**3GPP TSG-CT WG1 Meeting #123-eC1-202qwe**

**Electronic meeting, 16-24 April 2020** (was C1-202569)

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.484** | **CR** | **0139** | **rev** | **1** | **Current version:** | **16.5.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Update service configuration to support limiting the number of authorized clients per MCPTT user  |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell  |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | MONASTERY2 |  | ***Date:*** | 2020-03-21 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-16 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | Stage 2 specs 3GPP TS 23.379 indicate that the allowed number of successful simultaneous authorizations for clients used by an MCPTT user should be limited. |
|  |  |
| ***Summary of change:*** | 1)Introduction of the new limit element. 2)Updated XML schema and semantics accordingly. |
|  |  |
| ***Consequences if not approved:*** | Stage 2 requirement on limiting the allowed number of successful simultaneous authorizations for clients used by an MCPTT user is not supported |
|  |  |
| ***Clauses affected:*** | 8.4.2.1, 8.4.2.3, 8.4.2.7 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

#### 8.4.2.1 Structure

The service configuration document structure is specified in this subclause.

The <service configuration> document:

1) shall include a "domain" attribute;

2) may include a <common> element;

3) may include an <on-network> element;

4) may include an <off-network> element; and

5) may include any other attribute for the purposes of extensibility.

The <common> element:

1) may include a <min-length-alias> element;

2) may contain a <broadcast-group> element containing:

a) a <num-levels-group-hierarchy> element; and

b) a <num-levels-user-hierarchy> element;

The <on-network> element:

1) may contain a <emergency-call> element containing:

a) a <private-cancel-timeout> element; and

b) a <group-time-limit> element.

2) may contain a <private-call> element containing:

a) a <hang-time> element;

b) a <max-duration-with-floor-control> element; and

c) a <max-duration-without-floor-control> element;

3) may contain a <num-levels-hierarchy> element;

4) may contain a <transmit-time> element containing:

a) a <time-limit> element; and

b) a <time-warning> element;

5) may contain a <hang-time-warning> element;

6) may contain a <floor-control-queue> element containing:

a) a <depth> element; and

b) a <max-user-request-time> element; and

7) shall contain a <fc-timers-counters> element containing:

a) a <T1-end-of-rtp-media> element;

b) a <T3-stop-talking-grace> element;

c) a <T7-floor-idle> element;

d) a <T8-floor-revoke> element;

e) a <T11-end-of-RTP-dual> element;

f) a <T12-stop-talking-dual> element;

g) a <T15-conversation> element;

h) a <T16-map-group-to-bearer> element;

i) a <T17-unmap-group-to-bearer> element;

j) a <T20-floor-granted> element;

k) a <T55-connect> element;

l) a<T56-disconnect> element;

m) a <C7-floor-idle> element;

n) a <C17-unmap-group-to-bearer> element;

o) a <C20-floor-granted> element;

p) a <C55-connect> element; and

q) a <C56-disconnect> element;

8) may contain a <signalling-protection> element containing:

a) a <confidentiality-protection> element; and

b) an <integrity-protection> element;

9) shall include one <emergency-resource-priority> element containing:

a) one <resource-priority-namespace> string element containing a namespace defined in IETF RFC 8101 [20]; and

b) one <resource-priority-priority> string element element containing a priority level in the range specified in IETF RFC 8101 [20];

10) shall include one <imminent-peril-resource-priority> element containing:

a) one <resource-priority-namespace> string element containing a namespace defined in IETF RFC 8101 [20]; and

b) one <resource-priority-priority> string element element containing a priority level in the range specified in IETF RFC 8101 [20];

11) shall include one <normal-resource-priority> element containing:

a) one <resource-priority-namespace> string element containing a namespace defined in IETF RFC 8101 [20]; and

b) one <resource-priority-priority> string element element containing a priority level in the range specified in IETF RFC 8101 [20]; and

12) may contain a <protection-between-mcptt-servers> element containing:

a) an <allow-signalling-protection> element; and

b) an <allow-floor-control-protection> element; and

13) may contain an <anyExt> element containing:

a) a <functional-alias-list> element containing:

i) a <functional-alias> element;

ii) a <max-simultaneous-activations> element;

iii) an <allow-takeover> element;

iv) mcptt-user-list; and

v) may contain an <anyExt> element containing a <functional-alias-priority> element. and

b) a <max-simultaneous-authorizations> element.

The <off-network> element:

1) may contain a <emergency-call> element containing:

a) a <private-cancel-timeout> element; and

b) a <group-time-limit> element.

2) may contain a <private-call> element containing:

a) a <hang-time> element; and

b) a <max-duration-with-floor-control> element;

3) may contain a <num-levels-hierarchy> element;

4) may contain a <transmit-time> element containing:

a) a <time-limit> element; and

b) a <time-warning> element.

5) may contain a <hang-time-warning> element;

6) may contain a <default-prose-per-packet-priority> element; and

7) may contain a <allow-log-metadata> element.

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

#### 8.4.2.3 XML Schema

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

<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"

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

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

xmlns:mcpttsc="urn:3gpp:ns:mcpttServiceConfig:1.0">

<xs:import namespace="http://www.w3.org/XML/1998/namespace"

schemaLocation="http://www.w3.org/2001/xml.xsd"/>

<!-- the root element -->

 <xs:element name="service-configuration-info" type="mcpttsc:service-configuration-info-Type"/>

<!-- the root type -->

<!-- this is refined with one or more sub-types -->

 <xs:complexType name="service-configuration-info-Type">

 <xs:sequence>

 <xs:element name="service-configuration-params" type="mcpttsc:service-configuration-params-Type" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

<!-- definition of the service-configuration-params-Type subtype-->

 <xs:complexType name="service-configuration-params-Type">

 <xs:sequence>

 <xs:element name="common" type="mcpttsc:commonType" minOccurs="0" maxOccurs="unbounded"/>

 <xs:element name="on-network" type="mcpttsc:on-networkType" minOccurs="0" maxOccurs="unbounded"/>

 <xs:element name="off-network" type="mcpttsc:off-networkType" minOccurs="0" maxOccurs="unbounded"/>

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

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

 </xs:sequence>

 <xs:attribute name="domain" type="xs:anyURI" use="required"/>

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

 </xs:complexType>

 <xs:complexType name="commonType">

 <xs:sequence>

 <xs:element name="min-length-alias" type="xs:unsignedShort" minOccurs="0"/>

 <xs:element name="broadcast-group" type="mcpttsc:broadcast-groupType" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="on-networkType">

 <xs:sequence>

 <xs:element name="emergency-call" type="mcpttsc:emergency-callType" minOccurs="0"/>

 <xs:element name="private-call" type="mcpttsc:private-callType" minOccurs="0"/>

 <xs:element name="num-levels-priority-hierarchy" type="mcpttsc:priorityhierarchyType" minOccurs="0"/>

 <xs:element name="transmit-time" type="mcpttsc:transmit-timeType" minOccurs="0"/>

 <xs:element name="hang-time-warning" type="xs:duration" minOccurs="0"/>

 <xs:element name="floor-control-queue" type="mcpttsc:floor-control-queueType" minOccurs="0"/>

 <xs:element name="fc-timers-counters" type="mcpttsc:fc-timers-countersType"/>

 <xs:element name="signalling-protection" type="mcpttsc:signalling-protectionType" minOccurs="0"/>

 <xs:element name="protection-between-mcptt-servers" type="mcpttsc:server-protectionType" minOccurs="0"/>

 <xs:element name="emergency-resource-priority" type="mcpttsc:resource-priorityType"/>

 <xs:element name="imminent-peril-resource-priority" type="mcpttsc:resource-priorityType"/>

 <xs:element name="normal-resource-priority" type="mcpttsc:resource-priorityType"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="off-networkType">

 <xs:sequence>

 <xs:element name="emergency-call" type="mcpttsc:emergency-callType" minOccurs="0"/>

 <xs:element name="private-call" type="mcpttsc:private-callType" minOccurs="0"/>

 <xs:element name="num-levels-priority-hierarchy" type="mcpttsc:priorityhierarchyType" minOccurs="0"/>

 <xs:element name="transmit-time" type="mcpttsc:transmit-timeType" minOccurs="0"/>

 <xs:element name="hang-time-warning" type="xs:duration" minOccurs="0"/>

 <xs:element name="default-prose-per-packet-priority" type="mcpttsc:default-prose-per-packet-priorityType" minOccurs="0"/>

 <xs:element name="allow-log-metadata" type="xs:boolean" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="private-callType">

 <xs:sequence>

 <xs:element name="hang-time" type="xs:duration" minOccurs="0"/>

 <xs:element name="max-duration-with-floor-control" type="xs:duration" minOccurs="0"/>

 <xs:element name="max-duration-without-floor-control" type="xs:duration" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="broadcast-groupType">

 <xs:sequence>

 <xs:element name="num-levels-group-hierarchy" type="xs:unsignedShort" minOccurs="0"/>

 <xs:element name="num-levels-user-hierarchy" type="xs:unsignedShort" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="fc-timers-countersType">

 <xs:sequence>

 <xs:element name="T1-end-of-rtp-media" type="xs:duration"/>

 <xs:element name="T3-stop-talking-grace" type="xs:duration"/>

 <xs:element name="T7-floor-idle" type="xs:duration"/>

 <xs:element name="T8-floor-revoke" type="xs:duration"/>

 <xs:element name="T11-end-of-RTP-dual" type="xs:duration"/>

 <xs:element name="T12-stop-talking-dual" type="xs:duration"/>

 <xs:element name="T15-conversation" type="xs:duration"/>

 <xs:element name="T16-map-group-to-bearer" type="xs:duration"/>

 <xs:element name="T17-unmap-group-to-bearer" type="xs:duration"/>

 <xs:element name="T20-floor-granted" type="xs:duration"/>

 <xs:element name="T55-connect" type="xs:duration"/>

 <xs:element name="T56-disconnect" type="xs:duration"/>

 <xs:element name="C7-floor-idle" type="xs:unsignedShort"/>

 <xs:element name="C17-unmap-group-to-bearer" type="xs:unsignedShort"/>

 <xs:element name="C20-floor-granted" type="xs:unsignedShort"/>

 <xs:element name="C55-connect" type="xs:unsignedShort"/>

 <xs:element name="C56-disconnect" type="xs:unsignedShort"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="emergency-callType">

 <xs:sequence>

 <xs:element name="private-cancel-timeout" type="xs:duration" minOccurs="0"/>

 <xs:element name="group-time-limit" type="xs:duration" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="transmit-timeType">

 <xs:sequence>

 <xs:element name="time-limit" type="xs:duration" minOccurs="0"/>

 <xs:element name="time-warning" type="xs:duration" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="floor-control-queueType">

 <xs:sequence>

 <xs:element name="depth" type="xs:unsignedShort" minOccurs="0"/>

 <xs:element name="max-user-request-time" type="xs:duration" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="default-prose-per-packet-priorityType">

 <xs:sequence>

 <xs:element name="mcptt-private-call-signalling" type="xs:unsignedShort" minOccurs="0"/>

 <xs:element name="mcptt-private-call-media" type="xs:unsignedShort" minOccurs="0"/>

 <xs:element name="mcptt-emergency-private-call-signalling" type="xs:unsignedShort" minOccurs="0"/>

 <xs:element name="mcptt-emergency-private-call-media" type="xs:unsignedShort" minOccurs="0"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="signalling-protectionType">

 <xs:sequence>

 <xs:element name="confidentiality-protection" type="xs:boolean" minOccurs="0" default="true"/>

 <xs:element name="integrity-protection" type="xs:boolean" minOccurs="0" default="true"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="server-protectionType">

 <xs:sequence>

 <xs:element name="allow-signalling-protection" type="xs:boolean" minOccurs="0" default="true"/>

 <xs:element name="allow-floor-control-protection" type="xs:boolean" minOccurs="0" default="true"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:complexType name="resource-priorityType">

 <xs:sequence>

 <xs:element name="resource-priority-namespace" type="xs:string"/>

 <xs:element name="resource-priority-priority" type="xs:string"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <!-- simple type for priority element -->

 <xs:simpleType name="priorityhierarchyType">

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

 <xs:minInclusive value="4"/>

 <xs:maxInclusive value="256"/>

 </xs:restriction>

 </xs:simpleType>

 <xs:element name="functional-alias-list" type="mcpttsc:functional-aliasType"/>

 <xs:complexType name="functional-aliasType">

 <xs:sequence>

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

 <xs:element name="max-simultaneous-activations" type="xs:positiveInteger"/>

 <xs:element name="allow-takeover" type="xs:boolean"/>

 <xs:element name="mcptt-user-list" type="mcpttsc:ListEntryType"/>

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

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

 </xs:sequence>

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

 </xs:complexType>

 <xs:element name="functional-alias-priority" type="xs:positiveInteger"/>

 <xs:element name="max-simultaneous-authorizations" type="xs:positiveInteger"/>

 <xs:complexType name="ListEntryType">

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

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

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

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

 </xs:choice>

 <xs:attribute ref="xml:lang"/>

 <xs:attributeGroup ref="mcpttsc:IndexType"/>

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

 </xs:complexType>

 <xs:complexType name="EntryType">

 <xs:sequence>

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

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

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

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

 </xs:sequence>

 <xs:attributeGroup ref="mcpttsc:IndexType"/>

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

 </xs:complexType>

 <xs:attributeGroup name="IndexType">

 <xs:attribute name="index" type="xs:token"/>

 </xs:attributeGroup>

 <xs:complexType name="DisplayNameElementType">

 <xs:simpleContent>

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

 <xs:attribute ref="xml:lang"/>

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

 </xs:extension>

 </xs:simpleContent>

 </xs:complexType>

 <xs:complexType name="anyExtType">

 <xs:sequence>

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

 </xs:sequence>

 </xs:complexType>

</xs:schema>

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

#### 8.4.2.7 Data Semantics

The "domain" attribute of the <service-configuration-params> element contains the domain name of the mission critical organization.

The <common> element contains service configuration data common to both on and off network service.

The <on-network> element contains service configuration data for on-network service only.

The <off-network> element contains service configuration data for off-network service only.

In the <common> element:

1) the <min-length-alias> element contains the minimum length (N3) of alphanumeric names assigned to MCPTT users by the MCPTT administrator, which corresponds to the "MinLengthAliasID" element as specified in subclause 7.2.9 of 3GPP TS 24.483 [4];

2) the <num-levels-group-hierarchy> element of the <broadcast-group> element contains an integer indicating the number levels of group hierarchy for group-broadcast groups, which corresponds to the "NumLevelGroupHierarchy" element as specified in subclause 7.2.7 of 3GPP TS 24.483 [4]; and

3) the <num-levels-user-hierarchy> element of the <broadcast-group> element contains an integer indicating the number levels of user hierarchy for user-broadcast groups, which corresponds to the "NumLevelUserHierarchy" element as specified in subclause 7.2.8 of 3GPP TS 24.483 [4];

In the <on-network> element:

1) the <private-cancel-timeout> element of the <emergency-call> element contains the timeout value for the cancellation of an in-progress on-network emergency private call;

2) the <group-time-limit> element of the <emergency-call> element contains the time limit for an in-progress on-network emergency call on an MCPTT group;

3) the <hang-time> element of the <private-call> element contains the value of the hang timer for on-network private calls;

NOTE 1: The hang time is a configurable maximum length of the inactivity (silence) period between consecutive MCPTT transmissions within the same call.

4) the <max-duration-with-floor-control> element of the <private-call> element contains the maximum duration allowed for an on-network private call with floor control;

5) the <max-duration-without-floor-control > element of the <private-call> element contains the maximum duration allowed for an on-network private call without floor control;

6) the <num-levels-priority-hierarchy> element contains a priority hierarchy for determining what participants, participant types, and urgent transmission types shall be granted a request to override an active on-network MCPTT transmission. Absence of the <num-levels-priority-hierarchy> element in the <on-network> element indicates that the lowest possible value is used according to the schema, to represent the priority hierarchy;

NOTE 2: The higher the value from the priority hierarchy assigned to a participant, the higher the priority given to override an active transmission.

7) the <time-limit> element of the <transmit-time> element contains the transmit time limit in an on-network group or private call transmission;

8) the <time-warning> element of the <transmit-time> element contains the warning time before the on-network transmit time is reached;

9) the <hang-time-warning> element contains the warning time before the on-network hang time is reached;

10) the <depth> element of the <floor-control-queue> element contains the maximum size of the floor control queue;

11) the <max-user-request-time> element of the <floor-control-queue> element contains the maximum time for a user's floor control request to be queued;

12) the <T1-end-of-rtp-media> element of the <fc-timers-counters> element contains the maximum allowed time between RTP media packets;

13) the <T3-stop-talking-grace> element of the <fc-timers-counters> element contains the maximum time the floor control server shall forward RTP media packets after that the permission to send RTP media is revoked;

14) the <T7-floor-idle> element of the <fc-timers-counters> element contains the retransmission interval of the Floor Idle message when the floor is idle. The maximum number of times the Floor Idle is retransmitted is controlled by the counter in the <C7-floor-idle> element;

15) the <T8-floor-revoke> element of the <fc-timers-counters> element contains the retransmission interval time of the Floor Revoke message until the Floor Release message is received;

16) the <T11-end-of-RTP-dual> element of the <fc-timers-counters> element contains the maximum allowed time between RTP media packets for the interrupting participant during dual floor operations;

17) the <T12-stop-talking-dual> element of the <fc-timers-counters> element contains the transmit time limit in an on-network group for the interrupting participant during dual floor operations;

18) the <T15-conversation> element of the <fc-timers-counters> element contains the maximum allowed time of silence in a group session involving an MBMS bearer before the MBMS subchannel shall be released;

19) the <T16-map-group-to-bearer> element of the <fc-timers-counters> element contains the retransmission interval of the Map Group To Bearer message;

20) the <T17-unmap-group-to-bearer> element of the <fc-timers-counters> element contains the retransmission interval of the Unmap Group To Bearer message;

21) the <T20-floor-granted> element of the <fc-timers-counters> element contains the time the floor control server shall wait before retransmitting the Floor Granted message until the Floor Request message is received. The number of times the Floor Granted message shall be sent is controlled by the counter in <C20-floor-granted> element;

22) the <T55-connect> element of the <fc-timers-counters> element contains the retransmission interval of the Connect message. The number of times the Connect message is retransmitted is controlled by the counter in <C56-disconnect> element;

23) the <T56-disconnect> element of the <fc-timers-counters> element contains the retransmission interval of the Disconnect message. The number of times the Disconnect message is retransmitted is controlled by the counter in <C55-connect> element;

24) the <C7-floor-idle> element of the <fc-timers-counters> element contains the maximum number of times the Floor Idle shall be sent;

25) the <C17-unmap-group-to-bearer> element of the <fc-timers-counters> element contains the retransmission interval of the Unmap Group To Bearer message;

26) the <C20-floor-granted> element of the <fc-timers-counters> element contains the maximum times the Floor Granted message shall be retransmitted.

27) the <C55-connect> element of the <fc-timers-counters> element contains the maximum number of times the Connect message is retransmitted;

28) the <C56-disconnect> element of the <fc-timers-counters> element contains the maximum number of times the Disconnect message is retransmitted;

29) the <confidentiality-protection> element of the <signalling-protection> element contains a boolean indicating whether confidentiality protection of MCPTT signalling is enabled or disabled between the MCPTT client and MCPTT server;

30) the <integrity-protection> element of the <signalling-protection> element contains a boolean indicating whether integrity protection of MCPTT signalling is enabled or disabled between the MCPTT client and MCPTT server;

31) The <emergency-resource-priority> element is of type "resource-priorityType" and indicates how a Resource-Priority header field is to be populated for MCPTT emergency calls;

32) The <imminent-peril-resource-priority> element is of type "resource-priorityType" and indicates how a Resource-Priority header field is to be populated for MCPTT Imminent Peril calls;

33) The <normal-resource-priority> element is of type "resource-priorityType" and indicates how a Resource-Priority header field is to be populated when downgrading to normal priority from an MCPTT emergency call or MCPTT imminent peril call;

34) the <allow-signalling-protection> element of the <protection-between-mcptt-servers> element contains a boolean indicating whether protection of MCPTT signalling is enabled between MCPTT servers; and

35) the <allow-floor-control-protection> element of the <protection-between-mcptt-servers> element contains a boolean indicating whether protection of MCPTT floor control signalling is enabled between MCPTT servers;

36) the <functional-alias> element of the <functional-alias-list> element is of type "anyURI" and contains the identity of a functional alias;

37) the <max-simultaneous-activations> element of the <functional-alias-list> element is of type "positiveInteger" and contains the allowed number of concurrent activations that are allowed for the functional alias contained in the corresponding <functional-alias> element;

38) the <allow-takeover> element of the <functional-alias-list> element is of type "boolean" and indicates whether take over by another MCPTT user is allowed for a currently activated functional alias contained in the corresponding <functional-alias> element;

39) the <entry> element of the <mcptt-user-list> element of the <functional-alias-list> element is of type "entryType" and contains the MCPTT ID of an MCPTT user that is allowed to activate the functional alias contained in the corresponding <functional-alias> element;

40) the <functional-alias-priority> element of the <functional-alias-list> element is of type "positiveInteger" and indicates the relative priority level of the functional alias contained in the corresponding <functional-alias> element; and

41) the <max-simultaneous-authorizations> element of the <anyExt> element is of type "positiveInteger" and indicates the maximum allowed number of simultaneous service authorizations for an MCPTT user.

NOTE 3: The usage of this parameter by the MCPTT server is up to implementation.

NOTE 4: The default values of the <confidentiality-protection> element, the <integrity-protection> element, the <allow-signalling-protection> element and the <allow-floor-control-protection> element are "true".

In the <off-network> element:

1) the <private-cancel-timeout> element of the <emergency-call> element contains the timeout value for the cancellation of an in-progress off-network emergency private call, which corresponds to the "CancelTimeout" element as specified in subclause 7.2.14 of 3GPP TS 24.483 [4];

2) the <group-time-limit> element of the <emergency-call> element contains the time limit for an in-progress off-network emergency call on an MCPTT group, which corresponds to the "MCPTTGroupTimeout" element as specified in subclause 7.2.16 of 3GPP TS 24.483 [4];

3) the <hang-time> element of the <private-call> element contains the value of the hang timer for off-network private calls, which corresponds to the "HangTime" element as specified in subclause 7.2.13 of 3GPP TS 24.483 [4];

4) the <max-duration-with-floor-control> element of the <private-call> element contains the maximum duration allowed for an off-network private call with floor control, which and corresponds to the "MaxDuration" element as specified in subclause 7.2.12 of 3GPP TS 24.483 [4];

5) the <num-levels-priority-hierarchy> element contains a priority hierarchy for determining what participants, participant types, and urgent transmission types shall be granted a request to override an active off-network MCPTT transmission, which corresponds to the "NumLevelHierarchy" element as specified in subclause 7.2.17 of 3GPP TS 24.483 [4]. Absence of the <num-levels-priority-hierarchy> element in the <off-network> element indicates that the lowest possible value is used according to the schema to represent the priority hierarchy;

NOTE 4: The higher the value from the priority hierarchy assigned to a participant, the higher the priority given to override an active transmission;

6) the <time-limit> element of the <transmit-time> element contains the transmit time limit in an off-network group or private call transmission, which corresponds to the "TransmitTimeout" element as specified in subclause 7.2.18 of 3GPP TS 24.483 [4];

7) the <time-warning> element of the <transmit-time> element contains the warning time before the off-network transmit time is reached, which corresponds to the "TransmissionWarning" element as specified in subclause 7.2.19 of 3GPP TS 24.483 [4];

8) the <hang-time-warning> element contains the warning time before the off-network hang time is reached, which corresponds to the "HangTimeWarning" element as specified in subclause 7.2.20 of 3GPP TS 24.483 [4];

9) the <default-prose-per-packet-priority> element contains priority values for off-network calls, for each of the following constituent elements:

a) mcptt private call signalling which corresponds to the "MCPTTPrivateCallSignalling" element as specified in subclause 7.2.22 of 3GPP TS 24.483 [4];

b) mcptt private call media which corresponds to the "MCPTTPrivateCallMedia" element as specified in subclause 7.2.23 of 3GPP TS 24.483 [4];

c) mcptt emergency private call signalling which corresponds to the "MCPTTEmergencyPrivateCallSignalling" element as specified in subclause 7.2.24 of 3GPP TS 24.483 [4]; and

d) mcptt emergency private call media which corresponds to the "MCPTTEmergencyPrivateCallMedia" element as specified in subclause 7.2.25 of 3GPP TS 24.483 [4]; and

10) the <allow-log-metadata> element which corresponds to the "LogMetadata" element as specified in subclause 7.2.26 of 3GPP TS 24.483 [4] and contains one of the following values:

a) "true" which indicates that logging of metadata for MCPTT group calls, MCPTT private calls and non-call activities from MCPTT UEs operating in off-network mode, is enabled; and

b) "false" which indicates that logging of metadata for MCPTT group calls, MCPTT private calls and non-call activities from MCPTT UEs operating in off-network mode, is not enabled.