**3GPP TSG-SA WG6 Meeting #39-bis-e S6-201781**

**e-meeting, 12th – 20th October 2020 (revision of S6-xxxxxx)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.379** | **CR** |  | **rev** | **Rev1** | **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:*** | Access resource information in MCPTT information flows | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh3MCPTT | | | | |  | ***Date:*** | | | 2020-10-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Deployment scenarios include that the control of bearers is only performed by the MCPTT server via the MCPTT-5 reference point (i.e. Rx reference point). However, in some deployment cases, e.g. when there is a SIP core providing NAT traversal, the local SIP proxy handles the connection negotiation and therefore, modifies the SDP between the MCPTT server and the MCPTT client. Hence, the MCPTT server does not obtain the required access resource details of the MCPTT client and media anchoring points to request network resources for the media plane via the MCPTT-5 reference point.  Also, the MCPTT emergency group call information flows are missing the required SDP offer/answer information elements, respectively. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Information flows are modified to include required access resources information which are missing to enable the request of network resources for the media plane via the MCPTT-5 reference point, e.g. when the SIP core provides NAT traversal for the MCPTT service.  Also, the required SDP offer/answer information elements are included in the MCPTT emergency group call information flows, respectively. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The MCPTT server cannot request network resources for the media plane via the MCPTT-5 reference point, e.g., when the SIP core provides NAT traversal. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 10.5.2.1, 10.6.2.2.1, 10.6.2.2.1a, 10.6.2.2.7, 10.6.2.2.12, 10.6.2.2.26, 10.6.2.2.28, 10.7.2.1.1, 10.7.2.1.3, 10.7.2.1.5, A.5. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \*

#### 10.5.2.1 Pre-established session establishment

Table 10.5.2.1-1 describes the information flow create pre-established session request from the MCPTT client to the MCPTT server, for the procedure defined in 3GPP TS 23.280 [16].

Table 10.5.2.1-1: Create pre-established session request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MCPTT ID of requester (originator) | M | This element identifies the MCPTT user that wishes to create a pre-established session. |
| SDP offer | M | SDP with media information offered by client (e.g. ports, codec, protocol id). |
| Access resource information (NOTE) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the requester MCPTT client |
| NOTE: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

Table 10.5.2.1-2 describes the information flow create pre-established session response from the MCPTT server to the MCPTT client, for the procedure defined in 3GPP TS 23.280 [16].

Table 10.5.2.1-2: Create pre-established session response

|  |  |  |
| --- | --- | --- |
| **Information element** | **Status** | **Description** |
| SDP Answer | M | SDP with media information offered by server (e.g. ports, codec, protocol id) |
| Session ID | M | This element identifies the specific session ID used for pre-established sessions. |

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

##### 10.6.2.2.1 MCPTT emergency group call request

Table 10.6.2.2.1-1 describes the information flow MCPTT emergency group call request from the MCPTT client to the MCPTT server and from the MCPTT server to the MCPTT client.

Table 10.6.2.2.1-1 MCPTT emergency group call request information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The identity of the calling party |
| Functional alias | O | The functional alias of the calling party |
| MCPTT group ID | M | The MCPTT group ID on which the call is to be conducted |
| Emergency indicator | M | Indicates that the group call request is an MCPTT emergency call |
| Alert indicator | M | Indicates whether an emergency alert is to be sent |
| Implicit floor request (NOTE 1) | O | Indicates that the originating client requests the floor. |
| Location | O | Location of the calling party |
| SDP offer | M | Media parameters of MCPTT clients |
| Access resource information (NOTE 2) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the calling MCPTT client |
| NOTE 1: This element shall be included only when this information flow is from the client to the server and the originating client requests the floor.  NOTE 2: This element shall be included only when this information flow is from the client to the server, and the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

##### 10.6.2.2.1a MCPTT emergency group call response

Table 10.6.2.2.1a-1 describes the information flow MCPTT emergency group call response from the MCPTT client to the MCPTT server and from the MCPTT server to the MCPTT client.

Table 10.6.2.2.1a-1 MCPTT emergency group call response information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The identity of the target MCPTT group member |
| MCPTT group ID | M | The MCPTT group ID on which the call is to be conducted |
| SDP answer | M | Media parameters selected |
| Result | M | Result of the MCPTT emergency group call request (success or failure) |
| Access resource information (NOTE) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the target MCPTT group member's client and the media anchoring points |
| NOTE: This element shall be included only when this information flow is from the client to the server, and the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

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

Table 10.6.2.2.7-1 describes the information flow group call request from the MCPTT client to the MCPTT server.

Table 10.6.2.2.7-1 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 group ID (NOTE 1) | O | The MCPTT group ID of the group on which the call is requested |
| SDP offer | M | Media parameters of MCPTT clients |
| Implicit floor request | O | When originating client requests the floor, this element shall be included |
| Broadcast indicator | O | Indicates that the group call request is for a broadcast group call |
| MCPTT ID list | O | The MCPTT ID of users being invited to the temporary group call - user regroup |
| Temporary group indicator | O | Indicates that the group call request is for a temporary group call - user regroup |
| Location information | O | Location of the calling party. |
| Requested priority | O | Application priority level requested for this call |
| Access resource information (NOTE 2) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the calling MCPTT client |
| NOTE 1: The MCPTT group ID shall not be present for the temporary group call - user regroup.  NOTE 2: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

##### 10.6.2.2.12 Group call response (MCPTT client – MCPTT server)

Table 10.6.2.2.12-1 describes the information flow group call response from the MCPTT client to the MCPTT server.

Table 10.6.2.2.12-1 Group call response information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the target MCPTT group member |
| Functional alias | O | The functional alias of the target MCPTT group member |
| MCPTT group ID | M | The MCPTT group ID of the group on which the call is initiated |
| SDP answer | M | Media parameters selected |
| Result | M | Result of the group call request (success or failure) |
| Access resource information (NOTE) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the target MCPTT group member's client and the media anchoring points |
| NOTE: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

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

Table 10.6.2.2.26-1 describes the information flow group-broadcast group call request from the MCPTT client to the MCPTT server.

Table 10.6.2.2.26-1 Group-broadcast 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 group ID | M | The MCPTT group ID of the group on which the call is requested |
| SDP offer | M | Media parameters of MCPTT clients |
| Implicit floor request | M | When originating client requests the floor, this element shall be included |
| Broadcast indicator | M | Indicates that the group call request is for a broadcast group call |
| Location information | O | Location of the calling party |
| Requested priority | O | Application priority level requested for this call |
| Access resource information (NOTE) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the calling MCPTT client |
| NOTE: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

##### 10.6.2.2.28 Group-broadcast group call response (MCPTT client – MCPTT server)

Table 10.6.2.2.28-1 describes the information flow group-broadcast group call response from the MCPTT client to the MCPTT server.

Table 10.6.2.2.28-1 Group-broadcast group call response information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the target MCPTT group member |
| Functional alias | O | The functional alias of the target MCPTT group member |
| MCPTT group ID | M | The MCPTT group ID of the group on which the call is initiated |
| SDP answer | M | Media parameters selected |
| Result | M | Result of the group-broadcast group call request (success or failure) |
| Access resource information (NOTE) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the target MCPTT group member's client and the media anchoring points |
| NOTE: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

##### 10.7.2.1.1 MCPTT private call request (MCPTT client to MCPTT server)

Table 10.7.2.1.1-1 describes the information flow MCPTT private call request from the MCPTT client to the MCPTT server.

Table 10.7.2.1.1-1: MCPTT private call request (MCPTT client to MCPTT server) 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 (see NOTE 1) | O | The MCPTT ID of the called party |
| Functional alias (see NOTE 1) | 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 | O | Media parameters of MCPTT client. |
| Requested commencement mode | O | An indication that is included if the user is requesting a particular commencement mode |
| Implicit floor request | O | An indication that the user is also requesting the floor. |
| Location information | O | Location of the calling party |
| Requested priority | O | Application priority level requested for this call |
| Transfer indicator | O | Indicates that the MCPTT private call request is a result of a call transfer (true/false) |
| Forwarding indicator | O | Indicates that the MCPTT private call request is a result of a call forwarding.(true/false) |
| Access resource information (NOTE 2) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the calling MCPTT client |
| NOTE 1: At least one identity must be present.  NOTE 2: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

##### 10.7.2.1.3 MCPTT private call response (MCPTT client to MCPTT server)

Table 10.7.2.1.3-1 describes the information flow MCPTT private call response from the MCPTT client to the MCPTT server.

Table 10.7.2.1.3-1: MCPTT private call response (MCPTT client to MCPTT server) 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 | O | The MCPTT ID of the called party |
| Functional alias | O | The functional alias of the called party |
| SDP answer | M | Media parameters selected |
| Requested commencement mode | O | An indication of the commencement mode to be used. |
| Access resource information (NOTE) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the called MCPTT client and the media anchoring points |
| NOTE: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

##### 10.7.2.1.5 MCPTT emergency private call request (MCPTT client to MCPTT server)

Table 10.7.2.1.5-1 describes the information flow MCPTT emergency private call request from the MCPTT client to the MCPTT server.

Table 10.7.2.1.5-1: MCPTT emergency private call request (MCPTT client to MCPTT server) 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 (NOTE 1) | O | The MCPTT ID of the called party |
| Functional alias (NOTE 1) | O | The functional alias of the called party |
| Emergency indicator | M | Indicates that the private call request is an MCPTT emergency call |
| Alert indicator | M | Indicates whether an emergency alert is to be sent |
| 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. |
| SDP offer | M | Media parameters of MCPTT client. |
| Requested priority | O | Priority level requested for the call. |
| Location information | O | Location of the calling party |
| Access resource information (NOTE 2) | O | Provides access resource details related to the media plane, e.g. IP addresses and ports of the calling MCPTT client |
| NOTE 1: Only one identity shall be present.  NOTE 2: This element shall be included when the MCPTT server requests network resources via the MCPTT-5 reference point. | | |

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

# A.5 MCPTT service configuration data

The general aspects of MC service configuration are specified in 3GPP TS 23.280 [16]. The MCPTT service configuration data is stored in the MCPTT server.

Tables A.5-1 and A.5-2 describe the configuration data required to support the use of on-network MCPTT service. Tables A.5-1 and A.5-3 describe the configuration data required to support the use of off-network MCPTT service. Data in tables A.5-1and A.5-3 can be configured offline using the CSC-11 reference point.

Table A.5-1: MCPTT service configuration data (on and off network)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reference | Parameter description | MCPTT UE | MCPTT Server | Configuration management server |
| [R-5.2.2-001] of 3GPP TS 22.280 [17] | Levels of group hierarchy for group-broadcast groups (Bc1) | Y | Y | Y |
| [R-5.2.3-001] of 3GPP TS 22.280 [17] | Levels of user hierarchy for user-broadcast groups (Bc2) | Y | Y | Y |
| [R-5.8-002] of 3GPP TS 22.280 [17] | Minimum length (Nc3) of an alphanumeric identifier (i.e. alias) assigned by an MCPTT administrator. | Y | N | Y |

Table A.5-2: MCPTT service configuration data (on‑network)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reference | Parameter description | MCPTT UE | MCPTT Server | Configuration management server |
| [R-5.7.2.3.2-002] of 3GPP TS 22.179 [2] | Timeout value for the cancellation of an in‑progress emergency for an on‑network private call | N | Y | Y |
| [R-5.7.2.1.2-002] of 3GPP TS 22.280 [17] | Time limit for an in-progress emergency related to an on‑network MCPTT group | N | Y | Y |
| [R-5.6.5-004] of 3GPP TS 22.179 [2] | Max on‑network private call (with floor control) duration | N | Y | Y |
| [R-6.2.4-003] of 3GPP TS 22.179 [2] | Hang timer for private calls | N | Y | Y |
| [R-6.7.2-008] of 3GPP TS 22.280 [17] | Max duration of private call (without floor control) | N | Y | Y |
| [R-6.2.3.3.1-001] of 3GPP TS 22.179 [2] | Hierarchy of participant rights to override | N | Y | Y |
| [R-6.2.3.5-002] of 3GPP TS 22.179 [2] | Transmit time limit from a single request to transmit in a group or private call transmission | N | Y | Y |
| [R-6.2.3.5-003], [R-6.2.3.5-004] of 3GPP TS 22.179 [2] | Configuration of warning time before time limit of transmission is reached (on-network) | N | Y | Y |
| [R-6.2.4-005] of 3GPP TS 22.179 [2] | Configuration of warning time before call hang time (on-network) | N | Y | Y |
| [R-6.2.3.2-006] of 3GPP TS 22.179 [2] | Depth of floor control queue | N | Y | Y |
| [R-6.2.3.2-012] of 3GPP TS 22.179 [2] | Max time for a user's floor control request to be queued | N | Y | Y |
| [R-5.13-001] of 3GPP TS 22.280 [17] | Protect confidentiality of signalling (see NOTE 1) | Y | Y | Y |
| [R-5.13-001] of 3GPP TS 22.280 [17] | Protect integrity of signalling (see NOTE 1) | Y | Y | Y |
| [R-5.13-001] of 3GPP TS 22.280 [17] | Use signalling protection between MCPTT servers (see NOTE 1) | N | Y | Y |
| [R-5.13-001] of 3GPP TS 22.280 [17] | Use floor control protection between MCPTT servers (see NOTE 1) | N | Y | Y |
|  | List of functional alias identities |  |  |  |
| [R-5.9a-005] of 3GPP TS 22.280 [17] | > Functional alias | N | Y | Y |
| [R-5.9a-016] of 3GPP TS 22.280 [17] | > Communication priority (see NOTE 2) | N | Y | Y |
| [R-5.9a-005] of 3GPP TS 22.280 [17] | > Limit number of simultaneous activations | N | Y | Y |
| [R-5.9a-005] of 3GPP TS 22.280 [17] | > This functional alias can be taken over | N | Y | Y |
|  | > List of users |  |  |  |
| [R-5.9a-005] of 3GPP TS 22.280 [17] | >> MCPTT ID | N | Y | Y |
| [R-5.6.3-015], [R-6.7.4-016] of 3GPP TS 22.179 [2] | Max number immediate forwardings | N | Y | Y |
| [R-5.10-001a] of 3GPP TS 22.280 [17] | Maximum number of successful simultaneous service authorizations of clients from a user | N | Y | Y |
| Clauses 10.5, 10.6, 10.7 | Provide access resource information during call setup/session establishment procedures (see NOTE 3) | Y | Y | Y |
| NOTE 1: Security mechanisms are specified in 3GPP TS 33.180 [19].  NOTE 2: The usage of this parameter by the MCPTT server is up to implementation.  NOTE 3: This parameter is used to indicate to the MCPTT UE that the MCPTT server requests network resources via the MCPTT-5 reference point and therefore, access resource information is required. | | | | |

Table A.5-3: MCPTT service configuration data (off‑network)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reference | Parameter description | MCPTT UE | MCPTT Server | Configuration management server |
| [R-5.7.2.3.2-002] of 3GPP TS 22.179 [2] | Timeout value for the cancellation of an in‑progress emergency for an off‑network private call | Y | N | Y |
| [R-5.7.2.1.2-002] of 3GPP TS 22.280 [17] | Time limit for an in-progress emergency related to an off‑network MCPTT group | Y | N | Y |
| [R-5.6.5-004] of 3GPP TS 22.179 [2] | Max off‑network private call (with floor control) duration | Y | N | Y |
| [R-7.4-002] of 3GPP TS 22.179 [2]  [R-7.4-003] of 3GPP TS 22.280 [17] | Hang timer for private calls in off-network | Y | N | Y |
| [R-7.3.3-001],  [R-7.3.3-002],  [R-7.3.3-003] of 3GPP TS 22.179 [2] | Priority hierarchy for floor control override in off-network | Y | N | Y |
| [R-7.3.5-001],  [R-7.3.5-002],  [R-7.3.5-003] of 3GPP TS 22.179 [2] | Transmit time limit from a single request to transmit in a group or private call. | Y | N | Y |
| [R-7.3.5-001],  [R-7.3.5-004] of 3GPP TS 22.179 [2] | Configuration of warning time before time limit of transmission is reached (off-network) | Y | N | Y |
| [R-7.4-004] of 3GPP TS 22.280 [17] | Configuration of warning time before hang time is reached (off-network) | Y | N | Y |
| [R-7.7-001],  [R-7.7-003] of 3GPP TS 22.280 [17]  [R-7.7-002] of 3GPP TS 22.179 [2] | Default ProSe Per-Packet priority (as specified in 3GPP TS 23.303 [7]) values |  |  |  |
|  | > MCPTT private call signalling | Y | N | Y |
|  | > MCPTT private call media | Y | N | Y |
|  | > MCPTT Emergency private call signalling | Y | N | Y |
|  | > MCPTT Emergency private call media | Y | N | Y |
| [R-7.15-001],  [R-7.7-003] of 3GPP TS 22.280 [17] | Configuration of metadata to log | Y | N | Y |