**3GPP TSG-CT WG1 Meeting #125-eC1-20wxyz**

**Electronic meeting, 20-28 August 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.379** | **CR** | **CR#** | **rev** | **-** | **Current version:** | **16.0.0** |  |
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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 |  | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Add Conference Event Package to IWF |
|  |  |
| ***Source to WG:*** | FirstNet |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | enh1MCCI-CT |  | ***Date:*** | 20 August 2020 |
|  |  |  |  |  |
| ***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 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)* |
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| ***Reason for change:*** | The Conference Event Package is to be covered in clause 10.3 of TS 29.379 and is only represented there now by an editor's note.Support of the conference event package is optional for the IWF, but the IWF can receive SUBSCRIPTION requests from MCPTT servers when the group is homed in the IWF. Therefore, the IWF must be capable of either supporting the conference event package or indicating to the requester that it does not support the feature. |
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| ***Summary of change:*** | The editor's note in clause 10.3 is replaced by a set of subclauses that provide the ability to either reject a SUBSCRIPTION request or to support the conference event package. The new text is based on subclause 10.1.3 and its corresponding subclauses in TS 24.379.Clause 10.3.5 contains only an editor's note indicating that it should be completed once the other clauses in TS 29.379 dealing with the IWF performing the non-controlling role become stable. |
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| ***Consequences if not approved:*** | The IWF will not be able to choose to either reject a SUBSCRIPTION request or to support the conference event package. |
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| ***Clauses affected:*** | 6.6.1.3 (new), 10.3,  (the remainder are all new) 10.3.1, 10.3.2, 10.3.3, 10.3.4, 10.3.4.1, 10.3.4.2, 10.3.4.3, 10.3.4.4, 10.3.5 |
|  |  |
|  | **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 \* \* \* \* \***

#### 6.6.1.3 SIP SUBSCRIBE request

The IWF needs to distinguish between the following SIP SUBSCRIBE requests for originations and terminations:

- SIP SUBSCRIBE requests routed to the IWF performing the controlling role with the Request-URI set to the MCPTT session identity identifying the IWF performing the controlling role and containing an Event header field set to "conference". Such requests are known as "SIP SUBSCRIBE request for event status subscription in the controlling MCPTT function" in the procedures in the present document; and

- SIP SUBSCRIBE requests routed to the IWF performing non-controlling role with the Request-URI set to the MCPTT session identity identifying the IWF performing non-controlling role and containing an Event header field set to "conference". Such requests are known as "SIP SUBSCRIBE request for event status subscription in the non-controlling MCPTT function" in the procedures in the present document.

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

## 10.3 Subscription to the conference event package

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

### 10.3.1 General

The IETF RFC 4575 [15] defines a conference event package that shall be used to obtain the status of participants in group sessions.

The IWF performing the participating role can send conference state subscriptions and receive notifications as specified in subclause 10.3.3.

The IWF performing the controlling role can handle subscriptions and notification of conference events as specified in subclause 10.3.4.

The IWF performing the non-controlling role can handle subscriptions and notification of conference events as specified in subclause 10.3.5.

When the non-controlling function connection model is used, the IWF performing the controlling role subscribes to the conference event package from the non-controlling MCPTT function as specified in subclause 10.3.4.3 and the IWF performing the non-controlling role subscribes to the conference event package from the controlling MCPTT function as specified in subclause 10.3.5.3.

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

### 10.3.2 Client

The user homed in the IWF is transparent to the conference package from the MCPTT system. The IWF performing the participating role can choose to subscribe to a conference event package from the controlling MCPTT function. How it uses the information it obtains from the controlling MCPTT function is out of the scope of the present document.

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

### 10.3.3 IWF performing the participating role

When the IWF performing the participating role determines that it wants to use the conference event package, it:

3) shall generate a SUBSCRIBE request as specified in 3GPP TS 24.229 [3]

4) shall set the SIP URI in the Request-URI with the MCPTT session identity that is mapped to the MCPTT group session;

5) shall include in the application/vnd.3gpp.mcptt-info+xml MIME body the <mcptt-calling-user-id> element set to the MCPTT ID of the IWF: and

6) shall insert a Record-Route header containing a URI identifying its own address; and

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

Upon receiving a SIP response to the SIP SUBSCRIBE request the IWF performing the participating role can store the information.

Upon receiving a SIP NOTIFY request within the dialog created by the SIP SUBSCRIBE request, the IWF performing the participating role can use the information provided as determined locally. Such use is outside the scope of the present document.

1) shall create an outgoing SIP 200 (OK) response;

2) shall include the MCPTT group session identity in the outgoing SIP response; and

3) shall forward the SIP response according to 3GPP TS 24.229 [3].

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

### 10.3.4 IWF performing the controlling role

#### 10.3.4.1 Receiving a subscription to the conference event package

Upon receipt of a SIP SUBSCRIBE request for event package subscription, if the IWF performing the controlling role does not support the conference event package, the IWF performing the controlling role:

1) shall reject the "SIP SUBSCRIBE request for event status subscription in the controlling MCPTT function" with a SIP 403 (Forbidden) response to the SIP SUBSCRIBE request, with warning text set to "138 subscription of conference events not allowed" as specified in subclause 4.2; and

2) shall not continue with the remaining steps.

If the SIP SUBSCRIBE request:

1) contains an application/vnd.3gpp.mcptt-info+xml MIME body with

a) the <mcptt-request-uri> element set to the group identity of the group session and the <mcptt-calling-user-id> element set to either:

i) the MCPTT ID of a participant in the group session; or

ii) a constituent MCPTT group ID of a non-controlling MCPTT function in a temporary group session;

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

3) contains an Accept header field containing the application/conference-info+xml MIME type; and

4) is not received in a group call initiated as a broadcast group call;

then the IWF performing the controlling role:

1) shall determine if the MCPTT ID or the constituent MCPTT group ID in the <mcptt-calling-user-id> element is allowed to subscribe to the conference event package and if not allowed:

a) shall reject the "SIP SUBSCRIBE request for event status subscription in the controlling MCPTT function" with a SIP 403 (Forbidden) response to the SIP SUBSCRIBE request, with warning text set to "138 subscription of conference events not allowed" as specified in subclause 4.2; and

b) shall not continue with the remaining steps;

2) shall handle the request according to IETF RFC 6665 [25] and IETF RFC 4575 [15];

3) shall cache information about the subscription;

4) shall send a conference state notification as specified in subclause 10.3.4.2; and

5) if the SIP SUBSCRIBE request is the first SUBSCRIBE request from a participant in a temporary group session, shall subscribe to the conference event package from all non-controlling MCPTT functions in the group session as specified in subclause 10.3.4.3.

Upon receipt of a SIP SUBSCRIBE request for event package subscription in the IWF performing the controlling role in a group call initiated as a broadcast group call, the IWF performing the controlling role:

1) shall generate a SIP 480 (Temporarily Unavailable) response to the SIP SUBSCRIBE request as specified in 3GPP TS 24.229 [3];

2) shall include a Warning header field with the warning text set to "105 subscription not allowed in a broadcast group call" as specified in subclause 4.2; and

3) send the SIP 480 (Temporarily Unavailable) response according to 3GPP TS 24.229 [3].

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

#### 10.3.4.2 Sending notifications to the conference event package

The procedures in this subclause is triggered by:

1) the receipt of a SIP SUBSCRIBE request as specified in subclause 10.3.4.1;

2) the receipt of a SIP BYE request from one of the participants in a pre-arranged or a chat group session; or

3) when a new participant is added in a pre-arranged or chat group session.

When sending a conference event notification, the IWF performing the controlling role:

1) shall generate a notification package as specified in subclause 6.6.3.4 to all MCPTT clients which have subscribed to the conference event package; and

NOTE: As a group document can potentially have a large content, the IWF performing the controlling role can notify using content-indirection as defined in IETF RFC 4483 [17].

2) shall send a SIP NOTIFY request to all MCPTT participants which have subscribed to the conference event package as specified in 3GPP TS 24.229 [3].

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

#### 10.3.4.3 Sending subscriptions to the conference event package

The procedure in this subclause is triggered by:

1) the receipt of a SIP 200 (OK) response to a SIP INVITE request for non-controlling MCPTT function of an MCPTT group and if at least one participant already has subscribed to the conference event package in the IWF performing the controlling role as specified in subclause 10.3.4.1; or

2) the receipt of the first SIP SUBSCRIBE request as specified in subclause 10.3.4.1 and one or more participants in the group session is a non-controlling MCPTT function;

then, for each non-controlling MCPTT function from where a SIP 200 (OK) response to a SIP INVITE request for non-controlling MCPTT function of an MCPTT group has been received and where a SIP SUBSCRIBE request is not already sent, the IWF performing the controlling role:

1) shall generate a SIP SUBSCRIBE request and use a new SIP-dialog according to IETF RFC 6665 [25], IETF RFC 4575 [15] and 3GPP TS 24.229 [3];

2) shall set the Request-URI of the SIP SUBSCRIBE request to the public service identity of the non-controlling MCPTT function serving the group identity of the MCPTT group owned by the partner MCPTT system;

3) shall include the same P-Asserted-Identity header field as included in the SIP INVITE request for non-controlling MCPTT function of an MCPTT group;

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

5) shall include an Accept-Contact header with the g.3gpp.mcptt along with "require" and "explicit" header field parameters according to IETF RFC 3841 [7];

6) shall set the Expires header field according to IETF RFC 6665 [25], to 4294967295;

NOTE 1: 4294967295, which is equal to 232-1, is the highest value defined for Expires header field in IETF RFC 3261 [14].

7) shall include an Accept header field containing the application/conference-info+xml MIME type;

8) shall include an application/vnd.3gpp.mcptt-info+xml MIME body with:

a) the <mcptt-request-uri> element set to the constituent MCPTT group ID; and

b) the <mcptt-calling-group-id> set to the temporary MCPTT group ID; and

9) shall send the SIP SUBSCRIBE request using a new SIP dialog according to 3GPP TS 24.229 [3].

The responses to the SIP SUBSCRIBE request shall be handled according to IETF RFC 6665 [25], IETF RFC 4575 [15] and 3GPP TS 24.229 [3].

Upon receiving an incoming SIP NOTIFY requests to the previously sent SIP SUBSCRIBE request, the IWF performing the controlling role:

1) shall handle the request according to IETF RFC 6665 [25] and IETF RFC 4575 [15];

2) shall modify the SIP NOTIFY request as specified in subclause 6.6.3.4; and

3) shall forward the modified SIP NOTIFY request according to 3GPP TS 24.229 [3] to all other participants with a subscription to the conference event package.

NOTE 2: A non-controlling MCPTT function of an MCPTT group is regarded as a participant in a temporary group session.

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

#### 10.3.4.4 Terminating a subscription

Upon receipt of a SIP SUBSCRIBE request for event status subscription in the IWF performing the controlling role that terminates the subscription of the conference event package as specified in IETF RFC 6665 [25], the IWF performing the controlling role:

1) shall send a SIP 200 (OK) response as specified in IETF RFC 6665 [25]; and

2) if there are no remaining subscriptions to the event package in the ongoing call in a temporary group session, shall terminate the subscriptions to the conference event package as specified in IETF RFC 6665 [25] in all non-controlling MCPTT functions in the temporary group session.

Upon expiry of the subscription timer and if there are no remaining subscriptions to the event package in the ongoing call in a temporary group session, the IWF performing the controlling role shall terminate the subscriptions to the conference event package as specified in IETF RFC 6665 [25] in all non-controlling MCPTT functions in the temporary group session.

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

### 10.3.5 IWF performing the non-controlling role

Editor's Note: Actions by the IWF performing the non-controlling role are FFS and need to be considered after the other subclauses of TS 29.379 dealing with the IWF performing the non-controlling role become stable.

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