**3GPP TSG- Meeting # *2848***

**, , - was C1-242059**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **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:*** | Corrections for adhoc emergency alert | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Resolving EN in clause 12.1A.2.1, 12.1A.2.2, 12.1A.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Resolving EN in clause  12.1A.1.2:  - Added handing of cancel-in-progress-emergency-state and removing respective EN  - correcting typos  12.1A.1.4:  - Removing clause as it is not necessary  12.1A.2.1:  - Adding text to cover how to determine the PSI of the controlling function  12.1A.3.4:  - sending modified criteria to originator of the request  F.1.2:  - adding cancel-in-progress-emergency-state element  F.1.3:  - adding cancel-in-progress-emergency-state element | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incomplete specification how the PSI of the controlling function is determined remains. Open Editor’s notes remain. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 12.1A.1.2, 12.1A.1.4, 12.1A.2.1, 12.1A.3.4, F.1.2, F.1.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

#### 12.1A.1.2 Emergency alert cancellation

Upon receiving a request from the MCPTT user to send an MCPTT adhoc group emergency alert cancellation, the MCPTT client shall determine if this is an authorised request for an MCPTT adhoc group emergency alert cancellation as specified in the clause 6.2.8.1.19.

If this is an unauthorised request for an MCPTT emergency alert cancellation, the MCPTT client:

1) should indicate to the MCPTT user that adhoc group emergency alert cancellations are not allowed; and

2) shall skip the remainder of this procedure.

If this is an authorised request, MCPTT client shall generate a SIP MESSAGE request in accordance with 3GPP TS 24.229 [4] and IETF RFC 3428 [33] with the clarifications given below.

NOTE 1: This SIP MESSAGE request is assumed to be sent out-of-dialog.

The MCPTT client:

1) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Preferred-Service header field according to IETF RFC 6050 [9] in the SIP MESSAGE request;

2) shall include an Accept-Contact header field with the g.3gpp.icsi-ref media feature tag containing the value of "urn:urn-7:3gpp-service.ims.icsi.mcptt" along with the "require" and "explicit" header field parameters according to IETF RFC 3841 [6];

3) may include a P-Preferred-Identity header field in the SIP MESSAGE request containing the public user identity of the originator as specified in 3GPP TS 24.229 [4];

4) shall include an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with:

a) the <mcptt-request-uri> element set to the MCPTT adhoc group identity;

b) the <adhoc-alert-ind> element set to a value of "false";

c) the <mcptt-client-id> element set to the MCPTT client ID of the originating MCPTT client;

d) if the MCPTT client needs to include an active functional alias in the SIP MESSAGE request, the <anyExt> element with the <functional-alias-URI> element set to the URI of the used functional alias;

NOTE 1A: The MCPTT client learns the functional aliases that are activated for an MCPTT ID from procedures specified in clause 9A.2.1.3.

e) if the MCPTT user is cancelling an MCPTT emergency alert originated by another MCPTT user, include the <originated-by> element set to the MCPTT ID of the MCPTT user who originated the MCPTT emergency alert; and

f) if the MCPTT client needs to cancel the in-progress emergency state of the group, the <anyExt> element with the <cancel-in-progress-emergency-state> element set to a value of "true".

a) set the MCPTT emergency alert state to "AH-MEA 1: no-adhoc-alert"; and

b) clear the MCPTT emergency state if not already cleared;

5) if the MCPTT user has additionally requested the cancellation of the in-progress emergency state of the MCPTT group and this is an authorised request for an in-progress emergency group state cancellation as determined by clause 6.2.8.1.7, shall include an <adhoc-emergency-ind> element set to a value of "false" in the <mcpttinfo> element containing the <mcptt-Params> element;

6) shall set the Request-URI to the public service identity identifying the participating MCPTT function serving the MCPTT user;

7) if the generated SIP MESSAGE request does not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, shall set the MCPTT emergency alert state to "AH-MEA 4: adhoc-emergency-alert-cancel-pending"; and

8) shall send the SIP MESSAGE request according to rules and procedures of 3GPP TS 24.229 [4].

On receipt of a SIP MESSAGE request containing an application/vnd.3gpp.mcptt-info+xml MIME body with an <adhoc-alert-ind-rcvd> element set to true and an <mcptt-client-id> matching the MCPTT client ID included in the sent SIP MESSAGE request:

1) if the <adhoc-alert-ind> element is set to a value of "false" in the application/vnd.3gpp.mcptt-info+xml MIME body of the received SIP MESSAGE request and if the MCPTT emergency alert state is set to "MEA 4: Emergency-alert-cancel-pending" and the sent SIP MESSAGE request did not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, shall:

a) set the MCPTT emergency alert state to "AH-MEA 1: no-adhoc-alert"; and

b) clear the MCPTT emergency state if not already cleared;

2) if the <adhoc-alert-ind> element in the application/vnd.3gpp.mcptt-info+xml MIME body of the received SIP MESSAGE request is set to a value of "true" and if the MCPTT emergency alert state is set to "AH-MEA 4: adhoc-emergency-alert-cancel-pending" and the sent SIP MESSAGE request did not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body, shall set the MCPTT emergency alert state to "AH-MEA 3: adhoc-emergency-alert-initiated"; and

NOTE 2: It would appear to be an unusual situation for the initiator of an MCPTT emergency alert to not be able to clear their own alert. Nevertheless, an MCPTT user can be configured to be authorised to initiate MCPTT emergency alerts but not have the authority to clear them. Hence, the case is covered here.

On receiving a SIP 4xx response, SIP 5xx response or SIP 6xx response to the sent SIP MESSAGE request:

1) if the received SIP 4xx response, SIP 5xx response or SIP 6xx response contains an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 with the <mcpttinfo> element containing the <mcptt-Params> element with the <adhoc-alert-ind> element set to a value of "true", the sent SIP MESSAGE request did not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body and the MCPTT emergency alert state is set to "AH-MEA 4: adhoc-emergency-alert-cancel-pending", shall set the MCPTT emergency alert state to "AH-MEA 3: adhoc-emergency-alert-initiated"; and

NOTE 4: In this case, an <adhoc-emergency-ind> element would either not be present or would be set to true. In either case, no change in state would result. Hence, this case is not specified above.

2) if the received SIP 4xx response, SIP 5xx response or a SIP 6xx response to the SIP MESSAGE request does not contain an application/vnd.3gpp.mcptt-info+xml MIME body with an <adhoc-alert-ind> element, the sent SIP MESSAGE request does not contain an <originated-by> element in the application/vnd.3gpp.mcptt-info+xml MIME body and the MCPTT emergency alert state is set to "AH-MEA 4: adhoc-emergency-alert-cancel-pending", shall set the MCPTT emergency alert state to "AH-MEA 3: adhoc-emergency-alert-initiated".

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

#### 12.1A.1.4 Void

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

#### 12.1A.2.1 Receipt of a SIP MESSAGE request for emergency notification from the served MCPTT client

Upon receipt of a "SIP MESSAGE request for adhoc emergency notification for originating participating MCPTT function", the participating MCPTT function:

1) if unable to process the request due to a lack of resources or a risk of congestion exists, may reject the SIP MESSAGE request with a SIP 500 (Server Internal Error) response. The participating MCPTT function may include a Retry-After header field to the SIP 500 (Server Internal Error) response as specified in IETF RFC 3261 [24] and skip the rest of the steps;

NOTE 1: if the SIP MESSAGE request contains an emergency indication set to a value of "true" or an alert indication set to a value of "true", the participating MCPTT function can, according to local policy, choose to accept the request.

2) shall determine the MCPTT ID of the calling user from the public user identity in the P-Asserted-Identity header field of the SIP MESSAGE request;

NOTE 2: The MCPTT ID of the calling user is bound to the public user identity at the time of service authorisation, as documented in clause 7.3.

3) if the participating MCPTT function cannot find a binding between the public user identity and an MCPTT ID or if the validity period of an existing binding has expired, then the participating MCPTT function shall reject the SIP MESSAGE request with a SIP 404 (Not Found) response with the warning text set to "141 user unknown to the participating function" in a Warning header field as specified in clause 4.4, and shall not continue with any of the remaining steps;

NOTE 3: As this is a request for MCPTT emergency services, the participating MCPTT function can choose to accept the request.

4) shall determine the public service identity of the controlling MCPTT function associated with the originating user's identity i.e. MCPTT ID;

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

6) shall set the Request-URI of the outgoing SIP MESSAGE request to the public service identity of the controlling MCPTT function determined in step 4) above;

7) shall copy the contents of the application/vnd.3gpp. mcptt-info+xml MIME body in the received SIP MESSAGE request into an application/vnd.3gpp.mcptt-info+xml MIME body as specified in clause F.1 included in the outgoing SIP MESSAGE request;

8) if the received SIP MESSAGE request contains a <functional-alias-URI> element of the application/vnd.3gpp.mcptt-info+xml MIME body, shall check the status of the functional alias for the MCPTT ID. If the functional alias status is activated, then the participating MCPTT function shall set the <functional-alias-URI> element of the application/vnd.3gpp.mcptt-info+xml MIME body in the outgoing SIP MESSAGE request to the received value, otherwise it shall not include a <functional-alias-URI> element;

9) shall set the <mcptt-calling-user-id> contained in <mcptt-Params> element of the application/vnd.3gpp.mcptt-info+xml MIME body to the MCPTT ID determined in step 2) above;

10) if the received SIP MESSAGE request contains an application/vnd.3gpp.mcptt-location-info+xml MIME body as specified in clause F.3 shall copy the contents of the application/vnd.3gpp.mcptt-location-info+xml MIME body in the received SIP MESSAGE request into an application/vnd.3gpp.mcptt-location-info+xml MIME body included in the outgoing SIP MESSAGE request;

11) shall include a P-Asserted-Identity header field in the outgoing SIP MESSAGE request set to the public service identity of the participating MCPTT function; and

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

Upon receipt of a SIP 2xx response in response to the SIP MESSAGE request sent in step 10):

1) shall generate a SIP 200 (OK) response as specified in 3GPP TS 24.229 [4] with the follow clarifications:

a) shall include a P-Asserted-Identity header field in the outgoing SIP 200 (OK) response set to the public service identity of the participating MCPTT function;

2) shall send the SIP 200 (OK) response to the MCPTT client according to 3GPP TS 24.229 [4].

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

#### 12.1A.3.4 Adhoc group emergency alert participants determination procedures

The controlling MCPTT function shall create a list of terminating participating MCPTT functions from which users are to be determined to be included in an adhoc group emergency alert. For each terminating participating MCPTT function in the list, the controlling MCPTT function:

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

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

NOTE 1: The public service identity can identify the terminating participating MCPTT function in the primary MCPTT system or in a partner MCPTT system.

NOTE 2: If the terminating participating MCPTT function is in a partner MCPTT system in a different trust domain, then the public service identity can identify the MCPTT gateway server that acts as an entry point in the partner MCPTT system from the primary MCPTT system.

NOTE 3: If the terminating participating MCPTT function is in a partner MCPTT system in a different trust domain, then the primary MCPTT system can route the SIP request through an MCPTT gateway server that acts as an exit point from the primary MCPTT system to the partner MCPTT system.

NOTE 4: How the controlling MCPTT function determines the public service identity of the targeted terminating participating MCPTT function or of the MCPTT gateway server in the partner MCPTT system is out of the scope of the present document.

NOTE 5: How the primary MCPTT system routes the SIP request through an exit MCPTT gateway server is out of the scope of the present document.

3) shall include a P-Asserted-Identity header field set to the public service identity of controlling MCPTT function;

4) shall include the ICSI value "urn:urn-7:3gpp-service.ims.icsi.mcptt" (coded as specified in 3GPP TS 24.229 [4]), in a P-Asserted-Service-Id header field according to IETF RFC 6050 [9];

5) shall include an application/vnd.3gpp.mcptt-info+xml MIME body with the <mcpttinfo> element containing the <mcptt-Params> element with:

a) the <mcptt-request-uri> element set to the adhoc group identity;

b) shall copy or modify based on local policy the criteria for determining the list of MCPTT users to be called that exists in the incoming SIP request included in the <call-participants-criterias> element of the <anyExt> element of <mcptt-Params> element of <mcpttinfo> element of the application/vnd.3gpp.mcptt-info+xml MIME body, into the application/vnd.3gpp.mcptt-info+xml MIME body of the outgoing SIP MESSAGE request; and

c) an <anyExt> element containing:

i) the <request-type> element set to a value of "get-userlist-adhoc-group-call-request"; and

6) shall send the SIP MESSAGE request according to rules and procedures of 3GPP TS 24.229 [4].

On receiving a SIP 4xx response a SIP 5xx response or a SIP 6xx response to the SIP MESSAGE request, the controlling MCPTT function shall consider the user served by the terminating participating MCPTT function are not available and remove from the created list of terminating participating MCPTT functions.

NOTE 6: Based on implementation the controlling MCPTT function can reattempt again before removing from the created list of of terminating participating MCPTT functions.

Upon receipt of SIP 2xx responses to the outgoing SIP MESSAGE requests, the controlling MCPTT function shall follow the procedures specified in 3GPP TS 24.229 [4].

On receipt of a "SIP MESSAGE request to get userlist for adhoc group call response for controlling MCPTT function" containing an application/vnd.3gpp.mcptt-info+xml MIME body with the <mcpttinfo> element containing the <mcptt-Params> element containing the <anyExt> element with the <response-type> element set to a value of "get-userlist-adhoc-group-call-response" and an <mcptt-request-uri> matching the adhoc group identity included in the sent SIP MESSAGE request:

1) if the application/resource-lists+xml MIME body with the MCPTT ID of the MCPTT users meeting the specified criteria exists in the incoming SIP MESSAGE request, shall consider each entry of the MCPTT users to meet the specified criteria;

a) for each user determined to meet the criteria the controlling MCPTT function shall:

i) generate an outgoing SIP MESSAGE request for notification of the MCPTT user's emergency alert indication as specified in clause 6.3.3.1.11 with the clarifications of clause 6.3.3.1.23;

ii) include in the application/vnd.3gpp.mcptt-info+xml MIME body with the <mcpttinfo> element containing the <mcptt-Params> element with;

A) the <mcptt-calling-user-id> element set to the value of the <mcptt-calling-user-id> element in the received SIP MESSAGE request; and

B) the <mcptt-calling-group-id> element set to the adhoc group identity as determined in this clause;

iii) send the SIP MESSAGE request according to according to rules and procedures of 3GPP TS 24.229 [4];

b) shall generate a SIP 200 (OK) response to the received SIP MESSAGE request as specified in 3GPP TS 24.229 [4] with the following clarifications:

A) shall cache the information that the MCPTT user has initiated an MCPTT emergency alert;

B) if the criteria got modified in step 5)/B), shall include in the <anyExt> element of the <mcptt-Params> element of the <mcpttinfo> element contained in the application/vnd.3gpp.mcptt-info+xml MIME body a <call-participants-criterias> element set to the value of the modified criteria;

c) shall send the SIP 200 (OK) response to the received SIP MESSAGE according to rules and procedures of 3GPP TS 24.229 [4].

d) shall generate a SIP MESSAGE request as described in clause 6.3.3.1.20 to indicate successful receipt of an emergency alert, and shall include in the application/vnd.3gpp.mcptt-info+xml MIME body:

i) the <adhoc-alert-ind> element set to a value of "true";

ii) the <adhoc-alert-ind-rcvd> element set to a value of true; and

iii) the <mcptt-client-id> element with the MCPTT client ID that was included in the incoming SIP MESSAGE request; and

e) shall send the SIP MESSAGE request according to according to rules and procedures of 3GPP TS 24.229 [4]; and

4) shall cache the information of the adhoc group identity and the list of MCPTT users that meet the criteria for the duration of the MCPTT adhoc group emergency alert.

Upon receipt of SIP 2xx responses to the outgoing SIP MESSAGE requests for notification of the MCPTT user's emergency alert indication, the controlling MCPTT function shall:

1) cache the information of the adhoc group identity and a separate list of MCPTT users that meet the criteria but did not respond with a SIP 2xx response to the above SIP MESSAGE request, for the duration of the MCPTT adhoc group emergency alert;

2) determine the users that are authorized to receive MCPTT adhoc group emergency participant information as described in clause 6.3.3.1.13.10;

3 for each new user determined to be authorized to receive MCPTT adhoc group emergency participant information:

a) shall generate a SIP MESSAGE request as described in clause 6.3.3.1.24; and

b) shall send the SIP MESSAGE request according to to rules and procedures of 3GPP TS 24.229 [4].

4) follow the procedures specified in 3GPP TS 24.229 [4].

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

## F.1.2 XML schema

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema

xmlns:xs="http://www.w3.org/2001/XMLSchema"

targetNamespace="urn:3gpp:ns:mcpttInfo:1.0"

xmlns:mcpttinfo="urn:3gpp:ns:mcpttInfo:1.0"

elementFormDefault="qualified"

attributeFormDefault="unqualified"

xmlns:xenc="[http://www.w3.org/2001/04/xmlenc#](http://www.w3.org/2001/04/xmlenc)"

xmlns:mgktp="urn:3gpp:ns:mcpttGKTP:1.0">

<xs:import namespace="http://www.w3.org/2001/04/xmlenc#"/>

<xs:import namespace="urn:3gpp:ns:mcpttGKTP:1.0"/>

<!-- root XML element -->

<xs:element name="mcpttinfo" type="mcpttinfo:mcpttinfo-Type" id="info"/>

<xs:complexType name="mcpttinfo-Type">

<xs:sequence>

<xs:element name="mcptt-Params" type="mcpttinfo:mcptt-ParamsType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

<xs:element name="anyExt" type="mcpttinfo:anyExtType" minOccurs="0"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:complexType name="mcptt-ParamsType">

<xs:sequence>

<xs:element name="mcptt-access-token" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="session-type" type="xs:string" minOccurs="0"/>

<xs:element name="mcptt-request-uri" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="mcptt-calling-user-id" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="mcptt-called-party-id" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="mcptt-calling-group-id" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="required" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="emergency-ind" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="alert-ind" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="imminentperil-ind" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="broadcast-ind" type="xs:boolean" minOccurs="0"/>

<xs:element name="mc-org" type="xs:string" minOccurs="0"/>

<xs:element name="floor-state" type="xs:string" minOccurs="0"/>

<xs:element name="associated-group-id" type="xs:string" minOccurs="0"/>

<xs:element name="originated-by" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="MKFC-GKTPs" type="mgktp:singleTypeGKTPsType" minOccurs="0"/>

<xs:element name="mcptt-client-id" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="alert-ind-rcvd" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="partner-mcptt-id" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="migration-auth-result" type="mcpttinfo:contentType" minOccurs="0"/>

<xs:element name="gw-mcptt-usage" type="xs:boolean" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

<xs:element name="anyExt" type="mcpttinfo:anyExtType" minOccurs="0"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:simpleType name="protectionType">

<xs:restriction base="xs:string">

<xs:enumeration value="Normal"/>

<xs:enumeration value="Encrypted"/>

</xs:restriction>

</xs:simpleType>

<xs:complexType name="contentType">

<xs:choice>

<xs:element name="mcpttURI" type="xs:anyURI"/>

<xs:element name="mcpttString" type="xs:string"/>

<xs:element name="mcpttBoolean" type="xs:boolean"/>

<xs:element name="mcpttUnsignedByte" type="xs:unsignedByte"/>

<xs:any namespace="##other" processContents="lax"/>

<xs:element name="anyExt" type="mcpttinfo:anyExtType" minOccurs="0"/>

</xs:choice>

<xs:attribute name="type" type="mcpttinfo:protectionType"/>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:complexType name="anyExtType">

<xs:sequence>

<xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

</xs:complexType>

<!-- anyEXT elements – begin -->

<xs:element name="ambient-listening-type" type="mcpttinfo:ambientListeningType"/>

<xs:simpleType name="ambientListeningType">

<xs:restriction base="xs:string">

<xs:enumeration value="remote-init"/>

<xs:enumeration value="local-init"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="release-reason" type="mcpttinfo:releaseReasonType"/>

<xs:simpleType name="releaseReasonType">

<xs:restriction base="xs:string">

<xs:enumeration value="private-call-expiry"/>

<xs:enumeration value="administrator-action"/>

<xs:enumeration value="not selected for call"/>

<xs:enumeration value="call-request-for-listened-to-client"/>

<xs:enumeration value="call-request-initiated-by-listened-to-client"/>

<xs:enumeration value="authentication of the MIKEY-SAKE I\_MESSAGE failed"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="request-type" type="mcpttinfo:requestTypeType"/>

<xs:simpleType name="requestTypeType">

<xs:restriction base="xs:string">

<xs:enumeration value="private-call-call-back-request"/>

<xs:enumeration value="private-call-call-back-cancel-request"/>

<xs:enumeration value="group-selection-change-request"/>

<xs:enumeration value="remotely-initiated-group-call-request"/>

<xs:enumeration value="remotely-initiated-private-call-request"/>

<xs:enumeration value="transfer-private-call-request"/>

<xs:enumeration value="functional-alias-status-determination"/>

<xs:enumeration value="forward-private-call-request"/>

<xs:enumeration value="forward-private-call-settings-request"/>

<xs:enumeration value="forward-private-call-settings-response"/>

<xs:enumeration value="fa-group-binding-req"/>

</xs:restriction>

</xs:simpleType>

<!-- The request-type and response-type elements uses the enumeration as values, which cant be extended for new values to be added. Hence the new req-type and resp-type elements are defined and going forward all the new values are added to these element -->

<xs:element name="req-type" type="mcpttinfo:contentType"/>

<xs:element name="resp-type" type="mcpttinfo:contentType"/>

<xs:element name="response-type" type="mcpttinfo:responseTypeType"/>

<xs:simpleType name="responseTypeType">

<xs:restriction base="xs:string">

<xs:enumeration value="private-call-call-back-response"/>

<xs:enumeration value="private-call-call-back-cancel-response"/>

<xs:enumeration value="group-selection-change-response"/>

<xs:enumeration value="remotely-initiated-group-call-response"/>

<xs:enumeration value="remotely-initiated-private-call-response"/>

<xs:enumeration value="transfer-private-call-response"/>

<xs:enumeration value="forward-private-call-response"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="urgency-ind">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:enumeration value="low"/>

<xs:enumeration value="normal"/>

<xs:enumeration value="high"/>

</xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="time-of-request" type="xs:dateTime"/>

<xs:element name="selected-group-change-outcome" type="mcpttinfo:selectedGroupChangeOutcomeType"/>

<xs:simpleType name="selectedGroupChangeOutcomeType">

<xs:restriction base="xs:string">

<xs:enumeration value="success"/>

<xs:enumeration value="fail"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="affiliation-required" type="xs:boolean"/>

<xs:element name="remotely-initiated-call-outcome" type="mcpttinfo:remotelyInitiatedCallOutcomeType"/>

<xs:simpleType name="remotelyInitiatedCallOutcomeType">

<xs:restriction base="xs:string">

<xs:enumeration value="success"/>

<xs:enumeration value="fail"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="notify-remote-user" type="xs:boolean"/>

<xs:element name="functional-alias-URI" type="mcpttinfo:contentType"/>

<xs:element name="user-requested-priority" type="xs:nonNegativeInteger"/>

<xs:element name="emergency-alert-area-ind" type="xs:boolean"/>

<xs:element name="group-geo-area-ind" type="xs:boolean"/>

<xs:element name="non-acknowledged-user" type="mcpttinfo:contentType"/>

<xs:element name="call-to-functional-alias-ind" type="xs:boolean"/>

<xs:element name="emergency-ind-rcvd" type="mcpttinfo:contentType"/>

<xs:element name="call-transfer-ind" type="xs:boolean"/>

<xs:element name="multiple-devices-ind" type="mcpttinfo:contentType"/>

<xs:element name="transfer-call-outcome" type="mcpttinfo:transferCallOutcomeType"/>

<xs:simpleType name="transferCallOutcomeType">

<xs:restriction base="xs:string">

<xs:enumeration value="success"/>

<xs:enumeration value="fail"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="called-functional-alias-URI" type="mcpttinfo:contentType"/>

<xs:element name="call-forwarding-ind" type="xs:boolean"/>

<xs:element name="forwarding-call-outcome" type="mcpttinfo:forwardingCallOutcomeType"/>

<xs:simpleType name="forwardingCallOutcomeType">

<xs:restriction base="xs:string">

<xs:enumeration value="success"/>

<xs:enumeration value="fail"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="forwarding-immediate-list" type="mcpttinfo:mcpttIdListType"/>

<xs:complexType name="mcpttIdListType">

<xs:choice minOccurs="0" maxOccurs="unbounded">

<xs:element name="entry" type="mcpttinfo:EntryType"/>

<xs:element name="anyExt" type="mcpttinfo:anyExtType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:choice>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:element name="forwarding-other-list" type="mcpttinfo:mcpttIdListType"/>

<xs:complexType name="EntryType">

<xs:sequence>

<xs:element name="uri-entry" type="xs:anyURI"/>

<xs:element name="display-name" type="xs:string" minOccurs="0"/>

<xs:element name="anyExt" type="mcpttinfo:anyExtType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:element name="forwarding-reason" type="mcpttinfo:forwardingReasonType"/>

<xs:simpleType name="forwardingReasonType">

<xs:restriction base="xs:string">

<xs:enumeration value="immediate"/>

<xs:enumeration value="no-answer"/>

<xs:enumeration value="manual-input"/>

<xs:enumeration value="migrated"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="PrivateCallKMSURI" type="mcpttinfo:PrivateCallKMSURIEntryType"/>

<xs:complexType name="PrivateCallKMSURIEntryType">

<xs:sequence>

<xs:element name="PrivateCallKMSURI" type="mcpttinfo:EntryType"/>

<xs:element name="anyExt" type="mcpttinfo:anyExtType" minOccurs="0"/>

<xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

<xs:anyAttribute namespace="##any" processContents="lax"/>

</xs:complexType>

<xs:element name="binding-ind" type="xs:boolean"/>

<xs:element name="binding-fa-uri" type="xs:anyURI"/>

<xs:element name="unbinding-fa-uri" type="xs:anyURI"/>

<xs:element name="replaces-header-value" type="xs:string"/>

<xs:element name="transfer-announced-ind" type="xs:boolean"/>

<xs:element name="forwarding-sequence-number" type="xs:nonNegativeInteger"/>

<xs:element name="forwarded-by-mcptt-id" type="xs:anyURI"/>

<xs:element name="forwarded-by-functional-alias" type="xs:anyURI"/>

<xs:element name="forwarding-target-id" type="xs:anyURI"/>

<xs:element name="forwarding-target-is-functional-alias" type="xs:boolean"/>

<!-- These elements can be added under the anyExt element of the mcpttinfo element -->

<xs:element name="ric-app-level-priority" type="xs:string"/>

<xs:element name="ric-commencement-mode" type="xs:string"/>

<xs:element name="remotely-initiated-call-request-ind" type="mcpttinfo:contentType"/>

<xs:element name="forwarding-target-orig-id" type="xs:anyURI"/>

<xs:element name="end-to-end-security" type="xs:boolean"/>

<xs:element name="call-participants-criterias" type="xs:string"/>

<xs:element name="preconfigured-group-id" type="xs:anyURI"/>

<xs:element name="adhoc-grp-emg-alert-grp-ind" type="xs:boolean"/>

<xs:element name="selected-user-profile-index" type="mcpttinfo:contentType"/>

<xs:element name="primary-mcptt-id" type="mcpttinfo:contentType"/>

<xs:element name="adhoc-emergency-ind" type="xs:boolean"/>

<xs:element name="adhoc-alert-ind" type="xs:boolean"/>

<xs:element name="adhoc-additional-information" type="xs:string"/>

<xs:element name="adhoc-emergency-ind-rcvd" type="xs:boolean"/>

<xs:element name="adhoc-alert-ind-rcvd" type="xs:boolean"/>

<xs:element name="adhoc-alert-participant-list" type="mcpttinfo:mcpttIdListType"/>

<xs:element name="adhoc-alert-participant-not-ack-list" type="mcpttinfo:mcpttIdListType"/>

<xs:element name="cancel-in-progress-emergency-state" type="xs:boolean"/>

<!-- anyEXT elements – end -->

</xs:schema>

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

## F.1.3 Semantic

The <mcpttinfo> element is the root element of the XML document. The <mcpttinfo> element can contain subelements.

NOTE 1: The subelements of the <mcpttinfo> are validated by the <xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/> particle of the <mcpttinfo> element

If the <mcpttinfo> contains the <mcptt-Params> element then:

1) the <mcptt-access-token>, <mcptt-request-uri>, <mcptt-calling-user-id>, <mcptt-called-party-id>, <mcptt-calling-group-id>, <emergency-ind>, <alert-ind>, <imminentperil-ind>, <originated-by>, <mcptt-client-id>, <functional-alias-URI>, <called-functional-alias-URI>, <non-acknowledged-user>, <multiple-devices-ind>, <associated-group-id>, <group-geo-area-ind>, <migration-auth-result> , <partner-mcptt-id>, <primary-mcptt-id>, <selected-user-profile-index>, <req-type> and <resp-type> elements can be included with encrypted content;

2) for each element in 1) that is included with content that is not encrypted:

a) the element has the "type" attribute set to "Normal";

b) if the element is one of the following elements: <mcptt-request-uri>, <mcptt-calling-user-id>, <mcptt-called-party-id>, <mcptt-calling-group-id>, <originated-by>, <functional-alias-URI>, <called-functional-alias-URI>, <non-acknowledged-user>, <associated-group-id>, <partner-mcptt-id>, , or <primary-mcptt-id>, then the <mcpttURI> element is included;

c) if the element is one of the following elements:<mcptt-access-token>, <mcptt-client-id>, <req-type>, or <resp-type> then the <mcpttString> element is included;

d) if the element is one of the following elements: <emergency-ind>, <alert-ind>, <alert-ind-rcvd>, <imminentperil-ind>, <emergency-ind-rcvd>, <multiple-devices-ind>, or <remotely-initiated-call-request-ind>, or <migration-auth-result>, then the <mcpttBoolean> element is included; and

e) if the element is <selected-user-profile-index>, then the <mcpttUnsignedByte> element is included; and

3) for each element in 1) that is included with content that is encrypted:

a) the element has the "type" attribute set to "Encrypted";

b) the <xenc:EncryptedData> element from the "[http://www.w3.org/2001/04/xmlenc#](http://www.w3.org/2001/04/xmlenc)" namespace is included and:

i) can have a "Type" attribute can be included with a value of "<http://www.w3.org/2001/04/xmlenc#Content>";

ii) can include an <EncryptionMethod> element with the "Algorithm" attribute set to value of "http://www.w3.org/2009/xmlenc11#aes128-gcm";

iii) can include a <KeyInfo> element with a <KeyName> element containing the base 64 encoded XPK-ID; and

iv) includes a <CipherData> element with a <CipherValue> element containing the encrypted data.

NOTE 2: When the optional attributes and elements are not included within the <xenc:EncryptedData> element, the information they contain is known to sender and the receiver by other means.

If the <mcpttinfo> contains the <mcptt-Params> element then:

1) the <mcptt-access-token> can be included with the access token received during authentication procedure as described in 3GPP TS 24.482 [49];

2) the <session-type> can be included with:

a) a value of "chat" to indicate that the MCPTT client wants to join a chat group call

b) a value of "prearranged" to indicate the MCPTT client wants to make a prearranged group call;

c) a value of "private" to indicate the MCPTT client wants to make a private call;

d) a value of "first-to-answer" to indicate that the MCPTT client wants to make a first-to-answer call;

e) a value of "ambient-listening" to indicate the MCPTT client wants to make an ambient listening call; or

f) a value of "adhoc" to indicate the MCPTT client wants to make an adhoc group call;

3) the <mcptt-request-uri> can be included with:

a) a value set to an MCPTT group ID or temporary MCPTT group ID when the <session-type> is set to a value of "prearranged" or "chat";

b) a value set to the MCPTT ID of the called MCPTT user when the <session-type> is set to a value of "private"; and

c) a value set to the MCPTT ID of the called MCPTT user or MCPTT group ID of adhoc group when the <session-type> is set to a value of "adhoc";

4) the <mcptt-calling-user-id> can be included, set to MCPTT ID of the originating user;

5) the <mcptt-called-party-id> can be included, set to the MCPTT ID of the terminating user;

6) the <mcptt-calling-group-id> can be included to indicate the MCPTT group identity or MCPTT adhoc group identity to the terminating user;

7) the <required> can be included in a SIP 183 (Session Progress) from a non-controlling MCPTT function of an MCPTT group to inform the controlling MCPTT function that the group on the non-controlling MCPTT function has group members in the group document which are marked as <on-network-required>, as specified in 3GPP TS 24.481 [31];

8) the <emergency-ind> can be:

a) set to "true" to indicate that the call that the MCPTT client is initiating is an emergency MCPTT call; or

b) set to "false" to indicate that the MCPTT client is cancelling an emergency MCPTT call (i.e. converting it back to a non-emergency call)

9) the <alert-ind> can be:

a) set to "true" in an emergency call initiation to indicate that an alert to be sent; or

b) set to "false" when cancelling an emergency call which requires an alert to be cancelled also

10) if the <session-type> is set to "chat" or "prearranged":

a) the <imminentperil-ind> can be set to "true" to indicate that the call that the MCPTT client is initiating is an imminent peril group MCPTT call;

11) the <broadcast-ind> can be:

a) set to "true" to indicate that the MCPTT client is initiating a broadcast group call; or

b) set to "false" to indicate that the MCPTT client is initiating a non-broadcast group call;

12) the <mc-org> can be:

a) set to the MCPTT user's Mission Critical Organization in an emergency alert sent by the MCPTT server to terminating MCPTT clients;

13) the <floor-state> can be:

a) set to "floor-idle" if the floor is idle in a non-controlling MCPTT function; or

b) set to "floor-taken" if the floor state in a non-controlling MCPTT function is taken;

14) the <associated-group-id>:

a) if the <mcptt-request-uri> element contains a group identity then this element can include an MCPTT group ID associated with the group identity in the <mcptt-request-uri> element. E.g. if the <mcptt-request-uri> element contains a temporary group identity (TGI), then the <associated-group-id> element can contain the constituent MCPTT group ID;

15) the <originated-by>:

a) can be included, set to the MCPTT ID of the originating user of an MCPTT emergency alert when being cancelled by another authorised MCPTT user;

16) the <MKFC-GKTPs>:

a) contains a group key transport payload carrying one or more MKFC(s) and MKFC-ID(s) as described in3GPP TS 24.481 [31] clause 7.4, to be used for protection of multicast floor control signalling when the UE operates on the network;

17) the <mcptt-client-id>:

a) can be included, set to the MCPTT client ID of the MCPTT client that originated a SIP INVITE request, SIP REFER request, SIP REGISTER request, SIP PUBLISH request or SIP MESSAGE request;

18) the <alert-ind-rcvd>:

a) can be set to "true" and included in a SIP MESSAGE to indicate that the emergency alert or cancellation was received successfully;

18a) the <partner-mcptt-id> can be included and set to the MCPTT ID of a migrating user in the partner MCPTT system;

18b) the <migration-auth-result> can be:

a) set to "true" to indicate that the MCPTT client is authorized to migrate; or

b) set to "false" to indicate that the MCPTT client is not authorized to migrate; and

18a) the <gw-mcptt-usage>

a) can be set to true in a SIP REGISTER or a SIP PUBLISH to indicate to the MCPTT server that the MCPTT client uses a MCPTT gateway UE, which requires that network resources are allocated over Rx, N5 or N33; and

19) the <anyExt> can be included with the following elements:

a) an <ambient-listening-type> element set to:

i) "remote-init" when the listening MCPTT user of an ambient listening call initiates the call; or

ii) "local-init" when the listened-to MCPTT user of an ambient listening call initiates the call;

b) a <release-reason> element set to:

i) "private-call-expiry" when the ambient listening call is release due to the expiry of the private call timer;

ii) "administrator-action" when the ambient listening call is released by an MCPTT administrator;

iii) "not selected for call" when the when a dialog is released with an MCPTT client that was not selected as the terminating client of a first-to-answer call;

iv) "call-request-for-listened-to-client" when there is a call request targeted to the listened-to client;

v) "call-request-initiated-by-listened-to-client" when there is a call request initiated by the listened-to client; or

vi) "authentication of the MIKEY-SAKE I\_MESSAGE failed" by a MCPTT client when the signature cannot be verified;

c) a <request-type> element set to:

i) "private-call-call-back-request" when a client initiates a private call call-back request;

ii) "private-call-call-back-cancel-request" when a client initiates a private call call-back cancel request;

iii) "group-selection-change-request" when a client initiates a group selection change request;

iv) "remotely-initiated-group-call-request" when a client initiates a remotely initiated group call request;

v) "remotely-initiated-private-call-request" when a client initiates a remotely initiated private call request;

vi) "transfer-private-call-request" when a client initiates a transfer private call request;

vii) "functional-alias-status-determination" when a client initiates a subscription to FA status determination request;

viii) "forward-private-call-request" when a client initiates a forward private call request; or

ix) "fa-group-binding-req" when a client initiates a request for binding of a functional alias with the MCPTT group(s) for the MCPTT user;

d) a <response-type> element set to:

i) "private-call-call-back-response" when a client responds to a private call call-back request;

ii) "private-call-call-back-cancel-response" when a client responds to a private call call-back cancel request;

iii) "group-selection-change-response" when a client responds to a group selection change request;

iv) "remotely-initiated-group-call-response" when a client responds to a remotely initiated call request;

v) "remotely-initiated-private-call-response" when a client responds to a remotely initiated private call request;

vi) "transfer-private-call-response" when a client responds to a transfer private call request;

vii) "forward-private-call-response" when a client responds to a forward private call request; or

e) an <urgency-ind> element:

i) set to a value of "low", "normal" or "high" to indicate the urgency of a private call call-back request;

f) a <time-of-request> element :

i) set to the date and time at which the private call call-back request was initiated, in the form: "YYYY-MM-DDThh:mm:ss" where:

- YYYY indicates the year;

- MM indicates the month;

- DD indicates the day;

- T indicates the start of the required time section;

- hh indicates the hour;

- mm indicates the minute; and

- ss indicates the second;

g) a <selected-group-change-outcome> element set to:

i) "success" when a client reports that it has successfully changed its selected group as requested by a received group selection change request; or

ii) "fail" when a client reports that it has failed to change its selected group as requested by a received group selection change request;

h) an <affiliation-required> element set to:

i) "true" when received by a client in a group-selection-change-request to indicate that the client needs to affiliate to the specified group;

i) a <remotely-initiated-call-outcome> element set to:

i) "success" when a client reports that it has successfully initiated a call requested by a received remotely initiated call request; or

ii) "fail" when a client reports that it has failed to initiate a call triggered as requested by a received group selection change request;

j) a <notify-remote-user> element set to:

i) "true" when the remote user is to be notified of a remotely initiated call request; or

ii) "false" when the remote user is to be notified of a received remotely initiated call request;

k) a <functional-alias-URI> element set to the value of the functional alias that is used together with the "mcptt-calling-user-id";

l) an <emergency-alert-area-ind> element set to:

i) "true" when the MCPTT client has entered an emergency alert area; or

ii) "false" when the MCPTT client has exited an emergency alert area;

m) a <group-geo-area-ind> element set to:

i) "true" when the MCPTT client has entered a group geographic area; or

ii) "false" when the MCPTT client has exited a group geographic area;

n) one or more <non-acknowledged-user> elements set to the MCPTT IDs of invited members to a group call that have not sent a SIP 200 (OK) response;

o) a <call-to-functional-alias-ind> element set to:

i) "true" when the MCPTT client is using a functional alias to identify the MCPTT IDs of the potential target MCPTT users; or

ii) "false" when the MCPTT client is using MCPTT IDs to identify the potential target MCPTT users;

p) the <emergency-ind-rcvd> element set to:

i) "true" and included in a SIP MESSAGE to indicate that the in-progress emergency cancellation request was received successfully;

q) a <call-transfer-ind> element set to:

i) "true" when the MCPTT client is making a private call as a result of a call transfer; or

ii) "false" when the MCPTT client is making a normal private call;

r) a <transfer-call-outcome> element set to:

i) "success" when a client reports that it has successfully initiated a call requested by a received call transfer request; or

ii) "fail" when a client reports that it has failed to initiate a call triggered as requested by a received call transfer request;

s) a <called-functional-alias-URI> element set to the value of the functional alias to be called;

t) a <call-forwarding-ind> element set to:

i) "true" when the MCPTT client is making a private call as a result of a call forwarding; or

ii) "false" when the MCPTT client is making a normal private call;

u) a <forwarding-call-outcome> element set to:

i) "success" when a client reports that it has successfully initiated a call requested by a received call forwarding request; or

ii) "fail" when a client reports that it has failed to initiate a call triggered as requested by a received call forwarding request;

v) a <forwarding- immediate-list> element containing the details of the history of the immediate call forwardings that have occurred in the same MCPTT call;

w) a <forwarding-other-list> element containing the details of the history of the forwardings because of call forwarding on "no-answer" or "manual-input" forthe same MCPTT call;

x) a <forwarding-reason> element set to:

i) "immediate" for call forwarding immediate;

ii) "no-answer" for call forwarding no answer;

iii) "manual-input" for call forwarding based on manual user input; or

iv) "migrated" for call forwarding due to user migration;

y) a <multiple-devices-ind> element set to:

i) "true" to indicate to the client that multiple clients are registered for the MCPTT user; or

ii) "false" to indicate to the client that no other clients are registered for the MCPTT user;

z) a <binding-ind> element set to:

i) "true" when the user wants to create a binding of a particular functional alias with the specified list of MCPTT groups for the MCPTT client; or

ii) "false" when the user wants to remove a binding of a particular functional alias from the specified list of MCPTT groups for the MCPTT client;

aa) a <binding-fa-uri> element set to:

i) a URI of a functional alias that shall be bound with the specified list of MCPTT groups for the MCPTT client;

ab) a <unbinding-fa-uri> element set to:

i) a URI of a functional alias that shall be unbound from the specified list of MCPTT groups for the MCPTT client;

ac) a <transfer-announced-ind> set to:

i) "true" indicating that the call is part of an announced MCPTT call transfer; or

ii) "false" indicating that the call is not part of an announced MCPTT call transfer;

ad) a<replaces-header-value> element set to the Call-ID SIP header field value, the from-tag, and the to-tag of the MCPTT private call to be transferred. The delimiter between the Call-ID, the from-tag, and the to-tag is the semicolon (;);

ae) a <user-requested-priority> element set to the non-negative integer value requested by the user as priorityAbsence of the <emergency-ind>, <alert-ind> and <imminentperil-ind> in a SIP INVITE or a SIP REFER request indicates that the MCPTT client is initiating a non-emergency private call or non-emergency group call;

af) a <forwarding-sequence-number> element set to the total number of forwardings including that forwarding attempt;

ag) a <forwarded-by-mcptt-id> element set to the MCPTT ID of the MCPTT client to whom a private call has been placed and who has requested that the private call be forwarded either through settings at its participating MCPTT function or through manual user input.

ah) a <forwarded-by-functional-alias> element set to the functional alias received by the MCPTT client to whom a private call has been placed and who has requested that the private call be forwarded either through settings at its participating MCPTT function or through manual user input, if a functional alias was used to call the client;

ai) a <forwarding-target-id> element set to the uri of the target of the forwarding;

aj) a<forwarding-target-is-functional-alias> element set to:

i) "true" to indicate that the target of the forwarding is a functional alias; or

ii) "false" to indicate that the target of the forwarding is a MCPTT ID; and

ak) a <forwarding-target-orig-id> element set to the target uri of the forwarding as read from the user profile or entered by the MCPTT user requesting the MCPTT private call forwarding.

al) a<end-to-end-security> element set to:

i) "true" to indicate to determine the preconfigured group from which security related information is used for secure adhoc group call; or

ii) "false" to indicate that not to determine the preconfigured group from which security related information is used for secure adhoc group call;

am) a <call-participants-criterias> element set to the criteria for determining the list of MCPTT users to be called in adhoc group call, or to be included in an adhoc emergency alert. The delimiter between the criteria is the comma (,);

an) a <preconfigured-group-id> element set to the preconfigured group identity of the preconfigured group from which security related materials can be used by the adhoc group call participants to communicate securely in the adhoc group session;

ao) a <adhoc-grp-emg-alert-grp-ind> element set to:

i) "true" to indicate that the identity of adhoc group used in the adhoc group call setup request is learned during an adhoc group emergency alert procedures;

ap) a <selected-user-profile-index> set to the value contained in the "user-profile-index" attribute of the MCPTT user profile selected according to clause 4.2.2.1.2.3 of 3GPP TS 24.484 [50]; and

aq) a <req-type> element set to:

i) "mc-service-authorisation-notify-request" when a participating MCPTT function in the partner MCPTT system initiates a request to notify about the successful completion of MCPTT user service authorization after migrating to the partner MCPTT system.

ar) a <req-type> element set to:

i) "get-userlist-adhoc-group-call-request" when a controlling MCPTT function initiates a request to get userlist for adhoc group call from terminating participating MCPTT function;

ii) "adhoc-group-call-add-participants-request" when a terminating participating MCPTT function initiates a request to add user to adhoc group call notification for controlling MCPTT function;

iii) "adhoc-group-call-remove-participants-request" when a terminating participating MCPTT function initiates a request to remove user from adhoc group call notification for controlling MCPTT function; or

iv) "adhoc-group-call-release-notification-request" when a controlling MCPTT function initiates a request to stop determining the participant list for terminating participating MCPTT function; and

as) a <resp-type> element set to:

i) "get-userlist-adhoc-group-call-response" when a terminating participating MCPTT function responds to get userlist for adhoc group call request.

at) a <primary-mcptt-id> element set to the MCPTT ID of the user in the primary MCPTT system; and

au) a <req-type> element set to:

x) "migration-service-deauthorization-notification" when a participating MCPTT function in the primary MCPTT system initiates a request to notify that an MCPTT client that has been authorized for migration service in the partner MCPTT system is to be deauthorized.

ap) a <adhoc-alert-participant-list> element containing the total list of MC service users who belong to the ad hoc group irrespective if they have acknowledged the ad hoc group emergency alert or not;

aq) a <adhoc-alert-participant-not-ack-list> element containing the list of MC service users who belong to the ad hoc group but have not acknowledged the ad hoc group emergency alert;

ar) a <adhoc-emergency-ind> element set to:

i) set to "true" to indicate that the alert or call that the MCPTT client is initiating is an emergency MCPTT alert or call; or

ii) set to "false" to indicate that the MCPTT client is cancelling an emergency MCPTT alert or call (i.e. converting it back to a non-emergency call);

as) a <adhoc-alert-ind> element set to:

i) "true" in an emergency call initiation to indicate that an alert to be sent; or

ii) "false" when cancelling an emergency call which requires an alert to be cancelled;

at) <adhoc-alert-ind-rcvd>:

a) can be set to "true" and included in a SIP MESSAGE to indicate that the adhoc emergency alert or cancellation was received successfully;

au) <adhoc-emergency-ind-rcvd> element set to:

a) "true" and included in a SIP MESSAGE to indicate that the in-progress adhoc emergency cancellation request was received successfully; and

av) an <adhoc-additional-information> element set to:text information included with the adhoc group emergency alert.

aw) a <cancel-in-progress-emergency-state> set to:

i) "true" in an adhoc emergency alert initiation to indicate that the emergency state of the client is to be cleared; or

ii) "false" in an adhoc emergency alert initiation to indicate that the emergency state of the client remains unchanged.

Absence of the <broadcast-ind> in a SIP INVITE or a SIP REFER request indicates that the MCPTT client is initiating a non-broadcast group call.

Absence of the <floor-state> in a SIP 200 (OK) response from the non-controlling MCPTT function indicates that the floor is idle.

Absence of the <call-to-functional-alias-ind> in a SIP INVITE or a SIP REFER request for a first-to-answer call indicates the use of the MCPTT IDs of the potential target MCPTT users.

Absence of the <call-transfer-ind> in a SIP INVITE or a SIP REFER request for a private call indicates that the call is not caused by a request for call transfer.

Absence of the <call-forwarding-ind> in a SIP INVITE or a SIP REFER request for a private call indicates that the call is not caused by a request for call forwarding.

Absence of the <transfer-announced-ind> in a SIP INVITE or a SIP REFER request for a private call indicates that the call is not part of an announced call transfer.

Absence of the <forwarding-target-is-functional-alias> element in a SIP INVITE, a SIP REFER, or a SIP MESSAGE request indicates that the forwarding target contains an MCPTT ID.

Absence of the <cancel-in-progress-emergency-state> element in a SIP MESSAGE request indicates that the emergency state of the client remains unchanged.

The recipient of the XML ignores any unknown element and any unknown attribute.

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