**3GPP TSG-CT WG3 Meeting #130 *C3-234xxx***

**Xiamen, China, 9 - 13 October, 2023 was C3-234347**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.538** | **CR** | **0035** | **rev** | **1** | **Current version:** | **18.3.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <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:*** | Service Operation for Messaging Topic List Subscription | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GMARCH\_Ph2 | | | | |  | ***Date:*** | | | 2023-09-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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:*** | | The MSGS\_TopiclistEvents service was defined in TS 23 554 R18 stage 2, and the stage 2 CR S6-232870 proposed Topic unsubscription operation and S6-232869 proposed Topic list unsubscription procedure. This CR is proposed to add Messaging Topic list subscription and notification to align to the stage 2 definition. | | | | | | | | |
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| ***Summary of change:*** | | Add Messaging Topic list subscription and notification operation of MSGS\_TopiclistEvents service | | | | | | | | |
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| ***Consequences if not approved:*** | | The functionality of Messaging Topic cannot be implemented. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.x.2(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

#### 5.x.2.2 MSGS\_TopiclistEvent\_SubscribeMSGTopiclist

##### 5.x.2.2.1 General

This service operation is used by MSGin5G Server to subscribe to Messaging Topic list on another MSGin5G Server, corresponds to clause 9.1.1.6.2 as defined in 3GPP TS 23.554 [2].

##### 5.x.2.2.2 MSGin5G Server subscribing to MSGin5G Messaging Topic List



Figure 5.x.2.2.2-1:MSGin5G Server Subscribing to Messaging Topic List

To subscribe MSGin5G Messaging Topic list on another MSGin5G Server 2, the MSGin5G Server 1 shall send an HTTP POST message to the MSGin5G Server 2 on the "Topic List Subscription" collection resource. The body of the HTTP POST message shall include TopicListSubscription data structure that shall include:

- the Originating MSGin5G Server ID within the "oriAddr" attribute;

- the Recipient MSGin5G Server ID within the "destAddr" attribute;

- a notification target address within the "notificationURI" attribute;and

may include:

- the Expiration within the "exprTime" attribute;

- the security credentials within the "secCred" attribute.

Upon receiving the HTTP POST message from the MSGin5G Server 1, the MSGin5G Server 2 shall:

1. make an authorization based on the information received from from MSGin5G Server 1;

2. checks the locally stored Messaging Topic list subscription(s):

a. If the MSGin5G Server 1's subscription has already been created, the MSGin5G Server 2 updates the validity time of this subscription;

b. If the MSGin5G Server 1's subscription has not been created, the MSGin5G Server 2 creates new subscription; and

If the subscription request is successfully processed, the MSGin5G Server 2 shall respond to the MSGin5G Server 1 with an HTTP "201 Created" status code, including an HTTP Location header field containing the URI of the created "Topic List Subscription" resource and the response body containing TopicListSubscriptionAck data structure that shall contain:

- the Subscriptoin Status within the "subStat" attribute; and may contain

- the Expireation within the "exprTime" attribute.

If errors occur when processing the HTTP POST request, the MSGin5G Server 2 shall apply error handling procedures as specified in clause 8.3.6.

\* \* \* Next Change \* \* \* \*

#### 5.x.2.3 MSGS\_TopiclistEvent\_UnsubscribeMSGTopiclist

##### 5.x.2.3.1 General

This service operation is used by MSGin5G Server to subscribe to Messaging Topic list on another MSGin5G Server, corresponds to clause 9.1.1.6.2 as defined in 3GPP TS 23.554 [2].

##### 5.x.2.3.2 MSGin5G Server Unsubscribing to MSGin5G Messaging Topic List



Figure 5.x.2.3.2-1:MSGin5G Server Unsubscribing to Messaging Topic List

As shown in Figure 5.x.2.3.2-1, to unsubscribe MSGin5G Messaging Topic list on the MSGin5G Server 2, the MSGin5G Server 1 shall send HTTP POST message to the MSGin5G Server 2 on the "Individual Topic List Subscription" collection resource, where "{subscriptionId}" is the identifier of the existing Messaging Topic list subscription that is to be deleted. The body of the HTTP POST message shall include TopicListUnsubscription data structure that shall include:

- the Originating MSGin5G Server ID within the "oriAddr" attribute;

- the Recipient MSGin5G Server ID within the "destAddr" attribute;and

may include:

- the security credentials within the "secCred" attribute.

Upon receiving the HTTP POST message from the MSGin5G Server 1, the MSGin5G Server 2 shall make an authorization based on the information received. If the authorization is successful, the MSGin5G Server 2 shall remove the corresponding subscription. If the unsubscription request is successfully processed, the MSGin5G Server 2 shall respond to the MSGin5G Server 1 with an HTTP "204 No Content" status code. If the subscription is not successfully deleted, the MSGin5G Server 2 shall respond to the MSGin5G Server 1 with an HTTP "200 OK" status code, and the response body containing TopicListUnsubscriptionAck data structure that shall contain:

- the Unsubscriptoin Status within the "subStat" attribute.

If errors occur when processing the HTTP POST request, the MSGin5G Server 2 shall apply error handling procedures as specified in clause 8.3.6.

\* \* \* Next Change \* \* \* \*

#### 5.x.2.4 MSGS\_TopiclistEvent\_NotifyMSGTopiclist

##### 5.x.2.4.1 General

This service operation is used by MSGin5G Server 1 to notify another MSGin5G Server 2 about changes of Messaging Topic list, corresponds to clause 9.1.1.6.3 as defined in 3GPP TS 23.554 [2].

##### 5.x.2.4.2 Notification about MSGin5G Messaging Topic List



Figure 5.x.2.4.2-1:MSGin5G Server Notification about Messaging Topic List

As shown in Figure 5.x.2.4.2-1, the MSGin5G Server 1 shall invoke the MSGS\_TopiclistEvent\_NotifyMSGTopiclist service operation to notify about subscribed Messaging Topic list events. The MSGin5G Server 1 shall send HTTP POST request to the MSGin5G Server 2 with "{notificationURI}" previously received in the subscription. The TopicListNotification data structure provided in the request body shall include:

- The Messaging Topic list exists in MSGin5G Server 1within the "msgTopicList" attribute, this attribute may include:

- the unique topic identifier within the "msgTopic" attribute;

- the topic update status indicating if such topic is newly created or deleted within the "updateStat" attribute; and

may include:

- the Expiration within the "exprTime" attribute;

Upon receiving the HTTP POST message from the MSGin5G Server 1, the MSGin5G Server 2 shall make an authorization based on the information received. If the authorization is successful, the MSGin5G Server 2 shall update locally stored Messaging Topic list, and respond to the MSGin5G Server 1 with an HTTP "204 No Content" status code.

If errors occur when processing the HTTP POST request, the MSGin5G Server 2 shall apply error handling procedures as specified in clause 8.3.6.

\* \* \* End of Change \* \* \* \*