**3GPP TSG-CT WG1 Meeting #130-eC1-213628**

**Electronic meeting, 20-28 May 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.380** | **CR** | **0306** | **rev** | **1** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *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:*** | Clean-up of floor queued cancel related procedures | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh3MCPTT-CT | | | | |  | ***Date:*** | | | 2021-05-25 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | A number of issues with the procedures and terminology of the removal of users from the active floor request queue has been found:  -The message type defined is Floor Queue Cancel message, and this message can have fields in it indicating the purpose of this message. The terms Floor Queued Cancel Request message, Response to Floor Queude Cancel Request message and Floor Queue Cancel Notification message have been used as different message types which is confusing.  -Some procedures lack the information about what state the procedure result will be.  --The term floor control queue has been introduced, related to the cancel request procedures, while the rest of the specifications refer to the floor request queue. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | -Floor Queued Cancel message has been used consistently.  -Related changes like inclusion of the former Message Type field has been introduced.  -The term Message Type above was changed to Purpose, as this is not a new message type.  -Removal of the term floor control queue.  -Further editorial changes. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Inconsistent terminology with the rest of the specification regarding what is a message type. Missing specification on state in some of the state machines. Difficult to read specification with unclear or ambiguous terminology. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2.4.1, 6.2.4.7.4, 6.2.4.7.5, 6.2.4.7.6, 6.2.4.9.1.5, 6.3.4.1, 6.3.4.4.13, 6.3.4.5.7, 6.3.5.1, 6.3.5.4.12, 6.3.5.4.13, 6.3.5.4.14, 6.3.5.5.11, 6.3.5.5.12, 6.3.5.5.13, 8.2.3.1, 8.2.3.23, 8.2.3.25, 8.2.15, 11.1.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Rev-1: Removed some "request".  reworked 6.2.4.1 so it is seen that the figure is new.  Some clean-up based on comments | | | | | | | | |

\* \* \* First Change \* \* \* \*

#### 6.2.4.1 General

The floor participant shall behave according to the state diagram and the state transitions specified in this subclause.

Figure 6.2.4.1-1 shows the state diagram for 'Floor participant state transition diagram for basic operation'.



Figure 6.2.4.1-1: Floor participant state transition diagram for basic operation.

State details are explained in the following subclauses.

If an RTP media packet or a floor control message arrives in a state where there is no specific procedure specified for the RTP media packets or the received floor control message, the floor participant shall discard the floor control message or the RTP media packet and shall remain in the current state.

NOTE 1: A badly formatted RTP packet or floor control message received in any state is ignored by the floor participant and does not cause any change of the current state.

NOTE 2: The state transition diagram is the same for groups configured for audio cut-in floor control but the U: queued state should never be visited.

\* \* \* Next Change \* \* \* \*

##### 6.2.4.7.4 Send Floor Queued Cancel message (S: Send Floor Queued Cancel)

Upon receipt of a request from the MCPTT client to cancel the floor requests of other MCPTT users, whose floor requests are queued, the floor participant:

1. shall send the Floor Queued Cancel message as described in subclause 8.2.15 including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '0' (Cancel Request);

2. shall start timer T134 (Floor Queued Cancel); and

3. shall remain in the current state.

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

##### 6.2.4.7.5 Timer T134 (Floor Queued Cancel) expired

On expiry of timer T134 (Floor Queued Cancel), the floor participant:

1. shall provide a floor queued cancel timeout to the MCPTT client, and

2. shall remain in the current state.

NOTE: It is an implementation option to handle the timer expiry event and what action to take.

##### 6.2.4.7.6 Receive Floor Queued Cancel message (R: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request), the floor participant:

1. if the first bit in the subtype of the Floor Queued Cancel message is set to '1' (Acknowledgment is required) as described in subclause 8.2.2, shall send a Floor Ack message. The Floor Ack message:

a. shall include the Message Type field set to '14' (Floor Queued Cancel); and

b. shall include the Source field set to '0' (the floor participant is the source);

2. may provide the result of a message for cancellation of a queued floor request to the MCPTT user;

3. shall stop the timer T134 (Floor Queued Cancel), if running; and

4. shall remain in the current state.

\* \* \* Next Change \* \* \* \*

##### 6.2.4.9.15 Receive Floor Queued Cancel message (R: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '2' (Cancel Notification), the floor participant:

1. if the first bit in the subtype of the Floor Queued Cancel message is set to '1' (Acknowledgment is required) as described in subclause 8.2.2, shall send a Floor Ack message. The Floor Ack message:

a. shall include the Message Type field set to '14' (Floor Queued Cancel); and

b. shall include the Source field set to '0' (the floor participant is the source);

2. shall provide a floor queued cancellation notification to the MCPTT user;

3. may display the requesting user for a cancellation of a queued floor request to the user using information in the Requested Party's Identity field;

4. shall stop timer T104 (Floor Queue Position Request), if running; and

5. shall enter the 'U: has no permission' state.

\* \* \* Next Change \* \* \* \*

#### 6.3.4.1 General

The floor control server arbitration logic in the floor control server shall behave according to the state diagram and state transitions specified in this subclause.

Figure 6.3.4.1-1 shows the general floor control operation states (G states) and the state transition diagram.



Figure 6.3.4.1-1: Floor control server state transition diagram for 'general floor control operation'

The floor control arbitration logic in the floor control server shall keep one instance of the 'general floor control operation' state machine per MCPTT call.

If floor control messages or RTP media packets arrives in a state where there is no procedure specified in the following subclauses the floor control arbitration logic in the floor control server:

1. shall discard the floor control message;

2. shall request the media distributor in the MCPTT server to discard any received RTP media packet; and

3. shall remain in the current state.

State details are explained in the following subclauses.

\* \* \* Next Change \* \* \* \*

##### 6.3.4.4.13 Floor Queued Cancel message (R: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '0' (Cancel Request), from the associated floor participant, the floor control arbitration logic in the floor control server:

1. if the active floor request queue is empty:

a. shall send a Floor Queued Cancel message to the associated floor participant as described in subclause 8.2.15. The Floor Queued Cancel message:

i. shall include a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request);

ii. shall include a Floor Queue Cancel Response State field with the Floor Queue Cancel Response State Value set to '2' (Fail – Queue is Empty); and

iii. if the Floor Request included a Track Info field, shall include the received Track Info field; and

b. may set the first bit in the subtype of the Floor Queued Cancel message to '1' (Acknowledgment is required) as described in subclause 8.2.2; and

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

c. shall remain in the 'G: Floor Taken' state; and

2. if the active floor request queue is not empty:

a. shall remove the queued floor request of the users identified in the List of User IDs field from the active floor request queue;

b. shall send a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '2' (Cancel Notification), to the associated floor participants whose floor requests have been removed from the queue and message is generated as described in the subclause 8.2.15;

c. shall send a Floor Queued Cancel message to the associated floor participant as described in subclause 8.2.15. The Floor Queued Cancel:

i. shall include a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request);

ii. shall include a Floor Queue Cancel Response State field with the Floor Queue Cancel Response State Value set to '0' (Success);

iii. if the Floor Request included a Track Info field, shall include the received Track Info field; and

iv. shall include the list of users whose queued floor request does not exist in the active floor request queue in the List of Users field;

d. may send a Floor Queue Position Info message to the remaining users in the active floor request queue if any, if negotiated support of queueing of floor requests as specified in clause 14. The Floor Queue Position Info message:

i. shall include the queue position and floor priority in the Queue Info field; and

ii. if the Floor Request message included a Track Info field, shall include the received Track Info field; and

e. shall remain in the 'G: Floor Taken' state.

\* \* \* Next Change \* \* \* \*

##### 6.3.4.5.7 Receive Floor Queued Cancel message (R: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '0' (Cancel Request), from the associated floor participant, the floor control arbitration logic in the floor control server:

1. if the active floor request queue is empty:

a. shall send a Floor Queued Cancel message to the associated floor participant as described in subclause 8.2.15. The Floor Queued Cancel:

i. shall include a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request);

ii. shall include a Floor Queue Cancel Response State field with the Floor Queue Cancel Response State Value set to '2' (Fail – Queue is Empty); and

iii. if the Floor Request included a Track Info field, shall include the received Track Info field; and

b. may set the first bit in the subtype of the Floor Queued Cancel message to '1' (Acknowledgment is required) as described in subclause 8.2.2; and

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

c. shall remain in the 'G: pending Floor Revoke' state.

2. if the active floor request queue is not empty:

a. shall remove the queued floor request of the users identified in the List of User IDs field from the active floor request queue;

b. shall send a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '2' (Cancel Notification), to the associated floor participants whose floor requests have been removed from the queue and message is generated as described in subclause 8.2.15;

c. shall send a Floor Queued Cancel message to the associated floor participant as described in the subclause 8.2.15. The Floor Queued Cancel message:

i. shall include a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request);

ii. shall include a Floor Queue Cancel Response State field with the Floor Queue Cancel Response State Value set to '0' (Success);

iii. if the Floor Request included a Track Info field, shall include the received Track Info field; and

iv. shall include the list of users whose queued floor request does not exist in the active floor request queue in the List of Users field; and

d. may send a Floor Queue Position Info message to the remaining users in the active floor request queue if any, if negotiated support of queueing of floor requests as specified in clause 14. The Floor Queue Position Info message:

i. shall include the queue position and floor priority in the Queue Info field; and

ii. if the Floor Request message included a Track Info field, shall include the received Track Info field; and

e. shall remain in the 'G: pending Floor Revoke' state.

\* \* \* Next Change \* \* \* \*

#### 6.3.5.1 General

The floor control interface towards the MCPTT client in the floor control server shall behave according to the state diagram and state transitions specified in this subclause.

Figure 6.3.5.1-1 shows the states and state transitions for an associated floor participant in the floor control server.



Figure 6.3.5.1-1: Floor control server state transition diagram for basic floor control operation towards the floor participant

The floor control interface towards the MCPTT client in the floor control server shall create one instance of the 'basic floor control operations' state machine towards the MCPTT client for every floor participant served by the floor control server as follows:

1. For pre-arranged group call in case of an originating MCPTT call, the 'basic floor control operation towards the floor participant' state machine shall be created when the MCPTT server sends the SIP 200 (OK) response towards the originating MCPTT client.

2. For pre-arranged group call in case of a terminating MCPTT call, the 'basic floor control operation towards the floor participant' state machine shall be created when the floor control server receives the SIP 200 (OK) response.

3. For chat group call the 'basic floor control operation state machine towards the floor participant' shall be created when the MCPTT server sends the SIP 200 (OK) response to the received initial SIP INVITE request.

The floor participant associated to the 'basic floor control operation towards the floor participant' state machine is here referred to as the "associated floor participant".

The external inputs to the state machine are:

1. directives coming from the floor control arbitration logic;

2. floor control messages sent by the floor participants;

3. media; and

4. in certain cases, SIP messages used for call handling.

If floor control messages or RTP media packets arrives in a state where there is no procedure specified in the following subclauses, the floor control interface towards the MCPTT client in the floor control server:

1. shall discard the floor control message;

2. shall request the network media interface in the MCPTT server to discard any received RTP media packet; and

3. shall remain in the current state.

State details are explained in the following subclauses.

\* \* \* Next Change \* \* \* \*

##### 6.3.5.4.12 Receive Floor Queued Cancel message (R: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '0' (Cancel Request), from the associated floor participant:

1. if the MCPTT ID of the associated floor participant is an authorized user (e.g dispatcher) to cancel the floor requests of other MCPTT users, the floor control interface towards the MCPTT client in the floor control server:

a. shall forward the Floor Queued Cancel message to the floor control server arbitration logic; and

b. shall remain in the 'U: not permitted and Floor Taken' state; and

2. if the MCPTT ID of the associated floor participant is not an authorized user (participant type is not dispatcher, dispatch supervisor or MC service administrator) to cancel the floor requests of other MCPTT users, the floor control interface towards the MCPTT client in the floor control server:

a. shall send a Floor Queued Cancel message to the associated floor participant as described in subclause 8.2.15. The Floor Queued Cancel message:

i. shall include a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request);

ii. shall include a Floor Queue Cancel Response State field with the Floor Queue Cancel Response State Value set to '1' (Fail - Not Authorized); and

iii. if the Floor Request included a Track Info field, shall include the received Track Info field;

b. may set the first bit in the subtype of the Floor Queued Cancel message to '1' (Acknowledgment is required) as described in subclause 8.2.2; and

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

c. shall remain in the 'U: not permitted and Floor Taken' state.

##### 6.3.5.4.13 Send Floor Queued Cancel message (S: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request), from the floor control server arbitration logic in the MCPTT server, the floor control interface towards the MCPTT client in the floor control server:

1. shall forward the Floor Queued Cancel message to the floor participant; and

2. shall remain in the 'U: not permitted and Floor Taken' state.

##### 6.3.5.4.14 Send Floor Queued Cancel message (S: Floor Queued Cancel )

When a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '2' (Cancel Notification), is received from the floor control arbitration logic in the MCPTT server, the floor control interface towards the MCPTT client in the floor control server:

1. shall forward the Floor Queued Cancel message to the associated floor participant;

2. may set the first bit in the subtype of the Floor Queued Cancel message to '1' (Acknowledgment is required) as described in subclause 8.2.2; and

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

3. shall remain in the 'U: not permitted and Floor Taken' state.

\* \* \* Next Change \* \* \* \*

##### 6.3.5.5.11 Receive Floor Queued Cancel message (R: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '0' (Cancel Request), from the associated floor participant:

1. if the MCPTT ID of the associated floor participant is an authorized user (e.g dispatcher) to cancel the floor request of other MCPTT users, the floor control interface towards the MCPTT client in the floor control server:

a. shall forward the Floor Queued Cancel message to the floor control server arbitration logic; and

b. shall remain in the 'U: permitted' state; and

2. if the MCPTT ID of the associated floor participant is not an authorized user (participant type is not dispatcher, dispatch supervisor or MC service administrator) to cancel the floor request of other MCPTT users, the floor control interface towards the MCPTT client in the floor control server:

a. shall send a Floor Queued Cancel message to the associated floor participant as described in subclause 8.2.15. The Floor Queued Cancel:

i. shall include a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request);

ii. shall include in the Floor Queue Cancel Response State Value set to '1' (Fail - Not Authorized); and

iii. if the Floor Request included a Track Info field, shall include the received Track Info field;

b. may set the first bit in the subtype of the Floor Queued Cancel message to '1' (Acknowledgment is required) as described in subclause 8.2.2; and

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

c. shall remain in the 'U: permitted' state.

##### 6.3.5.5.12 Send Floor Queued Cancel message (S: Floor Queued Cancel)

Upon receiving a Floor Queued Cancel message, including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '1' (Response of Cancel Request), from the floor control server arbitration logic in the MCPTT server, the floor control interface towards the MCPTT client in the floor control server:

1. shall forward the Floor Queued Cancel message to the floor participant; and

2. shall remain in the 'U: permitted' state.

##### 6.3.5.5.13 Send Floor Queued Cancel message (S: Floor Queued Cancel)

When a Floor Queued Cancel message including a Floor Queued Cancel Purpose field with the Floor Queued Cancel Purpose value set to '2' (Cancel Notification), is received from the floor control arbitration logic in the MCPTT server, the floor control interface towards the MCPTT client in the floor control server:

1. shall forward the Floor Queued Cancel message to the associated floor participant;

2. may set the first bit in the subtype of the Floor Queued Cancel message to '1' (Acknowledgment is required) as described in subclause 8.2.2; and

NOTE: It is an implementation option to handle the receipt of the Floor Ack message and what action to take if the Floor Ack message is not received.

3. shall remain in the 'U: permitted' state.

\* \* \* Next Change \* \* \* \*

#### 8.2.3.1 Introduction

This subclause describes the floor control specific data fields.

The floor control messages can include floor control specific data fields contained in the application-dependent data of the floor control message. The floor control specific data fields follow the syntax specified in subclause 8.1.3.

Table 8.2.3.1-1: Void

Table 8.2.3.1-2 lists the available floor control specific data fields including the assigned field ID.

Table 8.2.3.1-2: Floor control specific data fields

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field name | | Field ID | | | | Reference | |
| Decimal | | Binary | |
| Floor Priority | | 000 | | 00000000 | | Subclause 8.2.3.2 | |
| Duration | | 001 | | 00000001 | | Subclause 8.2.3.3 | |
| Reject Cause | | 002 | | 00000010 | | Subclause 8.2.3.4 | |
| Queue Info | | 003 | | 00000011 | | Subclause 8.2.3.5 | |
| Granted Party's Identity | | 004 | | 00000100 | | Subclause 8.2.3.6 | |
| Permission to Request the Floor | | 005 | | 00000101 | | Subclause 8.2.3.7 | |
| User ID | | 006 | | 00000110 | | Subclause 8.2.3.8 | |
| Queue Size | | 007 | | 00000111 | | Subclause 8.2.3.9 | |
| Message Sequence-Number | | 008 | | 00001000 | | Subclause 8.2.3.10 | |
| Queued User ID | | 009 | | 00001001 | | Subclause 8.2.3.11 | |
| Source | | 010 | | 00001010 | | Subclause 8.2.3.12 | |
| Track Info | | 011 | | 00001011 | | Subclause 8.2.3.13 | |
| Message Type | | 012 | | 00001100 | | Subclause 8.2.3.14 | |
| Floor Indicator | | 013 | | 00001101 | | Subclause 8.2.3.15 | |
| SSRC | | 014 | | 00001110 | | Subclause 8.2.3.16 | |
| List of Granted Users | | 015 | | 00001111 | | Subclause 8.2.3.17 | |
| List of SSRCs | | 016 | | 00010000 | | Subclause 8.2.3.18 | |
| Functional Alias | | 017 | | 00010001 | | Subclause 8.2.3.19 | |
| List of Functional Aliases | | 018 | | 00010010 | | Subclause 8.2.3.20 | |
| Location | | 019 | | 00010011 | | Subclause 8.2.3.21 | |
| List of Locations | | 020 | | 00010100 | | Subclause 8.2.3.22 | |
| Floor Queued Cancel Purpose | | 021 | | 00010101 | | Subclause 8.2.3.23 | |
| List of Users | | 022 | | 00010110 | | Subclause 8.2.3.24 | |
| Response State | | 023 | | 00010111 | | Subclause 8.2.3.25 | |
| Media Flow Control Indicator | | 024 | | 00011000 | | Subclause 8.2.3.26 | |

The following subclauses describe the coding of each field.

\* \* \* Next Change \* \* \* \*

#### 8.2.3.23 Floor Queued Cancel Purpose field

The Floor Queued Cancel Purpose field contains the type of the message requested i.e Cancel Request, Cancel Notification and Response of Cancel Request.

Table 8.2.3.23-1 describes the coding of the Floor Queued Cancel Purpose field.

Table 8.2.3.23-1: Floor Queued Cancel Purpose field coding

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Floor Queued | Floor Queued | Floor Queued Cancel |

| Cancel | Cancel | Purpose |

| Purpose | Purpose | |

| field ID | Length | |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

The < Floor Queued Cancel Purpose field ID> value is a binary value and is set according to table 8.2.3.1-2.

The < Floor Queued Cancel Purpose Length> value is a binary value and has the value '2' indicating the total length in octets of the <Floor Queued Cancel Purpose> value item.

The < Floor Queued Cancel Purpose> value is a 16-bit binary value with the following values:

'0' Cancel Request

'1' Response of Cancel Request

'2' Cancel Notification

All other values are reserved for future use.

\* \* \* Next Change \* \* \* \*

#### 8.2.3.25 Floor Queue Cancel Response State field

The Floor Queue Cancel Response State field indicates the result of the Floor Queued Cancel message (Cancel Request).

Table 8.2.3.25-1 describes the coding of the Floor Queue Cancel Response State field.

Table 8.2.3.25-1: Floor Queue Cancel Response State field coding

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Floor Queue | Floor Queue | Floor Queue |

| Cancel Response | Cancel Response | Cancel Response |

| State field ID | State length | State Value |

| value | | |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

The <Floor Queue Cancel Response State field ID> value is a binary value and shall be set according to table 8.2.3.1-2.

The <Floor Queue Cancel Response State length> value is a binary value and shall have the value '2' indicating the total length in octets of the <Floor Queue Cancel Response State> value item.

The <Floor Queue Cancel Response State Value> value is a 16-bit binary value with the following values:

'0' Success

'1' Fail - Not Authorized

'2' Fail - Queue is empty

‘3’ Fail – Floor Request does not exist for the specified users

'4' Fail - Unknown reason

All other values are reserved for future use.

\* \* \* Next Change \* \* \* \*

### 8.2.15 Floor Queued Cancel message

The Floor Queued Cancel message represents a set of purposes (e.g. Cancel request, Response of Cancel Request, Cancel notification) that supports an authorized user (e.g dispatcher) to cancel the queued floor request of other MCPTT users; to notify other MCPTT users of their queued requests is being cancelled and to the originator of the request to indicate the status of cancellation of queued floor request.

The Floor Queued Cancel message is used in the on-network mode. In the on-network mode the Floor Queued Cancel message is only used over the unicast bearer.

Table 8.2.15-1 shows the content of the Floor Queued Cancel message.

Table 8.2.15-1: Floor Queued Cancel message

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|V=2|P| Subtype | PT=APP=204 | length |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| SSRC of floor participant/floor control server/arbitrator |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| name=MCPT |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Functional Alias field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Track Info field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| List of Users field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Requested Party's Identity field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Floor Queued Cancel Purpose field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Floor Queue Cancel Response State field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

With the exception of the three first 32-bit words the order of the fields is irrelevant.

**Subtype:**

The subtype is coded according to table 8.2.2-1.

**Length:**

The length is coded as specified in subclause 8.1.2.

**SSRC:**

The SSRC field carries the SSRC of the floor participant / floor control server / floor arbitrator.

If the message is for cancellation of a queued floor request, then the SSRC shall be that of the floor participant who is requesting cancellation.

If the message is for notifying the cancellation of a queued floor request to the other floor participants or is a response to a message for cancellation of a queued floor request originated by a floor participant, then the SSRC shall be that of the floor control server / floor arbitrator.

The SSRC field is coded as specified in IETF RFC 3550 [3].

**Functional Alias:**

This field shall be included if the message is for a cancellation of a queued floor request from a floor participant or is a response to a message for cancellation of a queued floor request originated by a floor participant. The Functional Alias field is coded as described in subclause 8.2.3.19.

**Track Info:**

The Track Info field is included when an MCPTT call involves a non-controlling MCPTT function. The coding of the Track Info field is described in subclause 8.2.3.13.

**List of Users:**

The List of Users field is used only in sending a message for cancellation of a queued floor request of other MCPTT users and for sending a response message to the cancellation of a queued floor request. The List of Users field is coded as specified in subclause 8.2.3.24 and indicates the list of users whose request for permission to send media is queued.

In the case of sending a response message to the cancellation of a queued floor request, the List of Users field indicates the list of users whose request for permission to send media is no longer queued.

**Requested Party's Identity field:**

The Requested Party’s Identity field shall be added only when the Floor Queue Cancel message is originated by a floor participant user. This field shall not be added if the Floor Queue Cancel message is originated by the floor control server (due to local policies). This field is also included when the Floor Queued Cancel message is a response to the cancellation of a queued floor request originated by a floor participant. The Requested Party’s Identity field is coded as specified in subclause 8.2.3.8.

**Floor Queued Cancel Purpose field:**

The Floor Queued Cancel Purpose field is coded as specified in subclause 8.2.3.23.

**Floor Queue Cancel Response State field:**

The Floor Queue Cancel Response State field is included only when sending a response message to the cancellation of a queued floor request originated by a floor participant. The Floor Queue Cancel Response State field is coded as specified in subclause 8.2.3.25.

\* \* \* Next Change \* \* \* \*

### 11.1.1 Timers in the on-network floor participant

The table 11.1.1-1 recommends timer values, describes the reason for starting the timer, normal stop and the action on expiry for the on-network floor participant procedures.

Table 11.1.1-1: Timers in the on-network floor participant

| Timer | Timer value | Cause of start | Normal stop | On expiry |
| --- | --- | --- | --- | --- |
| T100  (Floor Release) | Configurable as specified in 3GPP TS 24.483 [4].  (NOTE 1) | When the floor participant sends a Floor Release message. | Reception of a Floor Idle message or when the floor participant detects the receipt of RTP media. | If the counter is less than the upper limit of C100, a new Floor Release message is sent and counter is incremented by 1.  When the limit in C100 is reached, the floor participant stops sending the Floor Release message. |
| T101  (Floor Request) | Configurable as specified in 3GPP TS 24.483 [4].  (NOTE 2) | When the floor participant sends a Floor Request message.  T101 is also started when the application layer and signalling plane initiates a session as an implicit floor request using the "mc\_implicit\_request" as specified in clause 14. | Reception of a Floor Granted message, a Floor Taken message, or a Floor Deny message, a Floor Queue Position Info message | When T101 expires, a new Floor Request message is sent. |
| T103  (end of RTP media) | Should be equal to T1.  Configurable as specified in 3GPP TS 24.483 [4]. | Reception of a Floor Taken message or an RTP media packet.  T103 is reset and started again every time an RTP media packet is received. | The reception of a Floor Idle message. | When T103 expires the floor control client concludes that the RTP media, which it was started for, has completed. |
| T104 (Floor Queue Position Request) | Configurable as specified in 3GPP TS 24.483 [4].  T104 shall only permit a certain number of retransmissions of the Floor Queue Position Request message. | When the floor participant sends a Floor Queue Position Request message. | Reception of a Floor Queue Position Info message.  Leaving the ‘U: queued’ state. | If the counter is less than the upper limit of C104, a new Floor Queue Position Request message is sent and counter is incremented by 1.  When the limit in C104 is reached, the floor participant stops sending the Floor Queue Position Request message. |
| T132 (Queued granted user action) | Default value:  2 seconds.  Configurable as specified in 3GPP TS 24.483 [4]. | When the floor participant receives a Floor Granted message for a queued request. | When a floor participant in ‘U: queued’ state pushes PTT button. | The floor participant sends a Floor Release message and may indicate to the user that the floor is no more available |
| T134 (Floor Queued Cancel) | Default value:  2 seconds.  Shall be implementation specific and based on local policies | When the floor participant sends the Floor Queued Cancel message. | On receiving Floor Queued Cancel message with an appropriate Purpose field. | Shall indicate to the user and action can be implementation specific. |
| NOTE 1: The total time during which the floor participant retransmits the Floor Release messages shall be less than 6 seconds.  NOTE 2: The total time during which the floor participant retransmits Floor Request messages should be less than 6 seconds. | | | | |

\* \* \* End of Changes \* \* \* \*