create the group regroup based on a preconfigured group; and

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

6) if at least one of the SIP responses received in step 4) is not a SIP 2xx response:

a) shall send a SIP 480 (Temporarily Unavailable) response in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33];

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

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

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

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

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

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

iv) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [4].

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

#### 16.2.4.1 Notification of creation of a group regroup using preconfigured group

When receiving a "SIP MESSAGE request to a non-controlling MCPTT function to request creation of a group regroup using preconfigured group" the non-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 non-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]. The non-controlling MCPTT function shall skip the rest of the steps;

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

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

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

ii) shall not process the remaining steps;

3) shall store:

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

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

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

4) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33]:

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

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

7) for each terminating participating MCPTT function identified in step 3):

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

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [6] that were received (if any) in the incoming SIP MESSAGE request;

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

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

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

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

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

h) shall send the SIP MESSAGE request as specified in 3GPP TS 24.229 [4].

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

#### 16.3.2.4 Notification of creation of a user regroup using preconfigured group

When receiving a "SIP MESSAGE request to the terminating participating MCPTT function to create a user regroup using preconfigured group", the terminating participating 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 MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24]. The terminating participating MCPTT function shall skip the rest of the steps;

2) shall send a SIP 200 (OK) response in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33];

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

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

b) include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [6] that were received (if any) in the incoming SIP MESSAGE request;

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

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

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

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

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

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

4) shall store:

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

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

until the regroup is removed.

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

#### 16.3.3.1 Request to create a user regroup using preconfigured group

When receiving a "SIP MESSAGE request to the controlling MCPTT function to request creation of a user regroup using preconfigured 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 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]. The controlling MCPTT function shall skip the rest of the steps;

2) if the controlling MCPTT function is unable to handle the user regroup it shall send a SIP 480 (Temporarily Unavailable) response to the incoming SIP MESSAGE request;

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

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

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

b) shall include in the SIP MESSAGE request all Accept-Contact header fields and all Reject-Contact header fields, with their feature tags and their corresponding values along with parameters according to rules and procedures of IETF RFC 3841 [6] that were received (if any) in the incoming SIP MESSAGE request;

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

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

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

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

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

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

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

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

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

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

6) if no SIP 200 (OK) response is received for a SIP MESSAGE sent in step 4), the controlling MCPTT function shall send a SIP 480 (Temporarily Unavailable) response to the incoming SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33].

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