**3GPP TSG-CT1 Meeting #137-e *C1-225048***

**Online, , 18th Aug 2022 - 26th Aug 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.379** | **CR** | **0836** | **rev** | 1 | **Current version:** | **17.7.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Plugtest FA take-over clarification | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MCProtoc17 | | | | |  | ***Date:*** | | | 2022-08-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Plugtest report of the 6th ETSI MCX Plugtests  Hybrid Event have indicated that specs are unclear on where exactly the take-over element is placed when a client performs a Functional Alias (FA) take-over leading to different implementations (see 10.1.8 Position of take-over indication in FA Presence XML). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1)Clarification on how the client gets to know whether it can take-over an FA.  2) Clarification on how the client indicates take-over request.  3) Add missing references to the configuration parameters used for take-over  4)Typo fixes | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Take-over may not be supported if the client and server implementation expect the take-over in different parts of the request. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1, 9A.2.1.2, 9A.2.1.3, 9A.2.2.3.3, 9A.3.1.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

1st change

## 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].

**An MCPTT user is affiliated to an MCPTT group**: The MCPTT user has expressed interest in an MCPTT group it is a member of, and both the MCPTT server serving the MCPTT user and the MCPTT server owning the MCPTT group have authorized the MCPTT user's interest in the MCPTT group communication.

**An MCPTT user is affiliated to an MCPTT group at an MCPTT client**: The MCPTT user is affiliated to the MCPTT group, the MCPTT client has a registered IP address for an IMPU related to the MCPTT ID, and the MCPTT server serving the MCPTT user has authorised the MCPTT user's interest in the MCPTT group at the MCPTT client.

**Affiliation status**: Applies for an MCPTT user to an MCPTT group and has one of the following states:

a) the "not-affiliated" state indicating that the MCPTT user is not interested in the MCPTT group and the MCPTT user is not affiliated to the MCPTT group;

b) the "affiliating" state indicating that the MCPTT user is interested in the MCPTT group but the MCPTT user is not affiliated to the MCPTT group yet;

c) the "affiliated" state indicating that the MCPTT user is affiliated to the MCPTT group and there was no indication that MCPTT user is no longer interested in the MCPTT group; and

d) the "deaffiliating" state indicating that the MCPTT user is no longer interested in the MCPTT group but the MCPTT user is still affiliated to the MCPTT group.

**Ambient listening call:** a call typeallowing an authorized MCPTT user to cause an MCPTT client to initiate a communication which results in no indication on the MCPTT UE that it is transmitting. Ambient listening can be initiated by an authorized MCPTT user who wants to be listened to by another authorized MCPTT user or can be initiated by an authorized MCPTT user who wants to listen to another MCPTT user.

**Ambient listening client role:** the role of an MCPTT client in an ambient listening call, which can be that of:

a) the "listening MCPTT user"; or

b) the "listened-to MCPTT user".

**Ambient listening type:** the type of an ambient listening call from the perspective of the relationship of the initiator of the call to the user being listened to. The two types of ambient listening call are:

a) "remote-init", indicating that the listening MCPTT user initiated the call; and

b) "local-init", indicating that the listened-to MCPTT user initiated the call.

**First-to-answer call:** A call initiated by one user towards a list of other users with the intention to establish an MCPTT private call or MCPTT emergency private call, with one of the users in the list of users.

**Group document:** when the group is not a regroup based on a preconfigured regroup, the term "group document" used within the present document refers to the group document for that group within the GMS as specified in 3GPP TS 24.481 [31]; when the group is a regroup based on a preconfigured group, the term "group document" used within the present document refers to the group document for the preconfigured group as specified in 3GPP TS 24.481 [31] restricted to the users or groups included in the regroup stored by the MCPTT server at the time of the regroup creation, see clause 16.

**Group identity**: An MCPTT group identity or a temporary MCPTT group identity.

**In-progress emergency private call state:** the state of two participants when an MCPTT emergency private call is in progress.

**In-progress imminent peril group state:** the state of a group when an MCPTT imminent peril group call is in progress.

**Listening MCPTT user:** the MCPTT user in an ambient listening call receiving the media transmission from the listened-to MCPTT user;

**Listened-to MCPTT user:** the MCPTT user in an ambient listening call who is being listened to, may or may not be aware of being listened to depending on ambient listening type of the call.

**MCPTT client ID:** is a globally unique identification of a specific MCPTT client instance. MCPTT client ID is a UUID URN as specified in IETF RFC 4122 [67].

**MCPTT emergency alert state:** MCPTT client internal perspective of the state of an MCPTT emergency alert.

**MCPTT emergency group state:** MCPTT client internal perspective of the in-progress emergency state of an MCPTT group maintained by the controlling MCPTT function.

**MCPTT emergency group call state:** MCPTT client internal perspective of the state of an MCPTT emergency group call.

**MCPTT emergency private call:** MCPTT emergency call between two MCPTT users that is initiated as a private call or a first-to-answer call with emergency indication, or without emergency indication when the MCPTT emergency state is already set,

**MCPTT emergency private call state:** MCPTT client internal perspective of the state of an MCPTT emergency private call.

**MCPTT emergency private priority state:** MCPTT client internal perspective of the in-progress emergency private call state of the two participants of an MCPTT emergency private call maintained by the controlling MCPTT function.

**MCPTT imminent peril group call state:** MCPTT client internal perspective of the state of an MCPTT imminent peril group call.

**MCPTT imminent peril group state:** MCPTT client internal perspective of the state of an MCPTT imminent peril group.

**MCPTT private call:** MCPTT call between two MCPTT users that is initiated as a private call or a first-to-answer call.

**MCPTT private emergency alert state:** MCPTT client internal perspective of the state of an MCPTT private emergency alert targeted to an MCPTT user.

**MCPTT speech:** Conversational audio media used in mission critical push to talk systems as defined by 3GPP TS 22.179 [2] and 3GPP TS 23.379 [3].

**Media-floor control entity**: A media control resource shared by participants in an MCPTT session, controlled by a state machine to ensure that only one participant can access the media resource at the same time.

**N2:** The maximum number of simultaneous affiliations to MCPTT groups that the MCPTT user may have. The value of N2 is specified in the <MaxAffiliationsN2> element of the <Common> element of the MCPTT user profile and corresponds to the parameter Nc2 specified in 3GPP TS 22.280 [76].

**Private call:** A call initiated by one user towards one other user with the intention to establish an MCPTT private call or MCPTT emergency private call.

**Private Call Call-Back:** A mechanism for a requesting MCPTT client to request a targeted MCPTT client to initiate an MCPTT private call with the requesting MCPTT client (at earliest convenience).

**Remote change of an MCPTT user's selected group:** A mechanism allowing an authorised user to remotely change the selected group of another MCPTT user.

**Temporary MCPTT group identity**: A group identity representing a temporary grouping of MCPTT group identities formed by the group regrouping operation as specified in 3GPP TS 24.481 [31].

**Trusted mutual aid**: A business relationship whereby the Partner MCPTT system is willing to share the details of the members of an MCPTT group that it owns with the Primary MCPTT system.

**Untrusted mutual aid**: A business relationship whereby the Partner MCPTT system is not willing to share the details of the members of an MCPTT group that it owns with the Primary MCPTT system.

**Functional alias status**: Applies for the status of a functional alias for an MCTT user and has one of the following states:

a) the "not-activated" state indicating that the MCPTT user has not activated the functional alias;

b) the "activating" state indicating that the MCPTT user is interested in using the functional alias but the functional alias is not yet activated for the MCPTT user;

c) the "activated" state indicating that the MCPTT user has activated the functional alias;

d) the "deactivating" state indicating that the MCPTT user is no longer interested in using the functional alias but the functional alias is still activated for the MCPTT user; and

e) the "take-over-possible" state indicating that the MCPTT user interested in the functional alias is allowed to take-over the functional alias although the functional alias is already activated and used by another MCPTT user.

For the purposes of the present document, the following terms and definitions given in 3GPP TS 22.179 [2] apply:

**In-progress emergency**

**MCPTT emergency alert**

**MCPTT emergency group call**

**MCPTT emergency state**

**Partner MCPTT system**

**Primary MCPTT system**

For the purpose of the present document, the following terms and definitions given in 3GPP TS 24.380 [5] apply:

**MBMS subchannel**

For the purpose of the present document, the following terms and definitions given in 3GPP TS 23.379 [3] apply:

**Pre-selected MCPTT user profile**

**Selected MCPTT user profile**

For the purpose of the present document, the following terms and definitions given in 3GPP TS 33.180 [78] apply:

**Client Server Key (CSK)**

**Multicast Floor Control Key (MKFC)**

Multicast Signalling Key (MuSiK)

**Multicast Signalling Key Identifier (MuSiK-ID)**

**MBMS subchannel control key (MSCCK)**

**MBMS subchannel control key identifier (MSCCK-ID)**

**Private Call Key (PCK)**

**Signalling Protection Key (SPK)**

**XML Protection Key (XPK**)

For the purpose of the present document, the following terms and definitions given in 3GPP TS 22.280 [76] apply:

**Functional alias**

2nd change

#### 9A.2.1.2 Functional alias status change procedure

In order:

- to indicate that an MCPTT user requests to activate or to take-over one or more functional aliases;

- to indicate that the MCPTT user requests to deactivate one or more functional aliases;

- to indicate that the MCPTT user continues to have interest in one or more functional aliases due to near expiration of the expiration time of a functional alias with the status set to the "activated" state received in a SIP NOTIFY request in clause 9A.2.1.3;

- to indicate that the MCPTT client entering into or exiting from a location area triggers one or more functional aliases to be activated;

- to indicate that the MCPTT client entering into or exiting from a location area triggers one or more functional aliases to be deactivated; or

- any combination of the above;

the MCPTT client shall generate a SIP PUBLISH request according to 3GPP TS 24.229 [4], IETF RFC 3903 [37], and IETF RFC 3856 [51].

When the MCPTT user requests to deactivate a functional alias, the MCPTT client shall first check the <manual-deactivation-not-allowed-if-location-criteria-met> element within the <anyExt> element of the <entry> element corresponding to the functional alias within the <FunctionalAliasList> list element of the <anyExt> element of the <OnNetwork> element of the MCPTT user profile document (see the MCPTT user profile document in 3GPP TS 24.484 [50]). If the functional alias has been activated due to a location area trigger and the <manual-deactivation-not-allowed-if-location-criteria-met> element is set to a value of "true", the MCPTT client shall suppress the MCPTT user's request.

NOTE 1: If the request is suppressed, a notification message can be displayed to the user.

In the SIP PUBLISH request, the MCPTT client:

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

2) shall include an application/vnd.3gpp.mcptt-info+xml MIME body. In the application/vnd.3gpp.mcptt-info+xml MIME body, the MCPTT client shall include the <mcptt-request-uri> element set to the MCPTT ID of the MCPTT user;

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

4) if the MCPTT client requests to activate one or more functional aliases, shall set the Expires header field according to IETF RFC 3903 [37], to 4294967295;

NOTE 2: 4294967295, which is equal to 232-1, is the highest value defined for Expires header field in IETF RFC 3261 [24].

5) if the MCPTT client requests to deactivate one or more functional aliases, shall set the Expires header field according to IETF RFC 3903 [37], to zero; and

NOTE 3: Activation and deactivation of functional alias cannot be performed with the same PUBLISH request.

6) shall include an application/pidf+xml MIME body indicating per-user functional alias information according to clause 9A.3.1. In the MIME body, the MCPTT client:

a) shall include all functional aliases where the MCPTT user requests activation for the MCPTT ID;

b) shall include the MCPTT client ID of the targeted MCPTT client;

c) shall not include the "status" attribute and the "expires" attribute in the <functionalAlias> element;

d) if the MCPTT client has received an indication that take over of a functional alias is possible and intends to take over a functional alias, shall include a <take-over> child element in the <status> element set to "true"; and

NOTE 4: The MCPTT client learns that take over of a functional alias is possible from procedures specified in clause 9A.2.1.3 (i.e., when status attribute is set to "take-over-possible"). The take-over indication applies to all functional aliases.e) shall set the <p-id-fa> child element of the <presence> root element to a globally unique value.

NOTE 5: This procedure deviates from IETF RFC 3903 [37] by possibly including an application/pidf+xml MIME body when refreshing the expiration time for one or more functional aliases. The use of this MIME body provides the ability to refresh activation or to deactivate of multiple functional aliases in a single message.

The MCPTT client shall send the SIP PUBLISH request according to 3GPP TS 24.229 [4].

3rd change

#### 9A.2.1.3 Functional alias status determination procedure

NOTE 1: The MCPTT UE also uses this procedure to determine which functional alias have been successfully activated for the MCPTT ID.

In order to discover functional aliases:

1) which are activated for the MCPTT user or which the MCPTT user is allowed to take-over; or

2) which another MCPTT user has activated;

the MCPTT client shall generate an initial SIP SUBSCRIBE request according to 3GPP TS 24.229 [4], IETF RFC 3856 [51], and IETF RFC 6665 [26].

In the SIP SUBSCRIBE request, the MCPTT client:

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

2) shall include an application/vnd.3gpp.mcptt-info+xml MIME body. In the application/vnd.3gpp.mcptt-info+xml MIME body, the MCPTT client shall include:

a) the <mcptt-request-uri> element set to the MCPTT ID of the targeted MCPTT user; and

b) the <request-type> element in the <anyExt> element of the <mcptt-Params> element of the <mcpttinfo> element set to the value "functional-alias-status-determination";

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

4) if the MCPTT client wants to receive the current status and later notification, shall set the Expires header field according to IETF RFC 6665 [26], to 4294967295;

NOTE 2: 4294967295, which is equal to 232-1, is the highest value defined for Expires header field in IETF RFC 3261 [24].

5) if the MCPTT client wants to fetch the current state only, shall set the Expires header field according to IETF RFC 6665 [26], to zero;

6) shall include an Events header field set to "presence"; and

7) shall include an Accept header field containing the application/pidf+xml MIME type.

In order to re-subscribe or de-subscribe, the MCPTT client shall generate an in-dialog SIP SUBSCRIBE request according to 3GPP TS 24.229 [4], IETF RFC 3856 [51], and IETF RFC 6665 [26]. In the SIP SUBSCRIBE request, the MCPTT client:

1) if the MCPTT client wants to receive the current status and later notification, shall set the Expires header field according to IETF RFC 6665 [26], to 4294967295;

NOTE 3: 4294967295, which is equal to 232-1, is the highest value defined for Expires header field in IETF RFC 3261 [24].

2) if the MCPTT client wants to de-subscribe, shall set the Expires header field according to IETF RFC 6665 [26], to zero;

3) shall include an Events header field set to "presence"; and

4) shall include an Accept header field containing the application/pidf+xml MIME type.

Upon receiving a SIP NOTIFY request according to 3GPP TS 24.229 [4], IETF RFC 3856 [51], and IETF RFC 6665 [26], if SIP NOTIFY request contains an application/pidf+xml MIME body indicating per-user functional alias information constructed according to clause 9A.3.1, then the MCPTT client shall determine the status of each functional alias for the MCPTT user in the MIME body. If the <p-id-fa> child element of the <presence> root element of the application/pidf+xml MIME body of the SIP NOTIFY request is included, the <p-id-fa> element value indicates the SIP PUBLISH request which triggered sending of the SIP NOTIFY request.

If the MCPTT client detected a functional alias activation or deactivation, it shall perform the procedure specified in clause 9.2.1.7.

4th change

##### 9A.2.2.3.3 Receiving functional alias status change procedure

Upon receiving a SIP PUBLISH request such that:

1) Request-URI of the SIP PUBLISH request contains the public service identity of the controlling MCPTT function associated with the served functional alias;

2) the SIP PUBLISH request contains an application/vnd.3gpp.mcptt-info+xml MIME body containing the <mcptt-request-uri> element and the <mcptt-calling-user-id> element;

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

4) the Event header field of the SIP PUBLISH request contains the "presence" event type; and

5) SIP PUBLISH request contains an application/pidf+xml MIME body indicating per-functional alias information constructed according to clause 9A.3.1.2;

then the MCPTT server:

1) shall identify the served functional alias in the <mcptt-request-uri> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the SIP PUBLISH request;

2) shall identify the handled MCPTT ID in the <mcptt-calling-user-id> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the SIP PUBLISH request;

3) if the Expires header field of the SIP PUBLISH request is not included or has nonzero value lower than 4294967295, shall send a SIP 423 (Interval Too Brief) response to the SIP PUBLISH request, where the SIP 423 (Interval Too Brief) response contains a Min-Expires header field set to 4294967295, and shall not continue with the rest of the steps;

4) if the functional alias does not exist in the MCPTT server, shall reject the SIP PUBLISH request with SIP 403 (Forbidden) response to the SIP PUBLISH request according to 3GPP TS 24.229 [4], IETF RFC 3903 [37] and IETF RFC 3856 [51] and skip the rest of the steps;

4a) if SIP PUBLISH request is for activation of a functional alias then:

a) if handled MCPTT ID does not match with any of the entries in the <mcptt-user-list> which contains the MCPTT IDs of MCPTT users which are allowed to activate the functional alias; or

b) if no local policy exists that authorizes the request by the handled MCPTT ID;

shall reject the SIP PUBLISH request with SIP 403 (Forbidden) response according to 3GPP TS 24.229 [4], IETF RFC 3903 [37] and IETF RFC 3856 [51] and skip the rest of the steps;

5) if SIP PUBLISH request is for activation of a functional alias and the number of activations for the handled functional alias is equal <max-simultaneous-activations>, shall reject the SIP PUBLISH request with SIP 403 (Forbidden) response to the SIP PUBLISH request according to 3GPP TS 24.229 [4], IETF RFC 3903 [37] and IETF RFC 3856 [51] and skip the rest of the steps;

6) if SIP PUBLISH request is for take over of a functional alias, the MCPTT server shall use the <allow-takeover> element of the MCPTT service configuration document and the <allow-takeover-functional-alias-other-user> element of the MCPTT user profile document (see 3GPP TS 24.484 [50]) to determine if take over is possible. If take over is not possible, the MCPTT server shall reject the SIP PUBLISH request with SIP 403 (Forbidden) response to the SIP PUBLISH request according to 3GPP TS 24.229 [4], IETF RFC 3903 [37] and IETF RFC 3856 [51] and skip the rest of the steps;

7) shall respond with SIP 200 (OK) response to the SIP PUBLISH request according to 3GPP TS 24.229 [4], IETF RFC 3903 [37]. In the SIP 200 (OK) response, the MCPTT server:

a) shall set the Expires header field according to IETF RFC 3903 [37], to the selected expiration time;

8) if the "entity" attribute of the <presence> element of the application/pidf+xml MIME body of the SIP PUBLISH request is different than the served functional alias ID, shall not continue with the rest of the steps;

9) if the handled MCPTT ID is different from the MCPTT ID in the "id" attribute of the <tuple> element of the <presence> root element of the application/pidf+xml MIME body of the SIP PUBLISH request, shall not continue with the rest of the steps;

10) shall consider a functional alias information entry such that:

a) the functional alias information entry is in the list of functional alias information entries described in clause 9A.2.2.3.2; and

b) the functional alias ID of the functional alias information entry is equal to the served functional alias ID;

as the served functional alias information entry;

11) if the selected expiration time is zero:

a) shall remove the MCPTT user information entry such that:

i) the MCPTT user information entry is in the list of the MCPTT user information entries of the served functional alias information entry; and

ii) the MCPTT user information entry has the MCPTT ID set to the served MCPTT ID;

12) if the selected expiration time is not zero:

a) shall consider an MCPTT user information entry such that:

i) the MCPTT user information entry is in the list of the MCPTT user information entries of the served functional alias information entry; and

ii) the MCPTT ID of the MCPTT user information entry is equal to the handled MCPTT ID;

as the served MCPTT user information entry;

b) if the MCPTT user information entry does not exist:

i) shall insert an MCPTT user information entry with the MCPTT ID set to the handled MCPTT ID into the list of the MCPTT user information entries of the served functional alias information entry; and

ii) shall consider the inserted MCPTT user information entry as the served MCPTT user information entry; and

c) shall set the expiration time according to the selected expiration time in the served MCPTT user information entry;

13) shall identify the handled p-id-fa in the <p-id-fa> child element of the <presence> root element of the application/pidf+xml MIME body of the SIP PUBLISH request; and

14) shall perform the procedures specified in clause 9A.2.2.3.5 for the served functional alias ID.

5th change

#### 9A.3.1.2 Syntax

The application/pidf+xml MIME body indicating per-user functional alias information is constructed according to IETF RFC 3863 [52] and:

1) contains a <presence> root element according to IETF RFC 3863 [52];

2) contains an "entity" attribute of the <presence> element set to the MCPTT ID of the MCPTT user;

3) contains one <tuple> child element according to IETF RFC 3863 [52] per <presence> element;

4) can contain a <p-id-fa> child element defined in the XML schema defined in table 9A.3.1.2-1, of the <presence> element set to an identifier of a SIP PUBLISH request;

5) contains an "id" attribute of the <tuple> element set to the MCPTT client ID;

6) contains one <status> child element of each <tuple> element;

7) contains one <functionalAlias> child element defined in the XML schema defined in table 9A.3.1.2-1, of the <status> element, for each functional alias in which the MCPTT user is interested;

8) contains a "functionalAliasID" attribute of each <functionalAlias> element set to the functional alias ID of the functional alias in which the MCPTT user is interested;

9) can contain a "status" attribute of each <functionalAlias> element indicating the activation status of functional alias for the MCPTT user;

10) can contain an "expires" attribute of each <functionalAlias> element indicating expiration of activation of the functional alias for the MCPTT user; and

11) can contain one <take-over> child element of the <status> element set to "true" indicating that the MCPTT user is interested to take over the functional aliases.

The application/pidf+xml MIME body indicating per-functional alias status information is constructed according to IETF RFC 3856 [51] and:

1) contains the <presence> root element according to IETF RFC 3863 [52];

2) contains an "entity" attribute of the <presence> element set to the functional alias ID of the functional alias;

3) contains one <tuple> child element according to IETF RFC 3863 [52] of the <presence> element;

4) can contain a <p-id-fa> child element defined in the XML schema defined in table 9A.3.1.2-1, of the <presence> element set to an identifier of a SIP PUBLISH request;

5) contains an "id" attribute of the <tuple> element set to the functional alias ID;

6) contains one <status> child element of each <tuple> element;

7) contains one <functionalAlias> child element defined in the XML schema defined in table 9A.3.1.2-1, of the <status> element, for each MCPTT ID for which functional alias information is provided;

8) contains one "user" attribute defined in the XML schema defined in table 9A.3.1.2-1, of the <functionalAlias> element set to the MCPTT client ID; and

9) can contain an "expires" attribute defined in the XML schema defined in table 9A.3.1.2-1, of the <functionalAlias> element indicating expiration of activation of the functional alias for the MCPTT user.

Table 9A.3.1.2-1: XML schema with elements and attributes extending the application/pidf+xml MIME body

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

<xs:schema

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

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

xmlns:mcpttPIFA10="urn:3gpp:ns:mcpttPresInfoFA:1.0"

elementFormDefault="qualified" attributeFormDefault="unqualified">

<!-- MCPTT functional alias specific child elements of presence element -->

<xs:element name="p-id-fa" type="xs:string"/>

<!-- MCPTT functional alias specific child elements of status element -->

<xs:element name="functionalAlias" type="mcpttPIFA10:functionalAliasType"/>

<xs:complexType name="functionalAliasType">

<xs:sequence>

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

</xs:sequence>

<xs:attribute name="functionalAliasID" type="xs:anyURI" use="optional"/>

<xs:attribute name="user" type="xs:anyURI" use="optional"/>

<xs:attribute name="status" type="mcpttPIFA10:statusType" use="optional"/>

<xs:attribute name="expires" type="xs:dateTime" use="optional"/>

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

</xs:complexType>

<xs:simpleType name="statusType">

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

<xs:enumeration value="activating"/>

<xs:enumeration value="activated"/>

<xs:enumeration value="deactivating"/>

<xs:enumeration value="take-over-possible"/>

</xs:restriction>

</xs:simpleType>

<!-- MCPTT functional alias specific child elements of status element -->

<xs:element name="take-over" type="xs:boolean"/>

</xs:schema>

The application/pidf+xml MIME body refers to namespaces using prefixes specified in table 9A.3.1.2-2.

Table 9A.3.1.2-2: Assignment of prefixes to namespace names in the application/pidf+xml MIME body

|  |  |
| --- | --- |
| Prefix | Namespace |
| mcpttPIFA10 | urn:3gpp:ns:mcpttPresInfoFA:1.0 |
| NOTE: The "urn:ietf:params:xml:ns:pidf" namespace is the default namespace so no prefix is used for it in the application/pidf+xml MIME body. | |

End of changes