**3GPP TSG-SA WG6 Meeting #63 S6-244449**

**Hyderabad, India, 14th – 18th October 2024 (revision of S6-244278)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **0236** | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** | Update the ad-hoc group call modify procedures | | | | | | | | | |
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| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | SA6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | FRMCS\_Ph5 | | | | |  | ***Date:*** | | | 2024-09-26 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | |  |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | In SA6#59, a CR0207 was agreed to allow the authorized MC service user to add/remove participant to an ad hoc group call which is initially setup with the criteria provided by a initiating user, and those added/removed participant will not further being removed/added by the call criteria.  However, in 7.19.3.1.5 and 7.19.3.1.6, there is no such description which may cause the participant added/removed by the authorized user is removed/added by the MC service server based on the call critera. | | | | | | | | |
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| ***Summary of change:*** | | 1. Add new text in 7.19.3.1.4 to capture the MC service server should mark the added/removed participant by the authorized user. 2. Add new text in 7.19.3.1.5 and 7.19.3.1.6 to capture that the participant added/removed by the authorized user SHALL NOT removed/added by the MC service server based on the call critera. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The participant added/removed by the authorized user to the ad hoc group call is removed/added by the MC service server based on the call critera. | | | | | | | | |
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| ***Clauses affected:*** | | 7.19.3.1.4, 7.19.3.1.5, 7.19.3.1.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1st changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

##### 7.19.3.1.4 Modification of ad hoc group call participants by an authorized user

Figure 7.19.3.1.4-1 below illustrates the modification of ad hoc group call participants procedure by an authorized user.

Pre-conditions:

1. An ad hoc group call is already in progress and the participants list is provided by the originating MCVideo user while initiating the MCVideo ad hoc group call.

2. The participants of the MCVideo ad hoc group call belong to the single MCVideo system.

3. The MCVideo users on MCVideo client 1, MCVideo client 3 to MCVideo client n are on an ongoing ad hoc group call.

4. The MCVideo user at MCVideo client 1 determines to remove the user of MCVideo client 3 from the ad hoc group call and add user of MCVideo client 2 into the on-going ad hoc group call.



Figure 7.19.3.1.4-1: Modification of ad hoc group call participants by an authorized user

1. The MCVideo user at the MCVideo client 1 is authorized and requests to modify ad hoc group call participants. The MCVideo client 1 sends the modify ad hoc group call participants request to the MCVideo server in order to remove MCVideo client 3 from the ongoing ad hoc group call and add MCVideo client 2 into it.

2. The MCVideo server verifies whether the MCVideo client 1 is authorized to add or remove (modify) the participants of the on-going ad hoc group call regardless of the original group call setup parameters. When the group participants were initially determined by the MCVideo server with criteria and MCVideo users are to be removed, the MCVideo server removes MCVideo clients and marks them so that the MCVideo server will not add them back to the ad hoc group call based on the criteria. Participants to be added shall be marked and kept in the ad hoc group call and shall not be removed by the MCVideo server even if they do not meet the call criteria.

NOTE 1: In the above case participants being removed can be added back and the participants being added can be removed by the authorized user via the modify ad hoc group call participants request.

3. The MCVideo server sends modify ad hoc group call participants response to the MCVideo client 1.

4. The MCVideo server sends the ad hoc group call leave request to the MCVideo client 3 in order to remove it from the on-going ad hoc group call.

5. The MCVideo client 3 notifies the user of the ad hoc group call leave request.

6. The MCVideo client 3 sends the ad hoc group call leave response to the MCVideo server.

7. The MCVideo server sends the ad hoc group call request towards MCVideo client 2.

NOTE 2: Steps 7 to 9 can occur at any time following step 3.

8. The receiving MCVideo client 2 notifies the user about the incoming ad hoc group call.

9. The MCVideo client 2 accepts the ad hoc group call request and send ad hoc group call responses to the MCVideo server. The response may also contain a functional alias of the responding MCVideo user, which is verified (valid and activated for the user) by the MCVideo server. The MCVideo server considers the MCVideo user as implicitly affiliated to the ad hoc group.

10. The MCVideo server may notify the initiating MCVideo user of all the users who are added to the on-going ad hoc group call. This notification may be sent to the initiating MCVideo user by the MCVideo server more than once during the call when MCVideo users join or leave the ad hoc group call.

11. The MCVideo server may notify the participants about the change in the participants of on-going ad hoc group call.

##### 7.19.3.1.5 Modification of ad hoc group call participants by the MCVideo server

Figure 7.19.3.1.5-1 below illustrates the modification of ad hoc group call participants procedure by the MCVideo server.

Pre-conditions:

1. The MCVideo client 1 is the initiator of the ad hoc group call.

2. MCVideo server determined the participants for the ad hoc group call based on the criteria specified by the MCVideo client 1 while initiating the ad hoc group call.

3. MCVideo server continuously evaluates the criteria to monitor the list of users who meets or not meets the criteria for participating in the on-going ad hoc group call.

4. The MCVideo server detects that the MCVideo client 5 satisfies the criteria and MCVideo client 4 stops to meet the criteria specified by the MCVideo client 1.



Figure 7.19.3.1.5-1: Modification of ad hoc group call participants by the MCVideo server

1. The ad hoc group call is established and on-going with the participants MCVideo client 1, MCVideo client 2, MCVideo client 3 and MCVideo client 4. The participants list is determined by the MCVideo server based on the criteria specified by the MCVideo client 1 while initiating the call

2. The MCVideo server detects that the MCVideo client 5 satisfies the criteria specified by the MCVideo client 1 and checks whether it has been previously removed by an authroized user as descripbed in clause 7.19.3.1.4. If MCVideo client 5 has already been removed by an authroized user, the MCVideo server does not add the MCVideo client 5 back to the ad hoc group call and it skips step 3 to step 6. If MCVideo client 5 has not been already removed by an authroized user, the procedure continues with step 3.

3. The MCVideo server sends the ad hoc group call request to the MCVideo client 5.

4. The MCVideo client 5 notifies the user about the incoming ad hoc group call.

5. The MCVideo client 5 accepts the ad hoc group call request and sends the ad hoc group call response to the MCVideo server.

6. The on-going ad hoc group call is updated by adding MCVideo client 5 which satisfies the criteria specified by the MCVideo client 1.

7. The MCVideo server detects that the MCVideo client 4 is no more satisfying the criteria to be the participant of the ad hoc group call and checks whether it has been previously added by an authorized user as described clause 7.19.3.1.4. If MCVideo client 4 has been previously added by an authroized user, the MCVideo server does not remove it from the ad hoc group call and skips step 8 to step 11. If MCVideo client 4 has not been already added by an authroized user, the procedure continues with step 8.

8. The MCVideo server sends the ad hoc group call leave request to the MCVideo client 4 and removes it from the on-going ad hoc group call.

9. The MCVideo client 4 notifies the user of the ad hoc group call leave request.

10. The MCVideo client 4 sends the ad hoc group call leave response to the MCVideo server.

11. The on-going ad hoc group call is updated by removing MCVideo client 4, which no more satisfies the criteria specified by the MCVideo client 1.

7.19.3.1.6 Modification of ad hoc group call criteria by an authorized user

Figure 7.19.3.1.6-1 below illustrates the modification of ad hoc group call criteria procedure by an authorized user.

Pre-conditions:

1. The MCVideo user at the MCVideo client 1 is authorized to modify the criteria.

2. Both the MCVideo server and the MCVideo client 1 are aware of the criteria related to the ongoing ad hoc group call.



Figure 7.19.3.1.6-1: Modification of ad hoc group call criteria by the authorized user

1. The MCVideo user at the MCVideo client 1 is authorized and requests to modify the criteria for determining the list of participants. The MCVideo client 1 sends the modify ad hoc group call criteria request to the MCVideo server which contains an updated criteria to determine the list of participants.

2. The MCVideo server verifies whether the MCVideo client 1 is authorized to modify the criteria which determines the list of participants during on-going ad hoc group video call. The MCVideo server determines the list of ad hoc group call participants based on the criteria provided and the added/removed participant by the authorized user as marked in clause 7.19.3.1.4.

If MCVideo client 3 satisfies the new criteria to be removed and

* has already been added by an authorized user, the MCVideo server does not remove it from the call and skips the step 4 to step 6.
* has not been already added by an authorized user, the procedure continues with step 4.

If MCVideo client 2 satisfies the new criteria to be added and

* has already been removed by an authorized user, the MCVideo server does not add it back to the call and skips the step 7 to step 9.
* has not been already removed by an authorized user, the procedure continues with step 4.

3. The MCVideo server sends modify ad hoc group call criteria response to the MCVideo client 1.

4. The MCVideo server sends the ad hoc group call leave request to the MCVideo client 3 in order to remove it from the on-going ad hoc group call.

5. The MCVideo client 3 notifies the user of the ad hoc group call leave request.

6. The MCVideo client 3 sends the ad hoc group call leave response to the MCVideo server.

7. The MCVideo server sends the ad hoc group call request towards MCVideo client 2.

NOTE 1: Steps 7 to 9 can occur at any time following step 3.

8. The receiving MCVideo client 2 notifies the user about the incoming ad hoc group call.

9. The MCVideo client 2 accepts the ad hoc group call request and send ad hoc group call responses to the MCVideo server. The response may also contain a functional alias of the responding MCVideo user, which is verified (valid and activated for the user) by the MCVideo server. The MCVideo server considers the MCVideo user as implicitly affiliated to the ad hoc group.

10. The MCVideo server may notify the initiating MCVideo user of all the users who are added to the on-going ad hoc group call. This notification may be sent to the initiating MCVideo user by the MCVideo server more than once during the call when MCVideo users join or leave the ad hoc group call.

11. The MCVideo server may notify the participants about the change in the participants list of on-going ad hoc group call.

The MCVideo server continuously checks whether other MCVideo clients meet or if participating MCVideo clients no longer meet the criteria for the ad hoc group emergency call.

NOTE 2: If the ad hoc group call is associated with an ad hoc group emergency alert and the change of criteria caused the modification of ad hoc group call participant list then the ongoing ad hoc group emergency alert is modified accordingly.