**3GPP TSG- Meeting #**

**, , - (was C1-211125)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24379** | **CR** | **0688** | **rev** | **1** | **Current version:** | **15.9.0** |  |
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| *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:*** | Determination of the FAs activated by another user | | | | | | | | | |
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| ***Source to WG:*** | UPV/EHU, Nokia, Nokia Shanghai Bell, Firstnet | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MONASTERY | | | | |  | ***Date:*** | | | 2021-02-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-15 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Stage-1 requirements state in Rel-15 of TS 22.280 (and corresponding stage-2) that  [R-5.9a-011] If an MCX Service system supports functional alias, then an authorized MCX User shall be able to interrogate the MCX Service system of the alias(es) active for a certain MCX User.  Subclause 9A.2.1.3 in TS 24.379 states that the <mcptt-request-uri> in the SIP SUBSCRIBE can be either the own one or that of another user. However, existing implementation supports only subscribing to info related to users served by the same (originating) MCPTT server. If the user is unknown at the server the subscribe will fail.  The corresponding handling at the server side, as 9A.2.2.2.4 states:  "3) if the Request-URI of the SIP SUBSCRIBE request contains the public service identity identifying the terminating participating MCPTT function serving the MCPTT user, shall identify the originating MCPTT ID in the <mcptt-calling-user-id> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the SIP SUBSCRIBE request;"  The latter dictates that the terminating participating MCPTT functions somehow receives a SUBSCRIBE with the mcptt-calling-user-id filled. This could be done by the originating participating (serving the initial user) including such information and forwarding the SUBSCRIBE request.  Besides, step 4 in 9A.2.2.2.4 “Receiving subscription to functional alias status procedure” incorrectly mentions modifying the status, whereas it refers to determination.  "4) if the originating MCPTT ID is different than the served MCPTT ID and the originating MCPTT ID is not authorized to modify functional alias status of the served MCPTT ID, shall send a SIP 403 (Forbidden) response and shall not continue with the rest of the steps; and" | | | | | | | | |
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| ***Summary of change:*** | | 1) The procedure defined for forwarding the affiliation mechanism (Section 9.2.2.2.10) is reused for the determination of the FA.  2) Fix rejection description for FA  3) Fix references to subclauses (applies only to Rel.15, since it has been already corrected in subsequent Releases)  4) Void 9A.2.2.8 added to synch with Release 16 (applies only to Rel. 15) | | | | | | | | |
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| ***Consequences if not approved:*** | | A user can only retrieve the FAs activated by users served by the same server since there is no way to forward the determination request to the terminating participating server. | | | | | | | | |
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| ***Clauses affected:*** | | 9A.2.2.2.4, 9A.2.2.2.7, 9A.2.2.2.8(new) and 9A.2.2.2.9(new) | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* \* \* FIRST CHANGE \* \* \* \* \* \* \*

##### 9A.2.2.2.1 General

The procedures of MCPTT server serving the MCPTT user consist of:

- a receiving functional alias status change from MCPTT client procedure;

- a receiving subscription to functional alias status procedure;

- a sending notification of change of functional alias status procedure;

- a sending functional alias status change towards MCPTT server owning the functional procedure;

- a functional alias status determination from MCPTT server owning the functional alias procedure; and

- a forwarding subscription to functional alias status towards another MCPTT server procedure, which is used to identify the status of functional aliases activated by a target user who is served by another MCPTT server.\* \* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \* \*

##### 9A.2.2.2.4 Receiving subscription to functional alias status procedure

Upon receiving a SIP SUBSCRIBE request such that:

1) Request-URI of the SIP SUBSCRIBE request contains either the public service identity identifying the originating participating MCPTT function serving the MCPTT user, or the public service identity identifying the terminating participating MCPTT function serving the MCPTT user;

2) the SIP SUBSCRIBE request contains an application/vnd.3gpp.mcptt-info+xml MIME body containing the<mcptt-request-uri> element which identifies an MCPTT ID served by the MCPTT server;

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]; and

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

the MCPTT server:

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

2) if the Request-URI of the SIP SUBSCRIBE request contains the public service identity identifying the originating participating MCPTT function serving the MCPTT user, shall identify the originating MCPTT ID from public user identity in the P-Asserted-Identity header field of the SIP SUBSCRIBE request;

3) if the Request-URI of the SIP SUBSCRIBE request contains the public service identity identifying the terminating participating MCPTT function serving the MCPTT user, shall identify the originating MCPTT ID in the <mcptt-calling-user-id> element of the application/vnd.3gpp.mcptt-info+xml MIME body of the SIP SUBSCRIBE request;

4) if the originating MCPTT ID is different than the served MCPTT ID and the originating MCPTT ID is not authorized to subscribe to the functional alias status of the served MCPTT ID, shall send a SIP 403 (Forbidden) response and shall not continue with the rest of the steps; and

5) shall generate a SIP 200 (OK) response to the SIP SUBSCRIBE request according to 3GPP TS 24.229 [4], IETF RFC 6665 [26].

For the duration of the subscription, the MCPTT server shall notify the subscriber about changes of the information of the served MCPTT ID, as described in subclause 9A.2.2.2.5.

\* \* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \* \*

##### 9A.2.2.2.7 Functional alias status determination from MCPTT server owning functional alias procedure

NOTE 1: Usage of one SIP SUBSCRIBE request to subscribe for notification about change of functional alias state of several MCPTT users served by the same MCPTT server is not supported in this version of the specification.

In order to discover whether a served MCPTT user successfully activated a handled functional alias in the MCPTT server owning the functional alias, the MCPTT server 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 server:

1) shall set the Request-URI to the public service identity of the controlling MCPTT function associated with the handled functional alias;

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

a) shall include the <mcptt-request-uri> element set to the handled functional alias ID; and

b) shall include the <mcptt-calling-user-id> element set to the served MCPTT ID;

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-Asserted-Service header field according to IETF RFC 6050 [9];

4) if the MCPTT server 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 server 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 Accept header field containing the application/pidf+xml MIME type;

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

8) shall include an application/simple-filter+xml MIME body indicating per-user restrictions of presence event package notification information according to subclause 9A.3.2, indicating the served MCPTT ID.

In order to re-subscribe or de-subscribe, the MCPTT server 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 server:

1) if the MCPTT server 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 server 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-functional alias information constructed according to subclause 9A.3.1, then the MCPTT server:

1) for each served MCPTT ID such that the application/pidf+xml MIME body of SIP NOTIFY request contains:

a) a <tuple> element of the root <presence> element;

b) the "id" attribute of the <tuple> element indicating the served MCPTT ID;

c) an <functionalAlias> child element of the <status> element of the <tuple> element; and

d) the "expires" attribute of the <functionalAlias> element indicating expiration of activation of functional alias;

perform the following:

a) if a functional alias information entry exists such that:

i) the functional alias information entry has the "activating" functional alias status, the functional alias ID set to the handled functional alias ID, and the expiration time has not expired yet;

ii) the functional alias information entry is in the list of the functional alias information entries of an MCPTT user information entry with the MCPTT ID set to the served MCPTT ID; and

iii) the MCPTT user information entry is in the list of MCPTT user information entries described in subclause 9A.2.2.2.2;

shall set the functional alias status of the functional alias information entry to "activated"; and

shall set the next publishing time of the functional alias information entry to the current time and half of the time between the current time and the expiration of the functional alias; and

2) for each functional alias information entry such that:

a) the functional alias information entry has the "activated" functional alias status or the "deactivating" functional alias status, the functional alias ID set to the handled functional alias ID, and the expiration time has not expired yet;

b) the functional alias information entry is in the list of the functional alias information entries of an MCPTT user information entry with the MCPTT ID set to a served MCPTT ID; and

c) the MCPTT user information entry is in the list of MCPTT user information entries described in subclause 9A.2.2.2.2; and

for which the application/pidf+xml MIME body of SIP NOTIFY request does not contain:

a) a <tuple> element of the root <presence> element;

b) the "id" attribute of the <tuple> element indicating the served MCPTT ID; and

c) an <functionalAlias> child element of the <status> child element of the <tuple> element.

perform the following:

a) shall set the functional alias status of the functional alias information entry to "deactivated"; and

b) shall set the expiration time of the functional alias information entry to the current time; and

3) if a <p-id-fa> element is included in the <presence> root element of the application/pidf+xml MIME body of the SIP NOTIFY request, then for each functional alias information entry such that:

a) the functional alias information entry has the "activating" functional alias status, the functional alias ID set to the handled functional alias ID, the expiration time has not expired yet and with the activating p-id-fa set to the value of the <p-id-fa> element;

b) the functional alias information entry is in the list of the functional alias information entries of an MCPTT user information entry with the MCPTT ID set to a served MCPTT ID; and

d) the MCPTT user information entry is in the list of MCPTT user information entries described in subclause 9A.2.2.2.2; and

for which the application/pidf+xml MIME body of SIP NOTIFY request does not contain:

a) a <tuple> element of the root <presence> element;

b) the "id" attribute of the <tuple> element indicating the served MCPTT ID; and

c) an <functionalAlias> child element of the <status> child element of the <tuple> element;

perform the following:

a) shall set the functional alias status of the functional alias information entry to "deactivated"; and

b) shall set the expiration time of the functional alias information entry to the current time.

\* \* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \* \*

##### 9A.2.2.2.8 Void

\* \* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \* \*

##### 9A.2.2.2.9 Forwarding subscription to functional alias status towards another MCPTT server procedure

Upon receiving a SIP SUBSCRIBE request such that:

1) Request-URI of the SIP SUBSCRIBE request contains the public service identity identifying the originating participating MCPTT function serving the MCPTT user;

2) the SIP SUBCRIBE request contains an application/vnd.3gpp.mcptt-info MIME body containing the <mcptt-request-uri> element which identifies an MCPTT ID not served by MCPTT server;

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]; and

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

then the MCPTT server:

1) shall identify the target MCPTT ID in the <mcptt-request-uri> element of the application/vnd.3gpp.mcptt-info MIME body of the SIP SUBSCRIBE request;

2) shall identify the originating MCPTT ID from public user identity in the P-Asserted-Identity header field of the SIP SUBSCRIBE request;

3) shall generate a SIP SUBSCRIBE request from the received SIP SUBSCRIBE request. In the generated SIP SUBSCRIBE request, the MCPTT server:

a) shall set the Request-URI to the public service identity identifying the terminating participating MCPTT function serving the target MCPTT ID;

b) shall include a P-Asserted-Identity header field containing the public service identity identifying the originating participating MCPTT function serving the MCPTT user;

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

A) shall include the <mcptt-request-uri> element set to the target MCPTT ID; and

B) shall include the <mcptt-calling-user-id> element set to the originating MCPTT ID; and

d) shall include other signalling elements from the received SIP SUBSCRIBE request; and

4) shall send the generated SIP SUBSCRIBE request according to 3GPP TS 24.229 [4].

The MCPTT server shall forward to the originating MCPTT ID any received SIP responses to the SIP SUBSCRIBE request, and for the duration of the subscription any received SIP NOTIFY requests and any received SIP responses to the SIP NOTIFY request according to 3GPP TS 24.229 [4].

\* \* \* \* \* \* \* END CHANGES \* \* \* \* \* \* \*