**3GPP TSG-SA WG6 Meeting #68S6-253464**

**Gothenburg, Sweden 25th – 29th August 2025 (revision of S6-253055)**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **23.379** | **CR** | **0475** | **rev** | 1 | **Current version:** | **19.7.0** |  |
|  |
| *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 | **x** | Radio Access Network |  | Core Network | **x** |

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|  |
| ***Title:***  | Location information for private and group call requests  |
|  |  |
| ***Source to WG:*** | BDBOS |
| ***Source to TSG:*** | SA6 |
|  |  |
| ***Work item code:*** | enhMC |  | ***Date:*** | 2025-07-15 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-19 |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | In several *Information Flow* tables of different call types (*Group Call Request, Group Broadcast Group Call Request, Ad-hoc Group Call Request, Private Call Request*), the optional *Location Information* is missing for certain communication directions (*Server→Client, Server→Server*).This gap leads to inconsistencies between call types and communication directions and may result in location data not being delivered to all relevant network nodes or participants in practice.Adding *Location Information* ensures consistent availability across all call types and communication directions, thereby improving operational capability in situation-critical scenarios. |
|  |  |
| ***Summary of change:*** | In all affected *Information Flow* tables of the listed call types, the respective communication directions will be extended to include an optional *Location Information* attribute:Private Call Request: Server→Client Group Call Request: Server→ClientGroup Broadcast Group Call Request: Server→Client Ad-hoc Group Call Request – Emergency: Server→ServerIn applicable procedures the verification to forward location information regarding privacy settings is added. |
|  |  |
| ***Consequences if not approved:*** | If not added, there is an inconsistency between call types and communication directions. |
|  |  |
| ***Clauses affected:*** | 10.6.2.2.9, 10.6.2.2.27, 10.6.2.5.2.1, 10.7.2.1.2a, 10.7.2.2.1, 10.7.2.2.2.2, 10.19.2.3  |
|  |  |
|  | **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:*** |  |

\* \* \* \* Next change \* \* \* \*

##### 10.6.2.2.9 Group call request (MCPTT server – MCPTT client)

Table 10.6.2.2.9-1 describes the information flow group call request from the MCPTT server to the MCPTT client.

Table 10.6.2.2.9-1: Group call request information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the calling party |
| MCPTT ID | M | The identity of the MCPTT user towards which the request is sent |
| Functional alias | O | The functional alias of the calling party |
| MCPTT group ID | M | The MCPTT group ID of the group on which the call is initiated |
| SDP offer | M | Media parameters of MCPTT server |
| Broadcast indicator | O | Indicates that the group call request is for a broadcast group call |
| Location information | O | Location of the calling party  |
| Remotely initiated call request indicator | O | Indicates that the MCPTT group call request is a result of receiving of a remotely initiated call request and may be included only for remotely initiated call |

\* \* \* \* Next change \* \* \* \*

##### 10.6.2.2.27 Group-broadcast group call request (MCPTT server – MCPTT client)

Table 10.6.2.2.27-1 describes the information flow group-broadcast group call request from the MCPTT server to the MCPTT client.

Table 10.6.2.2.27-1: Group-broadcast group call request information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the calling party |
| MCPTT ID | M | The identity of the MCPTT user towards which the request is sent |
| Functional alias | O | The functional alias of the calling party |
| MCPTT group ID | M | The MCPTT group ID of the group on which the call is requested |
| SDP offer | M | Media parameters of MCPTT clients |
| Broadcast indicator | M | Indicates that the group call request is for a broadcast group call |
| Location information  | O | Location of the calling party |

\* \* \* \* Next change \* \* \* \*

###### 10.6.2.5.2.1 Group-broadcast group call procedure

The group-broadcast group is defined as a set of groups, not a set of MCPTT users. The group-broadcast group is also defined with a hierarchy. It is expected that the MCPTT user that originates the group-broadcast group call is the only one transmitting media during the group-broadcast group call and that the group-broadcast group call is terminated when the transmission is complete. However, if the override feature is enabled, then the call originator may be overridden.

Figure 10.6.2.5.2.1-1 illustrates the procedure for group-broadcast group call establishment.

Pre-conditions:

1. The group (e.g. A) to which MCPTT client 1 and MCPTT client 2 are members is a subordinate group of the group-broadcast group (i.e., the group-broadcast group was defined with group A as a subordinate group).

2. The group (e.g. A) currently has an on-going MCPTT group call that is not an MCPTT emergency group call.

3. The call initiator of the group-broadcast group is a member of another group (e.g., X, not group A) which is also a subordinate group of the group-broadcast group (i.e., the group-broadcast group was defined with group X as a subordinate group).

4. The group-broadcast group and its subordinated groups are defined in the same group management server and served by the same MCPTT server.

5. Optionally, MCPTT client 3 may have an activated functional alias for the group communication.

6. The MCPTT server may have subscribed to the MCPTT functional alias controlling server within the MC system for functional alias activation/de-activation updates.



Figure 10.6.2.5.2.1-1: Group-broadcast group call

1. MCPTT user at MCPTT client 3 initiates the group-broadcast group call setup procedure.

2. The MCPTT client 3 sends a group-broadcast group call request to the MCPTT server. The MCPTT user at MCPTT client 1 may include a functional alias used for the broadcast group call.

3. The MCPTT server checks whether the provided functional alias can be used and has been activated for the MCPTT user. The MCPTT server needs to resolve the group-broadcast group ID into its subordinate groups in order to contact the affiliated MCPTT users of those subordinate groups.

4. The MCPTT server then needs to consider any on-going group calls on those subordinate groups because this may affect the behaviour for what happens next. In this case a group call exists on a subordinate group. Thus, the MCPTT users involved in the group call on this subordinate group.

5. Optionally the on-going group call on a subordinate group may be terminated in which case the MCPTT client 1 and MCPTT client 2 need to be sent a Group call release request.

6. The MCPTT client 1 and MCPTT client 2 then notify their users of the group call release request.

7. The MCPTT client 1 and MCPTT client 2 respond to the group call release request by sending a group call release response.

8. A group-broadcast group call request is sent to both the MCPTT client 1 and the MCPTT client 2. The request may contain the functional alias of the calling party.
If location information was included in the group-broadcast group call request, the MCPTT server checks the privacy policy of the MCPTT user 3 to decide if the location information of MCPTT client 3 can be provided to other users on the call (refer to Annex A.3 "Authorisation to provide location information to other MCPTT users on a call when talking").

9. MCPTT client 1 and MCPTT client 2 notify their users of the incoming group-broadcast group call. The functional alias of the calling party, if available, is presented to the users.

10. MCPTT client 1 and MCPTT client 2 respond to the group-broadcast group call request by sending a group-broadcast group call response.

11. The MCPTT server responds to MCPTT client 3 (the call initiator) that the group-broadcast group call has been established by sending a group-broadcast group call response.

12. The MCPTT client 3 notifies its user that the user can begin transmitting using the group-broadcast group call resources.

Resources are now available for the transmission from MCPTT client 3 to MCPTT client 1 and MCPTT client 2. Once the user of MCPTT cleint 3 completes transmitting, the group-broadcast group call is releases as are the resources.

\* \* \* \* Next change \* \* \* \*

##### 10.7.2.1.2a MCPTT private call request (MCPTT server to MCPTT client)

Table 10.7.2.1.2a describes the information flow MCPTT private call request from the MCPTT server to the MCPTT client.

Table 10.7.2.1.2a: MCPTT private call request (MCPTT server to MCPTT client) information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID  | M | The MCPTT ID of the calling party |
| Functional alias | O | The functional alias of the calling party |
| MCPTT ID  | M | The MCPTT ID of the called party |
| Functional alias | O | The functional alias of the called party |
| Use floor control indication | M | This element indicates whether floor control will be used for the private call. |
| SDP offer | M | Media parameters of MCPTT client.  |
| Location information  | O | Location of the calling party |
| Requested commencement mode | O | An indication of the commencement mode to be used. |
| Implicit floor request | O | An indication that the user is also requesting the floor.  |
| Remotely initiated call request indicator | O | Indicates that the MCPTT private call request is a result of receiving of a remotely initiated call request and may be included only for remotely initiated call |

\* \* \* \* Next change \* \* \* \*

##### 10.7.2.2.1 Private call setup in automatic commencement mode

The procedure focuses on the case where an MCPTT user is initiating an MCPTT private call for communicating with another MCPTT user, with or without floor control enabled, in an automatic commencement mode.

Procedures in figure 10.7.2.2.1-1 are the basic signalling control plane procedures for the MCPTT client initiating establishment of MCPTT private call with the chosen MCPTT user.

Pre-conditions:

1. The calling MCPTT user has selected automatic commencement mode for the call; or

2. The called MCPTT client is set to automatic commencement mode.

3. Optionally, MCPTT client 1 may use an activated functional alias for the call.

4. The MCPTT server has subscribed to the MCPTT functional alias controlling server within the MC system for functional alias activation/de-activation updates.



Figure 10.7.2.2.1-1: Private call setup in automatic commencement mode– MCPTT users in the same MCPTT system

1. MCPTT users on MCPTT client 1 and MCPTT client 2 are already registered for receiving MCPTT service, as per procedure in subclause 10.2.

2. User at MCPTT client 1 would like to initiate an MCPTT private call for the chosen MCPTT user. The MCPTT user at MCPTT client 1 may include a functional alias used within the MCPTT private call. For a private call with floor control, floor control is to be established.

3. MCPTT client 1 sends an MCPTT private call request towards the MCPTT server (via SIP core) using a service identifier as defined in 3GPP TS 23.228 [5] for MCPTT, for establishing a private call with the chosen MCPTT user. The MCPTT private call request contains the MCPTT ID or the functional alias of the invited user, an SDP offer containing one or more media types. For a private call with floor control, the MCPTT private call request also contains an element that indicates that MCPTT client 1 is requesting the floor. The MCPTT client 1 may include a Requested commencement mode that indicates that the call is to be established in automatic commencement mode if automatic commencement mode is requested by the initiating user.

NOTE 1: As part of this step, MCPTT client 1 and MCPTT client 2 set up a security association (when no functional alias is present), if end-to-end encryption is used for this call.

4. If the MCPTT private call request contains a functional alias instead of an MCPTT ID as called party, the MCPTT server shall resolve the functional alias to the corresponding MCPTT ID(s) for which the functional alias is active. The MCPTT server shall also check whether MCPTT client 1 is allowed to use the functional alias of MCPTT client 2 to setup a private call and whether MCPTT client 2 is allowed to receive a private call from MCPTT client 1 using the functional alias. If authorized, proceed with step 5. Otherwise, the MCPTT server checks whether the MCPTT user at MCPTT client 1 is authorized to initiate the private call, and that MCPTT user at MCPTT client 2 is authorized to receive the private call. If the MCPTT private call request requested automatic commencement mode then the MCPTT server also checks whether the MCPTT user at MCPTT client 1 is authorized to initiate a private call in automatic commencement mode and proceed with step 6.

NOTE 2: Depending on implementation the MCPTT server can apply additional call restrictions and decide whether the call is allowed to proceed with the resolved MCPTT ID(s) (e.g. whether the MCPTT ID is within the allowed area of the functional alias). If the MCPTT server detects that the functional alias used as the target of the private call request is simultaneously active for multiple MCPTT users, then the MCPTT server can proceed by selecting an appropriate MCPTT ID based on some selection criteria (e.g. current location of the initiating user to determine the dispatcher who is responsible for the related geographic area). The selection of an appropriate MCPTT ID is left to implementation. This selection criteria can include rejection of the call, if no suitable MCPTT ID is selected.

5a. The MCPTT server responds with a functional alias resolution response message that contains the resolved MCPTT ID back to MCPTT client 1.

5b. If the MCPTT server replies with a MCPTT functional alias resolution response message, the MCPTT client 1 abandons the first MCPTT private call request in step 3 and sends a new MCPTT private call request towards the resolved MCPTT ID.

NOTE 3: MCPTT client 1 and MCPTT client 2 set up a security association for the media, if end-to-end encryption is used for this call.

6. MCPTT server may provide a progress indication to MCPTT client 1 to indicate progress in the call setup process.

NOTE 4: Step 6 can occur at any time following step 5b, and prior to step 10.

7. If authorized, MCPTT server includes information that it communicates using MCPTT service, offers the same media types or a subset of the media types contained in the initial received request, includes the requested automatic commencement mode indication based on a requested automatic commencement mode by the calling user or based upon the setting of the called MCPTT client and sends the corresponding MCPTT private call request towards the MCPTT client 2, including the MCPTT ID and, if available, the functional alias of the calling MCPTT user 1. If the called MCPTT user has registered to the MCPTT service with multiple MCPTT UEs and has designated the MCPTT UE for receiving the private calls, then the incoming MCPTT private call request is delivered only to the designated MCPTT UE.
If location information was included in the private call request, the MCPTT server checks the privacy policy of the MCPTT user to decide if the location information of MCPTT client 1 can be provided to the other user on the call (refer to Annex A.3 "Authorisation to provide location information to other MCPTT users on a call when talking").

8. The receiving MCPTT client 2 notifies the user about the incoming private call and displays the functional alias of calling MCPTT user 1.

9. The receiving MCPTT client 2 accepts the private call automatically, and an MCPTT private call response is sent to the MCPTT server (via SIP core).

10. Upon receiving the MCPTT private call response from MCPTT client 2 accepting the private call request, the MCPTT server informs the MCPTT client 1 about successful call establishment.

11. MCPTT client 1 and MCPTT client 2 have successfully established media plane for communication and either user can transmit media. For successful call establishment for private call with floor control request from MCPTT client 1, floor participant at MCPTT client 1 is granted floor by the floor control server, giving it permission to transmit. At the same time floor participant at MCPTT client 2 is informed by the floor control server that floor is taken.

\* \* \* \* Next change \* \* \* \*

###### 10.7.2.2.2.2 Procedure

Both clients are served by the primary MCPTT service provider in figure 10.7.2.2.2.2-1.

Pre-conditions:

1. The calling MCPTT user has selected manual commencement mode or has not specified a commencement mode for the call; and

2. The called MCPTT client is set to manual commencement mode.

3. Optionally, MCPTT client 1 may use an activated functional alias for the call.

4. The MCPTT server has subscribed to the MCPTT functional alias controlling server within the MC system for functional alias activation/de-activation updates.



Figure 10.7.2.2.2.2-1: MCPTT private call in manual commencement mode– MCPTT users in the same MCPTT system

1. MCPTT client 1 and MCPTT client 2 are both registered and their respective users, MCPTT user 1 and MCPTT user 2, are authenticated and authorized to use the MCPTT service, as per procedure in subclause 10.2.

2. MCPTT user at MCPTT client 1 would like to initiate an MCPTT private call for the selected MCPTT user. The MCPTT user at MCPTT client 1 may include a functional alias used within the MCPTT private call. For a private call with floor control, floor control is to be established. For private call without floor control, both users will have the ability to transmit without floor arbitration.

3. MCPTT client 1 sends an MCPTT private call request addressed to the MCPTT ID of MCPTT user 2 using an MCPTT service identifier as defined in 3GPP TS 23.228 [5] (possible for the SIP core to route the request to the MCPTT server). The MCPTT private call request contains the MCPTT ID or the functional alias of invited user and an SDP offer containing one or more media types. The MCPTT private call request may also contain a data element that indicates that MCPTT client 1 is requesting the floor, for a private call with floor control. The MCPTT client 1 may include a requested commencement mode that indicates that the call is to be established in manual commencement mode if manual commencement mode is requested by the initiating user.

NOTE 1: As part of this step, MCPTT client 1 and MCPTT client 2 set up a security association (when no functional alias is present), if end-to-end encryption is used for this call.

4. The MCPTT server confirms that both MCPTT users are authorized for the private call. MCPTT server verifies whether the provided functional alias, if present, can be used and has been activated for the user. The MCPTT server shall resolve the functional alias to the corresponding MCPTT ID(s) for which the functional alias is active. The MCPTT server shall also check whether MCPTT client 1 is allowed to use the functional alias of MCPTT client 2 to setup a private call and whether MCPTT client 2 is allowed to receive a private call from MCPTT client 1 using the functional alias. The MCPTT server checks the commencement mode setting of the called MCPTT client and also checks whether the MCPTT user at MCPTT client 1 is authorized to initiate a call in manual commencement mode.

NOTE 2: Depending on implementation the MCPTT server can apply additional call restrictions and decide whether the call is allowed to proceed with the resolved MCPTT ID(s) (e.g. whether the MCPTT ID is within the allowed area of the functional alias). If the MCPTT server detects that the functional alias used as the target of the private call request is simultaneously active for multiple MCPTT users, then the MCPTT server can proceed by selecting an appropriate MCPTT ID based on some selection criteria (e.g. current location of the initiating user to determine the dispatcher who is responsible for the related geographic area). The selection of an appropriate MCPTT ID is left to implementation. This selection criteria can include rejection of the call, if no suitable MCPTT ID is selected.

5a. If the MCPTT private call request contains a functional alias instead of an MCPTT ID as called party, the MCPTT server responds with a functional alias resolution response message that contains the resolved MCPTT ID back to MCPTT client 1.

5b. If the MCPTT server replies with a MCPTT functional alias resolution response message, the MCPTT client 1 abandons the first MCPTT private call request in step 3 and sends a new MCPTT private call request towards the resolved MCPTT ID.

NOTE 3: MCPTT client 1 and MCPTT client 2 set up a security association for the media, if end-to-end encryption is used for this call.

6. The MCPTT server includes information that it communicates using MCPTT service, offers the same media types or a subset of the media types contained in the initial received request and sends an MCPTT private call request for the call to MCPTT client 2, including the MCPTT ID and, if available, the functional alias of the calling MCPTT user 1. If the called MCPTT user has registered to the MCPTT service with multiple MCPTT UEs and has designated the MCPTT UE for receiving the private calls, then the incoming MCPTT private call request is delivered only to the designated MCPTT UE.
If location information was included in the private call request, the MCPTT server checks the privacy policy of the MCPTT user to decide if the location information of MCPTT client 1 can be provided to the other user on the call (refer to Annex A.3 "Authorisation to provide location information to other MCPTT users on a call when talking").

7. MCPTT server may provide a progress indication to MCPTT client 1 to indicate progress in the call setup process.

NOTE 4: Step 7 can occur at any time following step 5b, and prior to step 8b.

8a. The MCPTT user is alerted and may display the functional alias of calling MCPTT user 1. MCPTT client 2 sends an MCPTT ringing to the MCPTT server.

8b. The MCPTT server sends an MCPTT ringing to MCPTT client 1, indicating that MCPTT client 2 is being alerted.

9. MCPTT user 2 has accepted the call using manual commencement mode (i.e., has taken some action to accept via the user interface) which causes MCPTT client 2 to send an MCPTT private call response to the MCPTT server. If MCPTT user 2 has not accepted the incoming call, the MCPTT client 2 sends a call failure response to the MCPTT server without adding reason for call failure.

10. The MCPTT server sends an MCPTT private call response to MCPTT client 1 indicating that MCPTT user 2 has accepted the call, including the accepted media parameters.

11. The media plane for communication is established. Either user can transmit media individually when using floor control. For successful call establishment for private call with floor request from MCPTT client 1, the floor participant associated with MCPTT client 1 is granted the floor initially. At the same time the floor participant associated with MCPTT client 2 is informed that the floor is taken. The meaning of the floor request (give floor initially to originator [client 1], or give floor initially to target [client 2]) may be configurable. For a private call without floor control both users are allowed to transmit simultaneously.

\* \* \* \* Next change \* \* \* \*

#### 10.19.2.3 Ad hoc group call request (MCPTT server – group host MCPTT server)

Table 10.19.2.3-1 describes the information flow ad hoc group call request between the MCPTT server and the group host MCPTT server.

Table 10.19.2.3-1: Ad hoc group call request information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the calling party |
| Functional alias | O | The functional alias of the calling party |
| MCPTT ad hoc group ID | M | The MCPTT group ID to be associated with the ad hoc group call |
| MCPTT ID list(see NOTE 1, NOTE 3)  | O | MCPTT IDs of the participants being invited for the ad hoc group call |
| SDP offer | M | Offered Media parameters of MCPTT server |
| Implicit floor request (see NOTE 4) | O | Indicates that the originating client requests the floor |
| Broadcast indicator(see NOTE 2) | O | Indicates that the ad hoc group call request is for a broadcast ad hoc group call |
| Imminent peril indicator (see NOTE 2) | O | Indicates that the ad hoc group call request is an MCPTT imminent peril ad hoc group call |
| Emergency Indicator (see NOTE 2) | O | Indicates that the ad hoc group call request is an MCPTT emergency ad hoc group call |
| Preconfigured MCPTT group ID | O  | Group identity whose configuration is to be applied for this ad hoc group call. |
| Criteria for determining the participants (see NOTE 3) | O | Carries the details of criteria or meaningful label identifying the criteria or the combination of both which will be used by the MCPTT server for determining the participants e.g., it can be a location based criteria to invite participants in a particular area |
| Requested priority | O | Application priority level requested for this group call |
| Location information | O | Location of the calling party.  |
| NOTE 1: This element is included only when the originating client sends the list of participants.NOTE 2: If used, only one of these information elements is present.NOTE 3: Only one of these information elements is present.NOTE 4: This information element shall be included only when the originating client requests the floor. |

Editor's Note: It is FFS if the server to server message is needed in a call request or response message.

\* \* \* \* End of changes \* \* \* \*