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Protocol specification  
(3GPP TS 24.381 version 13.1.0 Release 13)**



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# Foreword

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# 1 Scope

The present document specifies the group management protocols needed to support Mission Critical Push To Talk (MCPTT). Group management applies only when the UE operates on the network.

Mission critical communication services are services that require preferential handling compared to normal telecommunication services, e.g. in support of police or fire brigade.

The MCPTT service can be used for public safety applications and also for general commercial applications (e.g., utility companies and railways).

The present document is applicable to User Equipment (UE) supporting the group management client (GMC) functionality, to application server supporting the group management server (GMS) functionality, and to application server supporting the MCPTT server functionality.

---

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] OMA-TS-XDM\_Core-V2\_1-20120403-A: "XML Document Management (XDM) Specification".
- [3] OMA-TS-XDM\_Group-V1\_1-20120403-A: "Group XDM Specification".
- [4] 3GPP TS 23.179: "Functional architecture and information flows to support mission critical communication services".
- [5] 3GPP TS 24.379: "Mission Critical Push To Talk (MCPTT) call control Protocol specification".
- [6] IETF RFC 4745: "Common Policy: A Document Format for Expressing Privacy Preferences".
- [7] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to ProSe function protocol aspects; Stage 3".
- [8] IETF RFC 1166: "Internet Numbers".
- [9] IETF RFC 5952: "A Recommendation for IPv6 Address Text Representation".
- [10] 3GPP TS 24.382: "Mission Critical Push To Talk (MCPTT) identity management; Protocol specification".



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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**MCPTT Group:** A group supporting the MCPTT service.

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.179 [4] apply:

**MCPTT group identity**  
**MCPTT service**  
**MCPTT user identity**

For the purposes of the present document, the following terms and definitions given in OMA OMA-TS-XDM\_Group-V1\_1 [3] apply:

**Group**

For the purposes of the present document, the following terms and definitions given in OMA OMA-TS-XDM\_Core-V2\_1 [2] apply:

**XDMC**  
**XDMS**

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

GC	General Client
GMC	Group Management Client
GMOP	Group Management OPERATION
GMS	Group Management Server
HTTP	HyperText Transfer Protocol
ICSI	IMS Communication Service Identifier
ID	IDentifier
IETF	Internet Engineering Task Force
MCPTT	Mission Critical Push To Talk
MIME	Multipurpose Internet Mail Extensions
OMA	Open Mobile Alliance
UE	User Equipment
URI	Uniform Resource Identifier
XDMC	XML Document Management Client
XDMS	XML Document Management Server
XML	eXtensible Markup Language

---

## 4 General

The present document enables a group management client (GMC) and an MCPTT server to manage group documents in a group management server (GMS).

---

## 5 Functional entities

### 5.1 Group management client (GMC)

To be compliant with the procedures in the present document, a GMC:

- shall support the role of XDMC as specified in OMA OMA-TS-XDM\_Core-V2\_1 [2];
- shall support the procedure in subclause 6.2.3;
- may support the procedure in subclause 6.3.2.2.2;
- shall support the procedure in subclause 6.3.3.2.2;
- may support the procedure in subclause 6.3.4.2.2;
- may support the procedure in subclause 6.3.5.2.2;
- may support the procedure in subclause 6.3.6.2.2;
- may support the procedure in subclause 6.3.7.2.2;
- may support the procedure in subclause 6.3.8.2.2;
- may support the procedure in subclause 6.3.9.2.2;
- may support the procedure in subclause 6.3.10.2.2;
- may support the procedure in subclause 6.3.11.2.2;
- may support the procedure in subclause 6.3.12.2.2;
- shall support the procedure in subclause 6.3.13.2.2;
- may support the procedure in subclause 6.3.14.2;
- may support the procedure in subclause 6.3.15.2; and
- shall support the procedure in subclause 6.3.16.2.

### 5.2 Group management server (GMS)

To be compliant with the procedures in the present document, a GMS:

- shall support the role of XDMS as specified in OMA OMA-TS-XDM\_Core-V2\_1 [2];
- shall support the procedure in subclause 6.2.5;
- shall support the procedure in subclause 6.3.2.3;
- shall support the procedure in subclause 6.3.3.3;
- shall support the procedure in subclause 6.3.4.3;
- shall support the procedure in subclause 6.3.5.3;
- shall support the procedure in subclause 6.3.6.3;
- shall support the procedure in subclause 6.3.7.3;
- shall support the procedure in subclause 6.3.8.3;
- shall support the procedure in subclause 6.3.9.3;
- shall support the procedure in subclause 6.3.10.3;

- shall support the procedure in subclause 6.3.11.3;
- shall support the procedure in subclause 6.3.12.3;
- shall support the procedure in subclause 6.3.13.3;
- shall support the procedure in subclause 6.3.14.3;
- shall support the procedure in subclause 6.3.15.3; and
- shall support the procedure in subclause 6.3.16.3.

## 5.3 MCPTT server

To be compliant with the procedures in the present document, an MCPTT server:

- shall support the role of XDMC as specified in OMA OMA-TS-XDM\_Core-V2\_1 [2];
- shall support the procedure in subclause 6.2.4;
- shall support the procedure in subclause 6.3.3.2.3; and
- shall support the procedure in subclause 6.3.13.2.3.

---

# 6 Procedures

## 6.1 Introduction

This clause specifies procedures enabling a group management client (GMC) and an MCPTT server to manage group documents in a group management server (GMS).

## 6.2 Common procedures

### 6.2.1 General

This subclause contains common procedures applied on HTTP signalling specified in the present document.

### 6.2.2 General client (GC) procedures

#### 6.2.2.1 General

GC procedures are usable by both GMC and MCPTT server.

#### 6.2.2.2 Accessing group document by group ID

In order to address an existing group document defining a group ID known by GC, the GC shall set the Request-URI of an HTTP request to a XCAP URI identifying a group document addressed by a group ID as described in subclause 7.2.10.2, where the group ID is set to the group ID known by GC.

### 6.2.3 Group management client (GMC) procedures

The GMC shall send the HTTP request over a TLS connection as specified for the HTTP client in the UE in annex A of 3GPP TS 24.382 [10].

The GMC shall perform the procedures in subclause 6.2.2 specified for GC.

## 6.2.4 MCPTT server procedures

The MCPTT server shall send the HTTP request as specified for the HTTP client in the network entity in annex A of 3GPP TS 24.382 [10].

The MCPTT server shall perform the procedures in subclause 6.2.2 specified for GC.

## 6.2.5 Group management server (GMS) procedures

### 6.2.5.1 General

The GMS shall handle the HTTP request as specified for the HTTP server in annex A of 3GPP TS 24.382 [10].

The GMS server shall send the HTTP request as specified for the HTTP client in the network entity in annex A of 3GPP TS 24.382 [10].

### 6.2.5.2 Access to group document of another MCPTT provider

The GMS shall be configured with a group ID routing database. The group ID routing database consists of mapping of a group ID of another MCPTT provider to an XCAP Root URI of the MCPTT provider.

If the GMS receives an HTTP request with Request-URI identifying a group document addressed by a group ID as described in subclause 7.2.10.2 and the group ID in the Request-URI identifies a group of another MCPTT provider, then GMS:

- a) shall derive XCAP root URI of the other MCPTT provider using the group ID routing database and the group ID in the Request-URI;
- b) shall replace the XCAP Root URI of the Request URI with the derived XCAP root URI of the other MCPTT provider;
- c) if the X-3GPP-Asserted-Identity header field is not present in the received HTTP request, shall insert an X-3GPP-Asserted-Identity header field with the identity of the sender of the HTTP request determined as specified in 3GPP TS 24.382 [10];
- d) if the Authorization header field is present in the received HTTP request, shall remove the Authorization header field from the HTTP request; and
- e) shall forward the HTTP request.

## 6.3 Group management procedures

### 6.3.1 General

The following procedures are defined for management of group documents:

- group document creation procedure;
- group document retrieval procedure;
- group document update procedure;
- group document deletion procedure;
- group document element creation or replacement procedure;
- group document element deletion procedure;
- group document element fetching procedure;
- group document attribute creation or replacement procedure;

- group document attribute deletion procedure;
- group document attribute fetching procedure;
- group document namespace binding fetching procedure;
- group document subscription and notification procedure;
- temporary MCPTT group formation procedure;
- temporary MCPTT group tear down procedure; and
- group document excluding group members retrieval procedure.

NOTE: CSC-3 part of MCPTT group affiliation procedure and CSC-3 part of MCPTT group de-affiliation procedure are not specified in this version of the present document.

## 6.3.2 Group document creation procedure

### 6.3.2.1 General

This procedure enables the GMC to create a group document in GMS.

### 6.3.2.2 Client procedures

#### 6.3.2.2.1 General client (GC) procedures

In order to create a group document, a GC shall create an XML document of the application usage specified in subclause 7.2.1 and shall send the XML document to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Create or Replace a Document*". The GC shall set the Request-URI of the HTTP PUT request to an XCAP URI in users tree where the XUI is set to a group creation XUI configuration parameter.

#### 6.3.2.2.2 Group management client (GMC) procedures

In order to create a group document, a GMC shall perform the procedures in subclause 6.3.2.2.1 specified for GC.

### 6.3.2.3 Group management server (GMS) procedures

A GMS shall support receiving an XML document of the application usage specified in subclause 7.2.1 according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*PUT Handling*" where the Request-URI of the HTTP PUT request identifies an XML document of the application usage specified in subclause 7.2.

If the MCPTT service provider requires that the groups are stored under XUI other than the MCPTT ID of the group creating GMC, the MCPTT service provider needs to provision the GMS with an appropriate access permissions document as specified in OMA OMA-TS-XDM\_Core-V2\_1-20120403-A [2] in the user's tree of the XUI.

## 6.3.3 Group document retrieval procedure

### 6.3.3.1 General

This procedure enables the GMC or the MCPTT server to retrieve a group document from the GMS.

### 6.3.3.2 Client procedures

#### 6.3.3.2.1 General client (GC) procedures

In order to retrieve a group document, a GC shall send an HTTP GET request with the Request URI that references the document to be retrieved to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Retrieve a Document*".

#### 6.3.3.2.2 Group management client (GMC) procedures

In order to retrieve a group document, a GMC shall perform the procedures in subclause 6.3.3.2.1 specified for GC.

#### 6.3.3.2.3 MCPTT server procedures

In order to retrieve a group document, an MCPTT server shall perform the procedures in subclause 6.3.3.2.1 specified for a GC.

#### 6.3.3.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP GET request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*GET Handling*" where the Request-URI of the HTTP GET request identifies an XML document of the application usage specified in subclause 7.2.

### 6.3.4 Group document update procedure

#### 6.3.4.1 General

This procedure enables the GMC to update a group document in the GMS.

#### 6.3.4.2 Client procedures

##### 6.3.4.2.1 General client (GC) procedures

In order to update a group document, a GC shall create an XML document of the application usage specified in subclause 7.2.1 and shall send the XML document to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Create or Replace a Document*".

##### 6.3.4.2.2 Group management client (GMC) procedures

In order to update a group document, a GMC shall perform the procedures in subclause 6.3.4.2.1 specified for a GC.

#### 6.3.4.3 Group management server (GMS) procedures

A GMS shall support receiving an XML document of the application usage specified in subclause 7.2.1 according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*PUT Handling*" where the Request-URI of the HTTP PUT request identifies an XML document of the application usage specified in subclause 7.2.

### 6.3.5 Group document deletion procedure

#### 6.3.5.1 General

This procedure enables the GMC to delete a group document in the GMS.

#### 6.3.5.2 Client procedures

##### 6.3.5.2.1 General client (GC) procedures

In order to delete a group document, a GC shall send an HTTP DELETE request with the Request URI that references the document to be deleted to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Delete a Document*".

##### 6.3.5.2.2 Group management client (GMC) procedures

In order to delete a group document, a GMC shall perform the procedures in subclause 6.3.5.2.1 specified for a GC.

### 6.3.5.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP DELETE request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*DELETE Handling*" where the Request-URI of the HTTP DELETE request identifies an XML document of the application usage specified in subclause 7.2.

### 6.3.6 Group document element creation or replacement procedure

#### 6.3.6.1 General

This procedure enables the GMC to create or replace an element of a group document from the GMS.

#### 6.3.6.2 Client procedures

##### 6.3.6.2.1 General client (GC) procedures

In order to create or replace an element of a group document, a GC shall send an HTTP PUT request with the Request URI that references the element of the document to be created or replaced to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Create or Replace an Element*".

##### 6.3.6.2.2 Group management client (GMC) procedures

In order to create or replace an element of a group document, a GMC shall perform the procedures in subclause 6.3.6.2.1 specified for a GC.

### 6.3.6.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP PUT request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*PUT Handling*" where the Request-URI of the HTTP PUT request identifies an element of XML document of the application usage specified in subclause 7.2.

### 6.3.7 Group document element deletion procedure

#### 6.3.7.1 General

This procedure enables the GMC to delete an element of a group document from the GMS.

#### 6.3.7.2 Client procedures

##### 6.3.7.2.1 General client (GC) procedures

In order to delete an element of a group document, a GC shall send an HTTP DELETE request with the Request URI that references the element of the document to be deleted to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Delete an Element*".

##### 6.3.7.2.2 Group management client (GMC) procedures

In order to delete an element of a group document, a GMC shall perform the procedures in subclause 6.3.7.2.1 specified for a GC.

### 6.3.7.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP DELETE request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*DELETE Handling*" where the Request-URI of the HTTP DELETE request identifies an element of XML document of the application usage specified in subclause 7.2.

## 6.3.8 Group document element fetching procedure

### 6.3.8.1 General

This procedure enables the GMC to fetch an element of a group document from the GMS.

### 6.3.8.2 Client procedures

#### 6.3.8.2.1 General client (GC) procedures

In order to fetch an element of a group document, a GC shall send an HTTP GET request with the Request URI that references the element of the document to be fetched to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Retrieve an Element*".

#### 6.3.8.2.2 Group management client (GMC) procedures

In order to fetch an element of a group document, a GMC shall perform the procedures in subclause 6.3.8.2.1 specified for a GC.

### 6.3.8.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP GET request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*GET Handling*" where the Request-URI of the HTTP GET request identifies an element of XML document of the application usage specified in subclause 7.2.

## 6.3.9 Group document attribute creation or replacement procedure

### 6.3.9.1 General

This procedure enables the GMC to create or replace an attribute of a group document from the GMS.

### 6.3.9.2 Client procedures

#### 6.3.9.2.1 General client (GC) procedures

In order to create or replace an attribute of a group document, a GC shall send an HTTP PUT request with the Request URI that references the attribute of the document to be created or replaced to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Create or Replace an Attribute*".

#### 6.3.9.2.2 Group management client (GMC) procedures

In order to create or replace an attribute of a group document, a GMC shall perform the procedures in subclause 6.3.9.2.1 specified for a GC.

### 6.3.9.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP PUT request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*PUT Handling*" where the Request-URI of the HTTP PUT request identifies an attribute of XML document of the application usage specified in subclause 7.2.

## 6.3.10 Group document attribute deletion procedure

### 6.3.10.1 General

This procedure enables the GMC to delete an attribute of a group document from the GMS.



## 6.3.10.2 Client procedures

### 6.3.10.2.1 General client (GC) procedures

In order to delete an attribute of a group document, a GC shall send an HTTP DELETE request with the Request URI that references the attribute of the document to be deleted to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Delete an Element*".

### 6.3.10.2.2 Group management client (GMC) procedures

In order to delete an attribute of a group document, a GMC shall perform the procedures in subclause 6.3.10.2.1 specified for a GC.

## 6.3.10.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP DELETE request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*DELETE Handling*" where the Request-URI of the HTTP DELETE request identifies an attribute of XML document of the application usage specified in subclause 7.2.

## 6.3.11 Group document attribute fetching procedure

### 6.3.11.1 General

This procedure enables the GMC to fetch an attribute of a group document from the GMS.

### 6.3.11.2 Client procedures

#### 6.3.11.2.1 General client (GC) procedures

In order to fetch an attribute of a group document, a GC shall send an HTTP GET request with the Request URI that references the attribute of the document to be fetched to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Retrieve an Attribute*".

#### 6.3.11.2.2 Group management client (GMC) procedures

In order to fetch an attribute of a group document, a GMC shall perform the procedures in subclause 6.3.11.2.1 specified for a GC.

#### 6.3.11.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP GET request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*GET Handling*" where the Request-URI of the HTTP GET request identifies an attribute of XML document of the application usage specified in subclause 7.2.

## 6.3.12 Group document namespace binding fetching procedure

### 6.3.12.1 General

This procedure enables the GMC to fetch a namespace binding of a group document from the GMS.

### 6.3.12.2 Client procedures

#### 6.3.12.2.1 General client (GC) procedures

In order to fetch a namespace binding of a group document, a GC shall send an HTTP GET request according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Fetch Namespace Bindings*".

### 6.3.12.2.2 Group management client (GMC) procedures

In order to fetch a namespace binding of a group document, a GMC shall perform the procedures in subclause 6.3.12.2.1 specified for a GC.

### 6.3.12.3 Group management server (GMS) procedures

A GMS shall support handling an HTTP GET request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*GET Handling*" where the Request-URI of the HTTP GET request identifies a namespace binding of XML document of the application usage specified in subclause 7.2.

## 6.3.13 Group document subscription and notification procedure

### 6.3.13.1 General

This procedure enables the GMC or MCPTT server to subscribe to notification of changes of a group document in GMS.

### 6.3.13.2 Client procedures

#### 6.3.13.2.1 General client (GC) procedures

In order to subscribe to an MCPTT group document, a GC shall send a SIP SUBSCRIBE request to the network according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Subscribing to Changes in the XDM Resources*". In the SIP SUBSCRIBE request, the GC:

- a) if direct subscription is used, shall set the Request URI to a SIP URI containing:
  - 1) the XUI part of the XCAP URI pointing to the MCPTT group document; and
  - 2) an "auid" parameter set to "org.openmobilealliance.groups"; and
- b) if subscription via a subscription proxy is used, shall set the Request URI to the SIP-URI of the subscription proxy.

NOTE: The body of the SIP SUBSCRIBE request contains a list of XCAP URIs pointing to the resource(s) that the GC subscribes to.

#### 6.3.13.2.2 Group management client (GMC) procedures

In order to subscribe to MCPTT group document, a GMC shall perform the procedures in subclause 6.3.13.2.1 specified for GC.

#### 6.3.13.2.3 MCPTT server procedures

In order to subscribe to an MCPTT group document, an MCPTT server shall perform the procedures in subclause 6.3.13.2.1 specified for GC.

### 6.3.13.3 Group management server (GMS) procedures

A GMS shall support handling a SIP SUBSCRIBE request from a GMC according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Subscriptions to Changes in XDM Resources*".

## 6.3.14 Temporary MCPTT group formation procedure

### 6.3.14.1 General

This procedure enables a GMC to initiate creation of a temporary MCPTT group by combining MCPTT groups.

### 6.3.14.2 Group management client (GMC) procedures

In order to form a temporary MCPTT group, a GMC shall send a HTTP POST request according to procedures specified in IETF RFC 2616 [2] and subclause 6.2.3. In the HTTP POST request, the GMC:

- a) shall set the Request-URI to an XCAP URI with the document selector identifying the temporary MCPTT group to be created; and
- b) shall include an application/g.3gpp.GMOP+xml MIME body containing a GMOP document requesting group regroup creation specified in subclause 7.3.4.3, with a <group> element containing a group document for an MCPTT group. In the group document, the GMC shall include the <on-network-temporary> element according to subclause 7.2. In the <on-network-temporary> element, the GMC shall include <constituent-MCPTT-group-IDs> element according to subclause 7.2. In the <constituent-MCPTT-group-IDs> element, the GMC shall include one <constituent-MCPTT-group-ID> element according to subclause 7.2 for each MCPTT group to be combined.

Upon reception of an HTTP 2xx response to the sent HTTP POST request, the GMC shall consider the temporary MCPTT group formation as successful.

### 6.3.14.3 Group management server (GMS) procedures

#### 6.3.14.3.1 Procedure of GMS creating a temporary MCPTT group

Upon reception of an HTTP POST request:

- a) with a Request-URI with an XCAP URI identifying a non-existing group document; and
- b) with an application/g.3gpp.GMOP+xml MIME body containing a GMOP document requesting group regroup creation specified in subclause 7.3.4.3;

then the GMS:

- a) shall determine the identity of the sender of the received HTTP POST request as specified in subclause 6.2.5;
- b) if the identity of the sender of the received HTTP POST request is not authorized to initiate temporary MCPTT group formation, shall respond with HTTP 403 (Forbidden) response to the HTTP POST request and shall not continue with rest of the steps; and
- c) for each MCPTT group ID of an MCPTT group to be combined indicated in content of a <constituent-MCPTT-group-ID> element of the <constituent-MCPTT-group-IDs> element of the <on-network-temporary> element of the group document of the <group> element of the GMOP document requesting group regroup creation specified in subclause 7.3.4.3 of the received HTTP POST request:
  - 1) shall send a HTTP POST request according to procedures specified in IETF RFC 2616 [2] and subclause 6.2.5. In the HTTP POST request, the GMS:
    - A) shall set the Request-URI to an XCAP URI:
      - i) with the document selector identifying a group document addressed by a group ID, where the group ID is set to the MCPTT group ID of the MCPTT group to be combined; and
      - ii) with the node selector identifying a <on-network-regrouped> element of the constituent MCPTT group such that the <on-network-regrouped> element has the "temporary-MCPTT-group-ID" attribute set to the content of the "uri" attribute of the <list-service> element of the group document included in the received HTTP POST request;
    - B) shall set the X-3GPP-Asserted-Identity header field as specified in 3GPP TS 24.382 [10] to a public service identity of the GMS; and
    - C) shall include an application/g.3gpp.GMOP+xml MIME body containing a GMOP document requesting group regroup check specified in subclause 7.3.4.4 with a <on-network-regrouped> element. In the <on-network-regrouped> element, the GMS:

- i) shall set the "temporary-MCPTT-group-ID" attribute to the content of the "uri" attribute of the <list-service> element of the group document included in the received HTTP POST request;
- ii) shall set the "temporary-MCPTT-group-requestor" attribute to the identity of the sender of the received HTTP POST request;
- iii) shall include the <on-network-group-priority> element set to content of the <on-network-group-priority> of the <list-service> element of the group document included in the received HTTP POST request; and
- iv) shall include the <constituent-MCPTT-group-IDs> element set to content of the <constituent-MCPTT-group-IDs> element of <on-network-temporary> element of the <list-service> element of the group document of the MCPTT group included in the received HTTP POST request.

Upon reception of a HTTP 3xx, 4xx, or 5xx responses to a sent HTTP POST request or upon timeout, the GMS shall send a HTTP 403 (Forbidden) response to the received HTTP request and shall not continue with rest of the steps.

Upon reception of HTTP 2xx responses to all sent HTTP POST requests, the GMS:

- a) for each MCPTT group ID of an MCPTT group to be combined indicated in content of a <constituent-MCPTT-group-ID> element of the <constituent-MCPTT-group-IDs> element of the <on-network-temporary> element of the <group> element of the GMOP document requesting group regroup creation specified in subclause 7.3.4.3 of the received HTTP POST request:
  - 1) shall send an HTTP POST request according to procedures specified in IETF RFC 2616 [2] and subclause 6.2.5. In the HTTP POST request, the GMS:
    - A) shall set the Request-URI to an XCAP URI:
      - i) with the document selector identifying a group document addressed by a group ID, where the group ID is set to the MCPTT group ID of the MCPTT group to be combined; and
      - ii) with the node selector identifying a <on-network-regrouped> element of the constituent MCPTT group such that the <on-network-regrouped> element has the "temporary-MCPTT-group-ID" attribute set to the content of the "uri" attribute of the <list-service> element of the group document included in the received HTTP POST request;
    - B) shall set the X-3GPP-Asserted-Identity header field as specified in 3GPP TS 24.382 [10] to a public service identity of the GMS; and
    - C) shall include an application/g.3gpp.GMOP+xml MIME body with a GMOP document requesting group regroup notification specified in subclause 7.3.4.5. In the GMOP document requesting group regroup notification, the GMS:
      - i) shall include a <on-network-regrouped> element. In the <on-network-regrouped> element, the GMS:
        - shall set the "temporary-MCPTT-group-ID" attribute to the content of the "uri" attribute of the <list-service> element of the group document included in the received HTTP POST request;
        - shall set the "temporary-MCPTT-group-requestor" attribute to the identity of the sender of the received HTTP POST request;
        - shall include the <on-network-group-priority> element set to content of the <on-network-group-priority> of the <list-service> element of the group document included in the received HTTP POST request; and
        - shall include the <constituent-MCPTT-group-IDs> element set to content of the <constituent-MCPTT-group-IDs> element of <on-network-temporary> element of the <list-service> element of the group document of the MCPTT group included in the received HTTP POST request.

NOTE: GMK, and MKFC are not included in the GMOP document requesting group regroup notification as GMK and MKFC are provided only using SIP.

Upon reception of HTTP 2xx responses to all sent HTTP POST requests, the GMS shall create the group document of the temporary MCPTT group at the location specified by the Request-URI of the received HTTP POST request and shall send an HTTP 2xx response to the received HTTP request.

### 6.3.14.3.2 Procedure of GMS owning an MCPTT group to be combined

Upon reception of an HTTP POST request:

- a) with the Request-URI set to an XCAP URI identifying an existing or a non-existing <on-network-regrouped> element of an existing group document of an MCPTT group; and
- b) with an application/g.3gpp.GMOP+xml MIME body containing a GMOP document requesting group regroup check specified in subclause 7.3.4.4;

the GMS:

- a) if:
  - 1) the Request-URI identifies an existing <on-network-regrouped> element of an existing group document of an MCPTT group;
  - 2) the Request-URI identifies a non-existing <on-network-regrouped> element of an existing group document defining a temporary MCPTT group;
  - 3) identity indicated in the X-3GPP-Asserted-Identity header field is not authorized to combine to a temporary MCPTT group the MCPTT group for which XML element is indicated in the Request-URI; or
  - 4) the MIME body of the HTTP POST request is not acceptable;

then shall respond with HTTP 403 (Forbidden) response to the HTTP POST request and shall not continue with rest of the steps; and

- b) shall respond with HTTP 200 (OK) response to the HTTP POST request.

Upon reception of an HTTP POST request:

- a) with the Request-URI set to an XCAP URI identifying an existing or a non-existing <on-network-regrouped> element of an existing group document of an MCPTT group; and
- b) with an application/g.3gpp.GMOP+xml MIME body containing a GMOP document requesting group regroup notification specified in subclause 7.3.4.5;

the GMS:

- a) if:
  - 1) the Request-URI identifies an existing <on-network-regrouped> element of an existing group document of an MCPTT group;
  - 2) the Request-URI identifies a non-existing <on-network-regrouped> element of an existing group document defining a temporary MCPTT group;
  - 3) identity indicated in the X-3GPP-Asserted-Identity header field is not authorized to combine to a temporary MCPTT group the MCPTT group for which XML element is indicated in the Request-URI; or
  - 4) the MIME body of the HTTP POST request is not acceptable;

then shall respond with HTTP 403 (Forbidden) response to the HTTP POST request and shall not continue with rest of the steps;

- b) shall place the <on-network-regrouped> element of the GMOP document requesting group regroup notification of the HTTP POST request at the location identified by the Request-URI of the received HTTP POST request;
- c) shall respond with HTTP 200 (OK) response to the HTTP POST request; and

NOTE: GMK, and MKFC are not included in the GMOP document requesting group regroup notification as GMK and MKFC are provided only using SIP.

- d) shall subscribe for changes of the group document of the temporary MCPTT Group ID indicated in the "temporary-MCPTT-group-ID" attribute of the <on-network-regrouped> element of the GMOP document requesting group regroup notification.

## 6.3.15 Temporary MCPTT group tear down procedure

### 6.3.15.1 General

This procedure enables a GMC to initiate tear down of a temporary MCPTT group.

### 6.3.15.2 Group management client (GMC) procedures

In order to tear down a temporary MCPTT group, the GMC shall send an HTTP DELETE request with Request-URI with an XCAP URI identifying a group document of the temporary MCPTT group according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*Delete an Element*".

### 6.3.15.3 Group management server (GMS) procedures

#### 6.3.15.3.1 Procedure of GMS owning the temporary MCPTT group

Upon reception of an HTTP DELETE request with Request-URI with an XCAP URI identifying a group document of a temporary MCPTT group, the GMS:

- a) for each constituent MCPTT group indicated in the group document indicated by Request-URI:
  - 1) shall send an HTTP DELETE request. In the HTTP DELETE request, the GMS:
    - A) shall set the Request-URI to an XCAP URI identifying a <on-network-regrouped> element of the constituent MCPTT group, such that the "temporary-MCPTT-group-ID" attribute of the <on-network-regrouped> element contains the temporary MCPTT group ID of the temporary MCPTT group; and
    - B) shall set the X-3GPP-Asserted-Identity header field as specified in 3GPP TS 24.382 [10] to a public service identity of the GMS.

Upon reception of an HTTP response to all sent HTTP DELETE requests, the GMS shall remove the group document of the temporary MCPTT group and shall send an HTTP 2xx response to the received HTTP request.

#### 6.3.15.3.2 Procedure of GMS owning a combined MCPTT group

Upon reception of an HTTP DELETE request with Request-URI identifying a <on-network-regrouped> element of an MCPTT group document, the GMS:

- a) if:
  - 1) the Request-URI identifies an existing <on-network-regrouped> element of a non-existing group document; or
  - 2) identity indicated in the X-3GPP-Asserted-Identity header field is not authorized to remove from a temporary MCPTT group the MCPTT group for which XML element is indicated in the Request-URI;then shall respond with HTTP 403 (Forbidden) response to the HTTP DELETE request and shall not continue with rest of the steps; and
- b) shall act according to according to procedures specified in OMA OMA-TS-XDM\_Core-V2\_1 [2] "*DELETE Handling*".

## 6.3.16 Group document excluding group members retrieval procedure

### 6.3.16.1 General

This procedure enables the GMC to retrieve a group document excluding group members from the GMS.

When the MCPTT user requires the group document, then the default action by the GMC is to use the procedure in subclause 6.3.16.2 to request the group document excluding the group members from the GMS. If the MCPTT user

requires the group document including the group members, then the GMC will request the entire group document using the procedures described in subclause 6.3.3.2.1.

### 6.3.16.2 Group management client (GMC) procedures

In order to retrieve a group document except group members, a GMC shall send an HTTP POST request according to procedures specified in IETF RFC 2616 [2] and subclause 6.2.3. In the HTTP POST request, the GMC:

- a) shall set the Request-URI to XCAP URI of the group document addressed by a group ID; and
- b) shall include an application/g.3gpp.GMOP+xml MIME body containing a GMOP document requesting retrieval of a group document excluding group members specified in subclause 7.3.4.2.

Upon reception of an HTTP 2xx response to the HTTP POST request such that the HTTP 2xx response contains a MIME body of the MIME type specified in subclause 7.2.6, the GMC shall consider the MIME body as the group document excluding group members.

### 6.3.16.3 Group management server (GMS) procedures

Upon reception of an HTTP POST request:

- a) with a Request-URI set to an XCAP URI identifying an existing group document; and
- b) with application/g.3gpp.GMOP+xml MIME body containing a GMOP document for retrieval of a group document excluding group members specified in subclause 7.3.4.2;

the GMS shall send an HTTP 2xx response to the received HTTP request. In the HTTP 2xx response, the GMS shall include a MIME body of the MIME type specified in subclause 7.2.6, containing a group document:

- a) placed at location identified by the Request-URI; and
- b) not including the <list> element of the <list-service> element of the <group> root element.

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## 7 Coding

### 7.1 General

This clause specifies coding enabling a group management client (GMC) and an MCPTT server to manage group documents in a group management server (GMS).

### 7.2 Group coding

#### 7.2.1 General

Group document is described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Group*".

The requirements in the remaining subclauses of the parent subclause of this subclause apply for an MCPTT group document, i.e. a group document containing an MCPTT group.

The usage of an MCPTT group document in an MCPTT service is described in 3GPP TS 24.379 [5].

#### 7.2.2 Structure

The group document structure is described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Structure*" with the MCPTT specific clarifications specified in this subclause.

The <list-service> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) shall include a "uri" attribute specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];

- b) may include a <display-name> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- c) may include a <list> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- d) may include an <on-network-invite-members> element specified in subclause 7.2.4.2;
- e) may include a <ruleset> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- f) shall include a <supported-services> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- g) may include a <on-network-disabled> element specified in subclause 7.2.4.2;
- h) may include a <on-network-group-priority> element specified in subclause 7.2.4.2;
- i) may include a <on-network-max-participant-count> element specified in subclause 7.2.4.2;
- j) may include a <on-network-temporary> element specified in subclause 7.2.4.2;
- k) may include zero or more <on-network-regrouped> elements specified in subclause 7.2.4.2;
- l) may include an <off-network-ProSe-layer-2-group-id> element specified in subclause 7.2.4.2;
- m) may include an <off-network-PDN-type> element specified in subclause 7.2.4.2. In the present document, the <event> element can only have the values specified by the off-network-PDN-type-value ABNF rule of table 7.2.2-1;
- n) may include an <off-network-IP-multicast-address> element specified in subclause 7.2.4.2 containing a IP multicast address. If the IP multicast address is an IPv4 address, its value is coded as a string representing the dotted-decimal format of the IPv4 address as specified in IETF RFC 1166 [8]. If the IP multicast address is an IPv6 address, its value is coded as a string representing the canonical text representation format of the IPv6 address as specified in IETF RFC 5952 [9];
- o) may include an <off-network-ProSe-signalling-PPPP> element specified in subclause 7.2.4.2;
- p) may include an <off-network-ProSe-emergency-call-signalling-PPPP> element specified in subclause 7.2.4.2;
- q) may include an <off-network-ProSe-imminent-peril-call-signalling-PPPP> element specified in subclause 7.2.4.2;
- r) may include an <off-network-ProSe-media-PPPP> element specified in subclause 7.2.4.2;
- s) may include an <off-network-ProSe-emergency-call-media-PPPP> element specified in subclause 7.2.4.2;
- t) may include an <off-network-ProSe-imminent-peril-call-media-PPPP> element specified in subclause 7.2.4.2;
- u) may include an <off-network-ProSe-relay-service-code> element specified in subclause 7.2.4.2;
- v) may include an <owner> element specified in subclause 7.2.4.2;
- w) may include a <preferred-voice-encodings> element specified in subclause 7.2.4.2;
- x) may include a <level-within-group-hierarchy> element specified in subclause 7.2.4.2;
- y) may include a <level-within-user-hierarchy> element specified in subclause 7.2.4.2;
- z) may include an <on-network-in-progress-emergency-state-cancellation-timeout> element specified in subclause 7.2.4.2;
- aa) may include an <on-network-in-progress-imminent-peril-state-cancellation-timeout> element specified in subclause 7.2.4.2;
- ab) may include an <off-network-in-progress-emergency-state-cancellation-timeout> element specified in subclause 7.2.4.2;
- ac) may include an <off-network-in-progress-imminent-peril-state-cancellation-timeout> element specified in subclause 7.2.4.2;
- ad) may include an <on-network-hang-timer> element specified in subclause 7.2.4.2;



- ae) may include an <on-network-maximum-duration> element specified in subclause 7.2.4.2;
- af) may include an <off-network-hang-timer> element specified in subclause 7.2.4.2;
- ag) may include an <off-network-maximum-duration> element specified in subclause 7.2.4.2;
- ah) may include an <on-network-minimum-number-to-start> element specified in subclause 7.2.4.2;
- ai) may include an <on-network-timeout-for-acknowledgement-of-required-members> element specified in subclause 7.2.4.2;
- aj) may include an <on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members> element specified in subclause 7.2.4.2. The <on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members> element can only have the values specified by the on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members ABNF rule of table 7.2.2-1. If a value of the <on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members> element is other than those specified by the defined-actions ABNF rule of table 7.2.2-1, the <on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members> element is interpreted as having the value specified by the abandon-action ABNF rule of table 7.2.2-1;
- ak) may include zero or more <group-key-transport-payload> elements specified in subclause 7.2.4.2;
- al) may include a <protect-media> element specified in subclause 7.2.4.2;
- am) may include a <protect floor-control-signalling> element specified in subclause 7.2.4.2; and
- an) may include a <require-multicast-floor-control-signalling> element specified in subclause 7.2.4.2.

The <list> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) may include zero or more <entry> elements specified in OMA OMA-TS-XDM\_Group-V1\_1 [3].

The <entry> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) shall include a "uri" attribute specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- b) may include a <display-name> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- c) may include a <on-network-required> element specified in subclause 7.2.4.2;
- d) may include a <user-priority> element specified in subclause 7.2.4.2;
- e) may include an <off-network-user-info-id> element specified in subclause 7.2.4.2;
- f) may include a <participant-type> element specified in subclause 7.2.4.2; and
- g) may include an <on-network-recvonly> element specified in subclause 7.2.4.2.

The <ruleset> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) may include a <rule> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3].

The <rule> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) may include a <conditions> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3]; and
- b) may include an <actions> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3].

The <conditions> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) may include an <identity> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3]; and
- b) may include an <is-list-member> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3].

The <actions> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) may include an <allow-initiate-conference> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];

- b) may include a <join-handling> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3];
- c) may include an <allow-MCPTT-emergency-call> element specified in subclause 7.2.4.2;
- d) may include an <allow-imminent-peril-call> element specified in subclause 7.2.4.2;
- e) may include an <allow-MCPTT-emergency-alert> element specified in subclause 7.2.4.2;
- f) may include an <on-network-allow-getting-member-list> element specified in subclause 7.2.4.2;
- g) may include an <on-network-allow-getting-affiliation-list> element specified in subclause 7.2.4.2; and
- h) may include an <on-network-allow-conference-state> element specified in subclause 7.2.4.2.

The <supported-services> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) shall include a <service> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3].

The <service> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) shall include an "enabler" attribute specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] including a string defining an enabler. The "enabler" attribute is set to the MCPTT ICSI specified in the 3GPP TS 24.379 [5]; and
- b) shall include a <group-media> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3].

The <group-media> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] of an MCPTT group document:

- a) shall include an <mcptt-speech> element specified in subclause 7.2.4.2.

NOTE: An MCPTT group document can contain further attributes and elements from any namespaces, according to the XML schemas of the MCPTT group document.

The <on-network-temporary> element specified in subclause 7.2.4.2 of an MCPTT group document:

- a) shall include a <constituent-MCPTT-group-IDs> element specified in subclause 7.2.4.2; and
- b) may include an <anyExt> element specified in subclause 7.2.4.2.

The <constituent-MCPTT-group-IDs> element specified in subclause 7.2.4.2 of an MCPTT group document:

- a) may include zero, or more <constituent-MCPTT-group-ID> elements specified in subclause 7.2.4.2; and
- b) may include an <anyExt> element specified in subclause 7.2.4.2.

The <on-network-regrouped> element specified in subclause 7.2.4.2 of an MCPTT group document:

- a) shall include a "temporary-MCPTT-group-ID" attribute specified in subclause 7.2.4.2;
- b) may include a <on-network-group-priority> element specified in subclause 7.2.4.2;
- c) shall include a <constituent-MCPTT-group-IDs> element specified in subclause 7.2.4.2; and
- d) may include an <anyExt> element specified in subclause 7.2.4.2.

The <preferred-voice-encodings> element specified in subclause 7.2.4.2 of an MCPTT group document:

- a) shall include one or more <encoding> element specified in subclause 7.2.4.2.

The <encoding> element specified in subclause 7.2.4.2 of an MCPTT group document:

- a) shall include a "name" attribute with value equal to a value of the <encoding name> field of a=rtptime attribute as defined in IETF RFC 4566 [rfc4566].

**Table 7.2.2-1: ABNF syntax of values of the elements**

```

off-network-PDN-type-values = IPv4-value / IPv6-value
IPv4-value = %x49.50.76.34 ; "IPv4"
IPv6-value = %x49.50.76.36 ; "IPv6"

```

```

on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members
= defined-actions / future-actions
defined-actions = proceed-action / abandon-action
proceed-action = %x70.72.6f.63.65.65.64 ; "proceed"
abandon-action = %x61.62.61.6e.64.6f.6e ; "abandon"
future-actions = 1*( ALPHA / DIGIT / "-" )

```

Elements and attributes of the group document are defined in various namespaces. The group document refers to namespaces using prefixes specified in table 7.2.2-2.

**Table 7.2.2-2: Assignment of prefixes to namespace names in group documents**

Prefix	Namespace
rl	urn:ietf:params:xml:ns:resource-lists
cp	urn:ietf:params:xml:ns:common-policy
ocp	urn:oma:xml:xdm:common-policy
oxe	urn:oma:xml:xdm:extensions
mcpttgi	urn:3gpp:ns:mcpttGroupInfo:1.0
NOTE:	The "urn:oma:xml:poc:list-service" namespace is the default namespace so no prefix is used for it in the group document.

### 7.2.3 Application Unique ID

Application Unique ID is described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Application Unique ID*".

### 7.2.4 XML schema

#### 7.2.4.1 General

The group document is composed according the XML schema described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*XML Schema*", and extended with extensions from the XML schema defined in subclause 7.2.4.2.

#### 7.2.4.2 XML schema for MCPTT specific extensions

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema
  targetNamespace="urn:3gpp:ns:mcpttGroupInfo:1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mcpttgi="urn:3gpp:ns:mcpttGroupInfo:1.0"
  xmlns:oxe="urn:oma:xml:xdm:extensions"
  xmlns:rl="urn:ietf:params:xml:ns:resource-lists"
  elementFormDefault="qualified" attributeFormDefault="unqualified">

  <xs:import namespace="urn:oma:xml:xdm:extensions"/>
  <xs:import namespace="urn:ietf:params:xml:ns:resource-lists"/>

  <!-- MCPTT specific "list-service" child elements -->
  <xs:element name="on-network-disabled" type="mcpttgi:emptyType"/>
  <xs:element name="on-network-group-priority" type="mcpttgi:priorityType"/>
  <xs:element name="on-network-temporary" type="mcpttgi:temporaryType"/>
  <xs:element name="on-network-regrouped" type="mcpttgi:regroupedType"/>
  <xs:element name="off-network-ProSe-layer-2-group-id" type="xs:hexBinary"/>
  <xs:element name="off-network-IP-multicast-address" type="xs:string"/>
  <xs:element name="off-network-PDN-type" type="xs:string"/>
  <xs:element name="off-network-ProSe-signalling-PPPP" type="xs:hexBinary"/>
  <xs:element name="off-network-ProSe-emergency-call-signalling-PPPP" type="xs:hexBinary"/>
  <xs:element name="off-network-ProSe-imminent-peril-call-signalling-PPPP" type="xs:hexBinary"/>
  <xs:element name="off-network-ProSe-media-PPPP" type="xs:hexBinary"/>
  <xs:element name="off-network-ProSe-emergency-call-media-PPPP" type="xs:hexBinary"/>
  <xs:element name="off-network-ProSe-imminent-peril-call-media-PPPP" type="xs:hexBinary"/>
  <xs:element name="off-network-ProSe-relay-service-code" type="xs:hexBinary"/>
  <xs:element name="on-network-max-participant-count" type="xs:nonNegativeInteger"/>
  <xs:element name="on-network-invite-members" type="xs:boolean"/>
  <xs:element name="owner" type="xs:string"/>
  <xs:element name="preferred-voice-encodings" type="mcpttgi:encodingsType"/>
  <xs:element name="level-within-group-hierarchy" type="xs:unsignedShort"/>
  <xs:element name="level-within-user-hierarchy" type="xs:unsignedShort"/>

```

```

    <xs:element name="on-network-in-progress-emergency-state-cancellation-timeout"
type="xs:duration"/>
    <xs:element name="on-network-in-progress-imminent-peril-state-cancellation-timeout"
type="xs:duration"/>
    <xs:element name="off-network-in-progress-emergency-state-cancellation-timeout"
type="xs:duration"/>
    <xs:element name="off-network-in-progress-imminent-peril-state-cancellation-timeout"
type="xs:duration"/>
    <xs:element name="on-network-hang-timer" type="xs:duration"/>
    <xs:element name="on-network-maximum-duration" type="xs:duration"/>
    <xs:element name="off-network-hang-timer" type="xs:duration"/>
    <xs:element name="off-network-maximum-duration" type="xs:duration"/>
    <xs:element name="on-network-minimum-number-to-start" type="xs:unsignedShort"/>
    <xs:element name="on-network-timeout-for-acknowledgement-of-required-members" type="xs:duration"/>
    <xs:element name="on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-
members" type="xs:string"/>
    <xs:element name="group-key-transport-payload" type="xs:hexBinary"/>
    <xs:element name="protect-media" type="xs:boolean"/>
    <xs:element name="protect-floor-control-signalling" type="xs:boolean"/>
    <xs:element name="require-multicast-floor-control-signalling" type="mcpttgi:emptyType"/>

<!-- MCPTT specific "entry" child elements -->
<xs:element name="on-network-required" type="mcpttgi:emptyType"/>
<xs:element name="user-priority" type="mcpttgi:priorityType"/>
<xs:element name="off-network-user-info-id" type="xs:hexBinary"/>
<xs:element name="participant-type" type="xs:string"/>
<xs:element name="on-network-recvonly" type="mcpttgi:emptyType"/>
<!-- MCPTT specific "actions" child elements -->
<xs:element name="allow-MCPTT-emergency-call" type="xs:boolean"/>
<xs:element name="allow-imminent-peril-call" type="xs:boolean"/>
<xs:element name="allow-MCPTT-emergency-alert" type="xs:boolean"/>
<xs:element name="on-network-allow-getting-member-list" type="xs:boolean"/>
<xs:element name="on-network-allow-getting-affiliation-list" type="xs:boolean"/>
<xs:element name="on-network-allow-conference-state" type="xs:boolean"/>

<!-- MCPTT specific media elements -->
<xs:element name="mcptt-speech" type="oxe:extensionType"/>

<!-- MCPTT specific complex type definitions -->

<!-- empty complex type -->
<xs:complexType name="emptyType"/>

<!-- complex type for temporary element -->
<xs:complexType name="temporaryType">
  <xs:sequence>
    <xs:element name="constituent-MCPTT-group-IDs"
      type="mcpttgi:constituentMCPTTgroupTypeIDsType"/>
    <xs:element name="anyExt" type="mcpttgi:anyExtType" minOccurs="0"/>
    <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:anyAttribute namespace="##any" processContents="lax"/>
</xs:complexType>

<!-- complex type for constituent-MCPTT-group-ID element -->
<xs:complexType name="constituentMCPTTgroupTypeIDsType">
  <xs:sequence>
    <xs:element name="constituent-MCPTT-group-ID" type="xs:anyURI" minOccurs="0"
maxOccurs="unbounded"/>
    <xs:element name="anyExt" type="mcpttgi:anyExtType" minOccurs="0"/>
    <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:anyAttribute namespace="##any" processContents="lax"/>
</xs:complexType>

<!-- complex type for regrouped element -->
<xs:complexType name="regroupedType">
  <xs:sequence>
    <xs:element ref="mcpttgi:on-network-group-priority"/>
    <xs:element name="constituent-MCPTT-group-IDs"
      type="mcpttgi:constituentMCPTTgroupTypeIDsType"/>
    <xs:element name="anyExt" type="mcpttgi:anyExtType" minOccurs="0"/>
    <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="temporary-MCPTT-group-ID" type="xs:anyURI" use="required"/>
  <xs:attribute name="temporary-MCPTT-group-requestor" type="xs:anyURI" use="required"/>
  <xs:anyAttribute namespace="##any" processContents="lax"/>
</xs:complexType>

```

```

<!-- encodingsType complex type -->
<xs:complexType name="encodingsType">
  <xs:sequence>
    <xs:element name="encoding" type="mcpttgi:encodingType" maxOccurs="unbounded"/>
    <xs:element name="anyExt" type="mcpttgi:anyExtType" minOccurs="0"/>
    <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:anyAttribute namespace="##any" processContents="lax"/>
</xs:complexType>

<!-- encodingType complex type -->
<xs:complexType name="encodingType">
  <xs:sequence>
    <xs:element name="anyExt" type="mcpttgi:anyExtType" minOccurs="0"/>
    <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="name" type="xs:string" use="required"/>
  <xs:anyAttribute namespace="##any" processContents="lax"/>
</xs:complexType>

<!-- complex type for any extensions element -->
<xs:complexType name="anyExtType">
  <xs:sequence>
    <xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

<!-- simple type for priority element -->
<xs:simpleType name="priorityType">
  <xs:restriction base="xs:unsignedShort">
    <xs:minInclusive value="0"/>
    <xs:maxInclusive value="7"/>
  </xs:restriction>
</xs:simpleType>

</xs:schema>

```

## 7.2.5 Default namespace

Default namespace is described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Default Namespace*".

## 7.2.6 MIME type

MIME type is described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*MIME Type*".

## 7.2.7 Validation constraints

Validation constraints are described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Validation Constraints*", along with the validations constraints described in this subclause.

When the <on-network-invite-members> element contains a value "true" then the <on-network-maximum-duration> element shall contain a value.

When the <on-network-invite-members> element contains a value "false" then a value may be included in the <on-network-maximum-duration> element.

## 7.2.8 Data semantics

Data semantics are described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Data Semantics*" with the MCPTT specific clarifications specified in this subclause.

A group document is an MCPTT group document only if:

- a) the <supported-services> element is present in the group document;
- b) the <service> child element of the <supported-services> element is present;

- c) the <service> element includes the "enabler" attribute set to the MCPTT ICSI specified in the 3GPP TS 24.379 [5];
- d) the <group-media> child element of the <service> element is present; and
- e) the <mcptt-speech> child element of the <group-media> element is present.

If a group document includes an element not specified in subclause 7.2.2 for an MCPTT group document and the element has the "must-understand" attribute, then the group document shall be ignored.

If a group document includes an element not specified in subclause 7.2.2 for an MCPTT group document and the element:

- a) does not have the "must-understand" attribute; and
- b) is not a descendant of a <conditions> element;

then the element shall be ignored.

If a group document includes an element not specified in subclause 7.2.2 for an MCPTT group document and the element:

- a) does not have the "must-understand" attribute; and
- b) is a descendant of a <conditions> element;

then the element shall be evaluated as not known element according to IETF RFC 4745 [6].

If a group document includes an attribute not specified in subclause 7.2.2 for an MCPTT group and different from the "must-understand" attribute, then the attribute shall be ignored.

The possible values of the <on-network-invite-members> element are:

- a) "true" which represents the pre-arranged group in on-network procedures; and
- b) "false" which represents the chat group in on-network procedures. This value is used when the element is not present.

NOTE 1: Presence or absence of the <invite-members> element specified in OMA OMA-TS-XDM\_Group-V1\_1 [3] does not impact MCPTT procedures.

The <display-name> element of a <list-service> element of a group document contains the group name.

The <list> element of a <list-service> element of a group document contains the group members.

The <ruleset> element of a <list-service> element of a group document contains the authorization policy associated with this group.

The <supported-services> element of a <list-service> element of a group document contains the supported services of this group.

The "uri" attribute of a <list-service> element of a group document contains the group ID. The group ID of an MCPTT group document:

- a) is also the MCPTT group identity, if the MCPTT group is not a temporary MCPTT group; and
- b) is also the temporary MCPTT group identity, if the MCPTT group is a temporary MCPTT group.

Presence of the <on-network-disabled> element in the <list-service> element of the MCPTT group document indicates that the MCPTT group is disabled in on-network procedures. Absence of the <on-network-disabled> element in the <list-service> element of the MCPTT group document indicates that the MCPTT group is enabled in on-network procedures.

Value of the <on-network-group-priority> element of the <list-service> element of the MCPTT group document indicates the priority level of the group in on-network procedures. Higher value indicates higher priority. Absence of the <on-network-group-priority> element of the <list-service> element of the MCPTT group document indicates the lowest possible priority.

Value of the <on-network-max-participant-count> element of the <list-service> element of the MCPTT group document indicates the maximum number of participants in the MCPTT group session in on-network procedures.

Presence of the <on-network-temporary> element in the <list-service> element of the MCPTT group document indicates that the MCPTT group is a temporary MCPTT group. Each <constituent-MCPTT-group-ID> child elements of the <constituent-MCPTT-group-IDs> element of the <on-network-temporary> element indicates MCPTT group ID of a constituent MCPTT group of the temporary MCPTT group. Absence of the <on-network-temporary> element in the <list-service> element of the MCPTT group document indicates that the MCPTT group is not a temporary MCPTT group.

Presence of a <on-network-regrouped> element in the <list-service> element of the MCPTT group document indicates that the MCPTT group is a constituent MCPTT group of a temporary MCPTT group with MCPTT Group ID indicated in the value of the "temporary-MCPTT-group-ID" attribute of the <on-network-regrouped> element. The <on-network-group-priority> child element of the <on-network-regrouped> element indicates the priority level of the temporary MCPTT group. Higher value indicates higher priority. Each <constituent-MCPTT-group-ID> child elements of the <constituent-MCPTT-group-IDs> element of the <on-network-regrouped> element indicates MCPTT group ID of a constituent MCPTT group of the temporary MCPTT group. Absence of the <on-network-regrouped> element in the <list-service> element of the MCPTT group document indicates that the MCPTT group is not a constituent MCPTT group of a temporary MCPTT group.

Value of the <off-network-ProSe-layer-2-group-id> element of the <list-service> element of the MCPTT group document indicates the ProSe layer-2 group ID specified in 3GPP TS 24.334 [7] assigned to the MCPTT group for usage in the off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-layer-2-group-id> element of the <list-service> element of the MCPTT group document indicates that the MCPTT group is not to be used in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-PDN-type> element of the <list-service> element of the MCPTT group document indicates the IP version to be used in off-network procedures specified in 3GPP TS 24.379 [5] assigned to the MCPTT group for usage in the off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-PDN-type> element of the <list-service> element of the MCPTT group document indicates that the MCPTT group is not to be used in off-network procedures specified in 3GPP TS 24.379 [5]. A value of the <off-network-PDN-type> element of the <list-service> element of the MCPTT group document other than any of the values specified in table 7.2.2-1 indicates that the MCPTT group is not to be used in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-IP-multicast-address> element of the <list-service> element of the MCPTT group document indicates the IP multicast address assigned to the MCPTT group for usage in the off-network procedures specified in 3GPP TS 24.379 [5]. The IP multicast address is of the IP version to be used in off-network procedures for the MCPTT group. Incorrect format of the <off-network-IP-multicast-address> element of the <list-service> element of the MCPTT group document indicates that the MCPTT group is not to be used in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-IP-multicast-address> element of the <list-service> element of the MCPTT group document indicates that the MCPTT group is not to be used in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-signalling-PPPP> element of the <list-service> element of the MCPTT group document indicates the ProSe Per-Packet Priority value to be used when transmitting IP packets carrying signalling for a call on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-signalling-PPPP> element of the <list-service> element of the MCPTT group document indicates that a call cannot be established on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-emergency-call-signalling-PPPP> element of the <list-service> element of the MCPTT group document indicates the ProSe Per-Packet Priority value to be used when transmitting IP packets carrying signalling for an MCPTT-emergency call on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-emergency-call-signalling-PPPP> element of the <list-service> element of the MCPTT group document indicates that an MCPTT-emergency call cannot be established on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-imminent-peril-call-signalling-PPPP> element of the <list-service> element of the MCPTT group document indicates the ProSe Per-Packet Priority value to be used when transmitting IP packets carrying signalling for an imminent peril call on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-imminent-peril-call-signalling-PPPP> element of the <list-service> element of the MCPTT group document indicates that an imminent peril call cannot be established on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-media-PPPP> element of the <list-service> element of the MCPTT group document indicates the ProSe Per-Packet Priority value to be used when transmitting IP packets carrying media for a call on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-media-PPPP> element of the <list-service> element of the MCPTT group document indicates that a call cannot be established on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-emergency-call-media-PPPP> element of the <list-service> element of the MCPTT group document indicates the ProSe Per-Packet Priority value to be used when transmitting IP packets carrying media for an MCPTT-emergency call on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-emergency-call-media-PPPP> element of the <list-service> element of the MCPTT group document indicates that an MCPTT-emergency call cannot be established on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-imminent-peril-call-media-PPPP> element of the <list-service> element of the MCPTT group document indicates the ProSe Per-Packet Priority value to be used when transmitting IP packets carrying media for an imminent peril call on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-imminent-peril-call-media-PPPP> element of the <list-service> element of the MCPTT group document indicates that an imminent peril call cannot be established on the MCPTT group in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <off-network-ProSe-relay-service-code> element of the <list-service> element of the MCPTT group document indicates of a ProSe relay service code specified in 3GPP TS 24.334 [7] to be used by a UE when the UE accessing a UE-to-network relay in procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-ProSe-relay-service-code> element of the <list-service> element of the MCPTT group document indicates that the MCPTT group is not to be accessed using any procedures specified in 3GPP TS 24.379 [5] which requires support of a ProSe UE-to-network relay.

Value of the <owner> element of the <list-service> element of the MCPTT group document indicates the group's owner (mission critical organisation) specified in 3GPP TS 23.179 [4].

Value of the "name" attribute of the <encoding> element of the <preferred-voice-encodings> element of the <list-service> element of the MCPTT group document indicates the preferred RTP payload format to be used for voice encoding in MCPTT group sessions of the MCPTT group.

Value of the <level-within-group-hierarchy> element of the <list-service> element of the MCPTT group document indicates the level within group hierarchy specified in 3GPP TS 23.179 [4].

Value of the <level-within-user-hierarchy> element of the <list-service> element of the MCPTT group document indicates the level within user hierarchy specified in 3GPP TS 23.179 [4].

Value of the <on-network-in-progress-emergency-state-cancellation-timeout> element of the <list-service> element of the MCPTT group document indicates the timeout value for the cancellation of an in progress emergency in on-network procedures.

Value of the <on-network-in-progress-imminent-peril-state-cancellation-timeout> element of the <list-service> element of the MCPTT group document indicates the timeout value for the cancellation of an in progress imminent-peril group call in on-network procedures.

Value of the <off-network-in-progress-emergency-state-cancellation-timeout> element of the <list-service> element of the MCPTT group document indicates the timeout value for the cancellation of an in progress emergency in off-network procedures.

Value of the <off-network-in-progress-imminent-peril-state-cancellation-timeout> element of the <list-service> element of the MCPTT group document indicates the timeout value for the cancellation of an in progress imminent-peril group call in off-network procedures.

Value of the <on-network-hang-timer> element of the <list-service> element of the MCPTT group document indicates the group call hang timer specified in 3GPP TS 23.179 [4] in on-network procedures.

Value of the <on-network-maximum-duration> element of the <list-service> element of the MCPTT group document indicates the maximum duration of group calls specified in 3GPP TS 23.179 [4] in on-network procedures.

Value of the <off-network-hang-timer> element of the <list-service> element of the MCPTT group document indicates the group call hang timer specified in 3GPP TS 23.179 [4] in off-network procedures.



Value of the <off-network-maximum-duration> element of the <list-service> element of the MCPTT group document indicates the maximum duration of group calls specified in 3GPP TS 23.179 [4] in off-network procedures.

Value of the <on-network-minimum-number-to-start> element of the <list-service> element of the MCPTT group document indicates the minimum number of affiliated group members acknowledging before start of audio transmission specified in 3GPP TS 23.179 [4] in on-network procedures.

Value of the <on-network-timeout-for-acknowledgement-of-required-members> element of the <list-service> element of the MCPTT group document indicates the timeout for acknowledgement of required group members specified in 3GPP TS 23.179 [4] in on-network procedures.

Value of the <on-network-action-upon-expiration-of-timeout-for-acknowledgement-of-required-members> element of the <list-service> element of the MCPTT group document indicates the action upon failure to receive acknowledgement from required group members before call timeout specified in 3GPP TS 23.179 [4] in on-network procedures.

Value of a <group-key-transport-payload> element of the <list-service> element of the MCPTT group document contains a group key transport payload as described in subclause 7.a, indicating:

- a) the GMK for protection of:
  - 1) media; and
  - 2) floor control signalling when the UE operates off the network; or
- b) the MKFC for protection of multicast floor control signalling when the UE operates on the network;

encrypted to the MCPTT ID of the MCPTT user accessing the MCPTT group document, according to 3GPP TS 33.179 [r33179], signed using the identity of the GMS.

If multiple <group-key-transport-payload> elements with the GMK are provided, then each <group-key-transport-payload> element with the GMK has a different activation time. If multiple <group-key-transport-payload> elements with the MKFC are provided, then each <group-key-transport-payload> element with the GMK has a different activation time.

If the user accessing the MCPTT group document does not have MCPTT ID, is not a member of the MCPTT group or the user accesses the MCPTT group document using HTTP, then the <group-key-transport-payload> element shall not be included in the <list-service> element of the MCPTT group document.

The possible values of the <protect-media> element are:

- a) "true" which indicates that a GMK is required to confidentiality and integrity protect media for on-network and off-network calls on the group. This value is used when the element is not present; and
- b) "false" which indicates that both confidentiality protection and integrity protection of media are not required for on-network and off-network calls on the group.

The possible values of the <protect-floor-control-signalling> element are:

- a) "true" which indicates that both confidentiality protection and integrity protection of floor control signalling are required for on-network and off-network calls on the group. This value is used when the element is not present; and
- b) "false" which indicates that both confidentiality protection and integrity protection of floor control signalling are not required for on-network and off-network calls on the group.

If the <protect-floor-control-signalling> element is set to "true" or when not present, then for on-network group calls:

- a) the presence of the <require-multicast-floor-control-signalling> element in the <list-service> element of the MCPTT group indicates that multicast bearers are used for floor controlling signalling for this group requiring that an MKFC is used to protect multicast floor control signalling;
- b) the absence of the <require-multicast-floor-control-signalling> element in the <list-service> element of the MCPTT group indicates that multicast bearers are not used for floor control signalling for this group requiring that no MKFC needs to be used to protect floor control signalling

NOTE 2: For on-network group calls, in the case that the <protect-floor-control-signalling> is "true" or not present, and the <require-multicast-floor-control-signalling> is not present, then floor control protection is provided by the CSK, which is generated by the client.

NOTE 3: For off-network group calls, a GMK is always used to protect floor control signalling.

The "uri" attribute of a <entry> element of the MCPTT group document:

- a) contains the MCPTT user identity, if the MCPTT group is not a temporary MCPTT group; and
- b) contains the MCPTT group identity of a constituent MCPTT group, if the MCPTT group is a temporary MCPTT group.

Presence of the <on-network-required> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member identified by the <entry> element is a required MCPTT group member in on-network procedures. Absence of the <on-network-required> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member identified by the <entry> element is not a required MCPTT group member in on-network procedures.

Value of the <user-priority> element in the <entry> element of the MCPTT group document indicates the user priority of the MCPTT group member identified by the <entry> element. Higher value indicates higher priority. Absence of the <user-priority> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member identified by the <entry> element has the lowest possible priority.

Value of the <off-network-user-info-id> element in the <entry> element of the MCPTT group document indicates the User Info Id specified in 3GPP TS 24.334 [7] assigned to the MCPTT group member identified by the <entry> element for usage in the off-network procedures specified in 3GPP TS 24.379 [5]. Absence of the <off-network-user-info-id> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member is not to participate in off-network procedures specified in 3GPP TS 24.379 [5].

Value of the <participant-type> element in the <entry> element of the MCPTT group document indicates the participant type specified in 3GPP TS 23.179 [4] assigned to the MCPTT group member identified by the <entry> element. Absence of the <participant-type> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member identified by the <entry> element is not assigned any participant type.

Presence of the <on-network-recvonly> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member identified by the <entry> element is not allowed to send media in MCPTT group calls of the MCPTT group in on-network procedures. Absence of the <on-network-recvonly> element in the <entry> element of the MCPTT group document indicates that the MCPTT group member identified by the <entry> element is allowed to send media in MCPTT group calls of the MCPTT group in on-network procedures.

The <allow-MCPTT-emergency-call> element of an <actions> element of a <rule> element of the MCPTT group document indicates whether the identity matching the rule identified by the <rule> element is allowed to request an MCPTT-emergency call on the MCPTT group. The possible values of the element are:

- a) "false" which indicates that the identity is not allowed to request an MCPTT-emergency call on the MCPTT group. This is the default value taken in the absence of the element.
- b) "true" which indicates that the identity is allowed to request an MCPTT-emergency call on the MCPTT group.

The <allow-imminent-peril-call> element of an <actions> element of a <rule> element of the MCPTT group document indicates whether the identity matching the rule identified by the <rule> element is allowed to request an imminent peril call on the MCPTT group. The possible values of the element are:

- a) "false" which indicates that the identity is not allowed to request an MCPTT-imminent peril call on the MCPTT group. This is the default value taken in the absence of the element.
- b) "true" which indicates that the identity is allowed to request an MCPTT imminent peril call on the MCPTT group.

The <allow-MCPTT-emergency-alert> element of an <actions> element of a <rule> element of the MCPTT group document indicates whether the identity matching the rule identified by the <rule> element is allowed to request an MCPTT-emergency alert on the MCPTT group. The possible values of the element are:

- a) "false" which indicates that the identity is not allowed to request an MCPTT-emergency alert on the MCPTT group. This is the default value taken in the absence of the element.
- b) "true" which indicates that the identity is allowed to request an MCPTT-emergency alert on the MCPTT group.

The <on-network-allow-getting-member-list> element of an <actions> element of a <rule> element of the MCPTT group document indicates whether the identity matching the rule identified by the <rule> element is allowed to get the MCPTT group member list of the MCPTT group in on-network procedures. The possible values of the element are:

- a) "false" which indicates that the identity is not allowed to get the MCPTT group member list of the MCPTT group in on-network procedures. This is the default value taken in the absence of the element.
- b) "true" which indicates that the identity is allowed to get the MCPTT group member list of the MCPTT group in on-network procedures.

The <on-network-allow-getting-affiliation-list> element of an <actions> element of a <rule> element of the MCPTT group document indicates whether the identity matching the rule identified by the <rule> element is allowed to get the list of MCPTT users affiliated to the MCPTT group in on-network procedures. The possible values of the element are:

- a) "false" which indicates that the identity is not allowed to get the list of MCPTT users affiliated to the MCPTT group in on-network procedures. This is the default value taken in the absence of the element.
- b) "true" which indicates that the identity is allowed to get the list of MCPTT users affiliated to the MCPTT group in on-network procedures.

The <on-network-allow-conference-state> element of an <actions> element of a <rule> element of the MCPTT group document indicates whether the identity matching the rule identified by the <rule> element is allowed to subscribe to the conference event package of an MCPTT group session of the MCPTT group in on-network procedures. The possible values of the element are:

- a) "false" which indicates that the identity is not allowed to subscribe to the conference event package of an MCPTT group session of the MCPTT group in on-network procedures. This is the default value taken in the absence of the element.
- b) "true" which indicates that the identity is allowed to subscribe to the conference event package of an MCPTT group session of the MCPTT group in on-network procedures.

<anyExt> element contains elements defined by future version of the present document.

## 7.2.9 Naming conventions

Naming conventions are described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Naming conventions*".

## 7.2.10 Global documents

### 7.2.10.1 General

Global documents are described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Global Documents*".

### 7.2.10.2 Group document addressed by a group ID

A group document addressed by a group ID is a group document:

- located in a subdirectory of the global tree, with the subdirectory name specified by the byGroupID-subdirectory ANBF rule of table 7.2.10.2-1; and
- with the document name set to the group ID.

**Table 7.2.10.2-1: ABNF syntax of directory name for group documents addressed by a group ID**

byGroupID-subdirectory = %x62.79.47.72.6f.75.70.49.44; "byGroupID"
--

## 7.2.11 Resource interdependencies

### 7.2.11.1 General

Resource interdependencies are described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Resource interdependencies*".

### 7.2.11.2 Group document addressed by a group ID

The following applies for a group document addressed by a group ID as described in subclause 7.2.10.2 where the group ID identifies a group defined in the GMS:

- a) a group document addressed by a group ID shall be associated with a group document in the users tree of a particular user which defines the group ID;
- b) a group document addressed by a group ID shall exist for each associated group document in the users tree;
- c) a group document addressed by a group ID shall have the same content as the associated group document in the users tree;
- d) GMS shall create a group document addressed by a group ID when the associated group document in the users tree is created;
- e) modification of a group document addressed by a group ID shall result in the same modification of the associated group document in the users tree; and
- f) removal of a group document addressed by a group ID shall result in removal of the associated group document in the users tree.

The following applies for a group document addressed by a group ID where the group ID identifies a group of another MCPTT provider:

- a) GMS forwards a XCAP request for management of a group document addressed by a group ID towards the other MCPTT provider.

## 7.2.12 Authorization policies

### 7.2.12.1 General

Authorization policies are described in the OMA OMA-TS-XDM\_Group-V1\_1 [3] "*Authorization policies*".

An MCPTT user is authorized to retrieve the <list> element of the <list-service> element of an existing MCPTT group only if the MCPTT group document contains a <rule> element:

- a) with the <conditions> element evaluating to true or without the <conditions> element; and
- b) with the <actions> element containing the <on-network-allow-getting-member-list> element.

None is authorized to insert, delete, and modify a <on-network-temporary> element of a <list-service> element of an existing MCPTT group document.

None is authorized to remove a group document containing a <on-network-regrouped> element of a <list-service> element of an MCPTT group document.

Only a GMS is allowed to add and remove a <on-network-regrouped> element in the <list-service> element of an existing MCPTT group document.

### 7.2.12.2 Group document addressed by a group ID

Authorizations for management of a group document addressed by a group ID as described in subclause 7.2.10.2 are the same authorizations for management of the associated group document in the users tree.

## 7.3 GMOP document

### 7.3.1 General

The GMOP document enables performing a group management operation which cannot be expressed by HTTP GET, HTTP PUT or HTTP DELETE methods.

### 7.3.2 MIME type

The MIME type of the GMOP document is application/g.3gpp.GMOP+xml.

### 7.3.3 XML schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema
  targetNamespace="urn:3gpp:ns:mcpttGMOP:1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mcpttgi="urn:3gpp:ns:mcpttGroupInfo:1.0"
  xmlns:gmop="urn:3gpp:ns:mcpttGMOP:1.0"
  xmlns="urn:oma:xml:poc:list-service"
  elementFormDefault="qualified" attributeFormDefault="unqualified">

  <xs:import namespace="urn:3gpp:ns:mcpttGroupInfo:1.0"/>
  <xs:import namespace="urn:oma:xml:poc:list-service"/>

  <!-- root element -->
  <xs:element name="document" type="gmop:documentType"/>

  <!-- complex type for document element -->
  <xs:complexType name="documentType">
    <xs:choice>
      <xs:element name="request" type="gmop:anyExtType"/>
      <xs:element name="response" type="gmop:anyExtType"/>
      <xs:element name="indication" type="gmop:anyExtType"/>
      <xs:element name="command" type="gmop:anyExtType"/>
    </xs:choice>
  </xs:complexType>

  <!-- GMOP requests -->
  <xs:element name="get-excluding-memberlist" type="gmop:emptyType"/>
  <xs:element name="group-regroup-creation" type="gmop:group-regroup-creationType"/>
  <xs:element name="group-regroup-check" type="gmop:group-regroup-checkType"/>
  <xs:element name="group-regroup-notification" type="gmop:group-regroup-notificationType"/>

  <!-- GMOP responses -->

  <!-- GMOP indications -->

  <!-- GMOP commands -->

  <!-- complex type for group-regroup-creation element -->
  <xs:complexType name="group-regroup-creationType">
    <xs:sequence>
      <xs:element ref="group"/>
      <xs:element name="anyExt" type="gmop:anyExtType" minOccurs="0"/>
      <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:anyAttribute namespace="##any" processContents="lax"/>
  </xs:complexType>

  <!-- complex type for group-regroup-check element -->
  <xs:complexType name="group-regroup-checkType">
    <xs:sequence>
      <xs:element ref="mcpttgi:on-network-regrouped"/>
      <xs:element name="anyExt" type="gmop:anyExtType" minOccurs="0"/>
      <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:anyAttribute namespace="##any" processContents="lax"/>
  </xs:complexType>

  <!-- complex type for group-regroup-notification element -->
  <xs:complexType name="group-regroup-notificationType">
```

```

<xs:sequence>
  <xs:element ref="mcpttgi:on-network-regrouped" />
  <xs:element name="anyExt" type="gmop:anyExtType" minOccurs="0" />
  <xs:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
<xs:anyAttribute namespace="##any" processContents="lax" />
</xs:complexType>

<!-- complex type for empty elements -->
<xs:complexType name="emptyType" />

<!-- complex type for elements containing any elements -->
<xs:complexType name="anyExtType">
  <xs:sequence>
    <xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
</xs:schema>

```

## 7.3.4 Structure

### 7.3.4.1 General

The GMOP document shall conform to the XML schema described in subclause 7.3.3.

The <document> element specified in subclause 7.3.3 shall be the root element of the GMOP document.

The <document> element specified in subclause 7.3.3 of the GMOP document shall include one of the following:

- a) a <request> element specified in subclause 7.3.3;
- b) a <response> element specified in subclause 7.3.3.
- c) a <command> element specified in subclause 7.3.3; or
- d) a <indication> element specified in subclause 7.3.3.

<anyExt> element contains elements defined by future version of the present document.

The GMOP document can contain unknown elements or unknown attributes. Unknown elements and unknown attributes are ignored.

**Table 7.2.2-2: Assignment of prefixes to namespace names in group documents**

Prefix	Namespace
rl	urn:ietf:params:xml:ns:resource-lists
cp	urn:ietf:params:xml:ns:common-policy
ocp	urn:oma:xml:xm:common-policy
oxe	urn:oma:xml:xm:extensions
mcpttgi	urn:3gpp:ns:mcpttGroupInfo:1.0
gmop	urn:3gpp:ns:mcpttGMOP:1.0
NOTE:	The "urn:oma:xml:poc:list-service" namespace is the default namespace so no prefix is used for it.

### 7.3.4.2 GMOP document requesting retrieval of a group document excluding group members

The GMOP document requesting retrieval of a group document excluding group members is a GMOP document according to subclause 7.3.3.1, where the <request> element includes a <get-excluding-memberlist> element specified in subclause 7.3.3.

#### 7.3.4.3 GMOP document requesting group regroup creation

The GMOP document requesting group regroup creation is a GMOP document according to subclause 7.3.3.1, where the <request> element includes a <group-regroup-creation> element specified in subclause 7.3.3.

The <group-regroup-check> element:

- a) shall include an <group> element specified in subclause 7.2.4; and
- b) may include an <anyExt> element specified in subclause 7.3.3.

#### 7.3.4.4 GMOP document requesting group regroup check

The GMOP document requesting group regroup check is a GMOP document according to subclause 7.3.3.1, where the <request> element includes a <group-regroup-check> element specified in subclause 7.3.3.

The <group-regroup-check> element:

- a) shall include an <on-network-regrouped> element specified in subclause 7.2.4; and
- b) may include an <anyExt> element specified in subclause 7.3.3.

#### 7.3.4.5 GMOP document requesting group regroup notification

The GMOP document requesting group regroup notification is a GMOP document according to subclause 7.3.3.1, where the <request> element includes a <group-regroup-notification> element specified in subclause 7.3.3.

The <group-regroup-notification> element:

- a) shall include an <on-network-regrouped> element specified in subclause 7.2.4; and
- c) may include an <anyExt> element specified in subclause 7.3.3.

---

## Annex A (informative): Signalling flows

### A.1 Scope of signalling flows

This annex gives examples of signalling flows for group document management on the extensible markup language configuration access protocol (XCAP) and the session initiation protocol (SIP).

HTTP header fields and SIP header fields insignificant for the group document management are omitted.

---

### A.2 Signalling flows for group creation

#### A.2.1 GMC creating a MCPTT group on behalf of MCPTT user served by the GMC

Figure A.2.1-1 shows a flow for a group management client GMC-1 creating an MCPTT group document in a group management server GMS-1. The GMC-1 serves user-1. The GMC-1 is configured with the group creation XUI configuration parameter set to sip:department1@example.com.

Document name of the MCPTT group document is groupdocument1.xml.

The MCPTT group is a pre-arranged MCPTT group, which is disabled for on-network procedures, with maximum of 10 participants, with on-network-group-priority of 5, and with display name "My conference display name".

The MCPTT group members are the user-1, a user-2 and a user-3. The user-1 and the user-2 are MCPTT group members required in on-network procedures.

The MCPTT user identity of the user-1 is sip:user1@example.com, the MCPTT user identity of the user-2 is sip:user2@example.com, and the MCPTT user identity of the user-3 is sip:user3@example.com. The MCPTT group document indicates a display name for each member.

The user-priority of the user-1 is 1, the user-priority of the user-2 is 2, and the user-priority of the user-3 is 3.

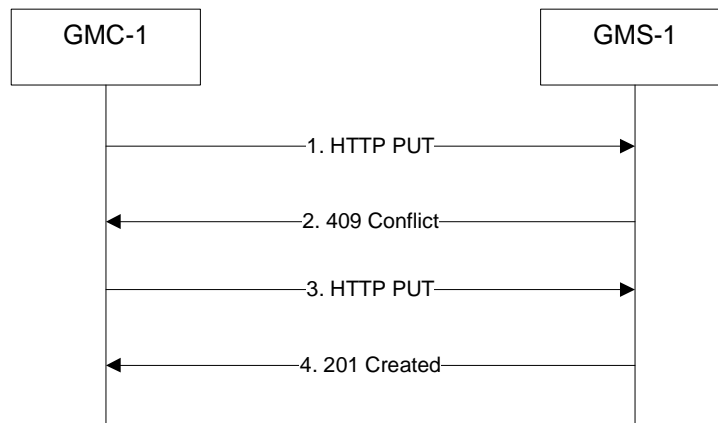
The XUI of the user-1 is the same as the MCPTT user identity of the user-1.

The members of the MCPTT group are allowed to initiate the MCPTT group session, are allowed to join the MCPTT group session, are allowed to request an MCPTT-emergency call on the MCPTT group, are allowed to request an imminent peril call on the MCPTT group and are allowed to request an MCPTT-emergency alert on the MCPTT group.

The GMC-1 proposes that the MCPTT group identity of the MCPTT group is sip:GMCproposedMCPTTGroupID@example.com, but the GMS-1 decides that the MCPTT group identity of the MCPTT group is sip:GMSdecidedMCPTTGroupID@example.com.

The hostname of GMS-1 is gms1.example.com.





**Figure A.2.1-1: GMC-1 creating a MCPTT group document in GMS-1 on behalf of user served by the GMC-1**

The details of the flows are as follows:

- 1) GMC-1 sends an HTTP PUT request shown in table A.2.1-1 to the GMS-1.

**Table A.2.1-1: first HTTP PUT request**

```

PUT /org.openmobilealliance.groups/users/sip:department1@example.com/groupdocument1.xml
HTTP/1.1
Host: gms1.example.com
Content-Type: application/vnd.oma.poc.groups+xml; charset="utf-8"

<?xml version="1.0" encoding="UTF-8"?>
<group
  xmlns="urn:oma:xml:poc:list-service"
  xmlns:rl="urn:ietf:params:xml:ns:resource-lists"
  xmlns:cp="urn:ietf:params:xml:ns:common-policy"
  xmlns:ocp="urn:oma:xml:xm:common-policy"
  xmlns:oxe="urn:oma:xml:xm:extensions"
  xmlns:mcpttgi="urn:3gpp:ns:mcpttGroupInfo:1.0"
  >
  <list-service uri="sip:GMCproposedMCPTTGroupID@example.com">
    <display-name xml:lang="en-us">My conference display name</display-name>
    <list>
      <entry uri="sip:user1@example.com">
        <rl:display-name>User 1</rl:display-name>
        <mcpttgi:on-network-required/>
        <mcpttgi:user-priority>1</mcpttgi:user-priority>
      </entry>
      <entry uri="sip:user2@example.com">
        <rl:display-name>User 2</rl:display-name>
        <mcpttgi:on-network-required/>
        <mcpttgi:user-priority>2</mcpttgi:user-priority>
      </entry>
      <entry uri="sip:user3@example.com">
        <rl:display-name>User 3</rl:display-name>
        <mcpttgi:user-priority>3</mcpttgi:user-priority>
      </entry>
    </list>
    <mcpttgi:on-network-invite-members>true</mcpttgi:on-network-invite-members>
    <mcpttgi:on-network-max-participant-count>10</mcpttgi:on-network-max-participant-count>
    <cp:ruleset>
      <cp:rule id="a7c">
        <cp:conditions>
          <is-list-member/>
        </cp:conditions>
        <cp:actions>
          <allow-initiate-conference>true</allow-initiate-conference>
          <join-handling>true</join-handling>
          <mcpttgi:allow-MCPTT-emergency-call>true</mcpttgi:allow-MCPTT-emergency-call>
          <mcpttgi:allow-imminent-peril-call>true</mcpttgi:allow-imminent-peril-call>
          <mcpttgi:allow-MCPTT-emergency-alert>true</mcpttgi:allow-MCPTT-emergency-alert>
        </cp:actions>
      </cp:rule>
    </cp:ruleset>
    <oxe:supported-services>
  
```

```

<oxe:service enabler="urn:urn-7:3gpp-service.ims.icsi.mcptt">
  <oxe:group-media>
    <mcpttgi:mcptt-speech/>
  </oxe:group-media>
</oxe:service>
</oxe:supported-services>
<mcpttgi:disabled/>
<mcpttgi:on-network-group-priority>5</mcpttgi:on-network-group-priority>
</list-service>
</group>

```

- 2) GMS-1 rejects the HTTP PUT request with HTTP 409 (Conflict) response shown in table A.2.1-2.

**Table A.2.1-2: HTTP 409 (Conflict) response to HTTP PUT request**

```

HTTP/1.1 409 Conflict
Content-Type: application/xcap-error+xml; charset="utf-8"

<?xml version="1.0" encoding="UTF-8"?>
<xcap-error xmlns="urn:ietf:params:xml:ns:xcap-error">
  <uniqueness-failure phrase="URI constraint violated">
    <exists field="group/list-service/@uri">
      <alt-value>sip:GMSdecidedMCPTTGroupID@example.com</alt-value>
    </exists>
  </uniqueness-failure>
</xcap-error>

```

- 3) GMC-1 sends an HTTP PUT request to the GMS-1. The HTTP PUT request is the same as shown in table A.2.1-3 with exception of the value of the "uri" attribute of the <list-service> element of the <group> root element. The "uri" attribute contains sip:correctMCPTTGroupID@example.com.
- 4) GMS-1 creates the MCPTT group document so that it is accessible using the XCAP URIs <http://gms1.example.com/org.openmobilealliance.groups/users/sip:department1@example.com/groupdocument1.xml> and <http://gms1.example.com/org.openmobilealliance.groups/global/byGroupID/sip:GMSdecidedMCPTTGroupID@example.com>.

GMS-1 accepts the HTTP PUT request with HTTP 201 (Created) response.

---

## Annex B (informative): IANA registration templates

### B.1 IANA registration templates for MIME types

#### B.1.1 application/g.3gpp.GMOP+xml IANA registration template

Editor's note [WI: MCPTT-CT, CR 0013]: The MIME type is to be registered in the IANA registry for Application Media Types based upon the following template. The registration is to be started when work on the MCPTT-CT WID completes.

Your Name:

<MCC name>

Your Email Address:

<MCC email address>

Media Type Name:

Application

Subtype name:

application/g.3gpp.GMOP+xml

Required parameters:

None

Optional parameters:

"charset" the parameter has identical semantics to the charset parameter of the "application/xml" media type as specified in section 9.1 of IETF RFC 7303.

Encoding considerations:

binary.

Security considerations:

Same as general security considerations for application/xml media type as specified in section 9.1 of IETF RFC 7303.

The information transported in this media type does not include active or executable content.

Mechanisms for privacy and integrity protection of protocol parameters exist.

This media type does not include provisions for directives that institute actions on a recipient's files or other resources.

This media type does not include provisions for directives that institute actions that, while not directly harmful to the recipient, may result in disclosure of information that either facilitates a subsequent attack or else violates a recipient's privacy in any way.

This media type does not employ compression.

Interoperability considerations:

Same as general interoperability considerations for application/xml media type as specified in section 9.1 of IETF RFC 7303. Any unknown XML elements and any unknown XML attributes are to be ignored by recipient of the MIME body.

Published specification:

3GPP TS 24.381 "Mission Critical Push To Talk (MCPTT) group management; Protocol specification" version 13.1.0, available via <http://www.3gpp.org/specs/numbering.htm>.

Applications which use this media type:

Applications supporting the Mission Critical Push To Talk (MCPTT) group management as described in the published specification.

Fragment identifier considerations:

The handling in section 5 of IETF RFC 7303 applies.

Restrictions on usage:

None

Provisional registration? (standards tree only):

N/A

Additional information:

1. Deprecated alias names for this type: none
2. Magic number(s): none
3. File extension(s): none
4. Macintosh File Type Code(s): none
5. Object Identifier(s) or OID(s): none

Intended usage:

Common

Person to contact for further information:

- Name: <MCC name>
- Email: <MCC email address>
- Author/Change controller:
  - i) Author: 3GPP CT1 Working Group/3GPP\_TSG\_CT\_WG1@LIST.ETSI.ORG
  - ii) Change controller: <MCC name>/<MCC email address>

## Annex C (informative): Change history

Change history								
Date	TSG #	TSG doc	WG Doc.	CR	Rev	Subject/Comment	Old	New
2015-07						Initial proposal to CT1#92-bis	-	0.0.0
2015-07						Contains agreed P-CRs from CT1#92-bis: C1ah-150043, C1ah-150004, C1ah-150044	0.0.0	0.1.0
2015-08						Contains agreed P-CRs from CT1#93: C1-153181, C1-153182 and changes by rapporteur.	0.1.0	0.2.0
2015-08						minor fixes from the rapporteur	0.2.0	0.2.1
2015-09						specification numbers decided by CT#69 are indicated by the rapporteur	0.2.1	0.2.2
2015-10						Contains agreed P-CRs from CT1#94: C1-153717, C1-153745, C1-153753.	0.2.2	0.3.0
2015-11						Contains agreed P-CRs from CT1#95: C1-154409, C1-154593, C1-154594. Editorial fixes done and abbreviations added by the rapporteur.	0.3.0	0.4.0
2015-12	CT-70	CP-150735				Version 1.0.0 created for presentation for information	0.4.0	1.0.0
2016-01						Contains agreed P-CRs from CT1#95-BIS: C1-160018, C1-160019, C1-160020, C1-160021, C1-160023, C1-160026, C1-160030, C1-160031, C1-160032, C1-160033, C1-160367, C1-160369, C1-160467, C1-160468, C1-160469, C1-160470. Subclause renumbering and editorial fixes done by the rapporteur.	1.0.0	1.1.0
2016-02						Contains agreed P-CRs from CT1-on MCPTT and CT1#96: C1ah-160040, C1ah-160086, C1ah-160093, C1ah-160104, C1-161328, C1-161373, C1-161382, C1-161397, C1-161398, C1-161399. Subclause renumbering and editorial fixes done by the rapporteur.	1.1.0	1.2.0
2016-03	CT-71	CP-160061				Version 2.0.0 created for presentation for approval	1.2.0	2.0.0
2016-03	CT-71					Version 13.0.0 created after approval	2.0.0	13.0.0
2016-03						Editorial fixes - removal of superfluous spaces and addition of "(GC)", "(GMC)" and "(GMS)" when missing.	13.0.0	13.0.1
2016-06	CT-72	CP-160322	C1-161736	0007	-	Correction for semantic and values of group-priority and user-priority	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162061	0001	1	Corrections for internal inconsistencies in the document	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162375	0010	-	Correction for "the present document"	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162399	0002	2	Corrections for managing group documents based on group ID	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162590	0014	-	Add validations for <on-network-maximum-duration>	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162841	0004	3	Correction for missing MCPTT group properties	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162843	0012	1	Corrections for group document excluding group members retrieval procedure	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162845	0015	1	Corrections for security	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-162846	0009	2	Adding security configuration to the group document	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-163047	0003	4	Corrections in the temporary MCPTT group formation procedure and the temporary MCPTT group tear down procedure	13.0.1	13.1.0
2016-06	CT-72	CP-160322	C1-163049	0013	2	Corrections for group management operations which cannot be expressed by HTTP GET, HTTP PUT or HTTP DELETE methods	13.0.1	13.1.0

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# History

<b>Document history</b>		
V13.0.1	May 2016	Publication
V13.1.0	July 2016	Publication