**3GPP TSG-CT3 Meeting #134 *C3-242XXX***

**[Changsha](https://www.3gpp.org/ftp/tsg_ct/WG3_interworking_ex-CN3/TSGC3_128_Bratislava/Invitation/" \t "_blank), China, 15th April – 19th April 2024 was C3-242336**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.538** | **CR** | **0050** | **rev** | **1** | **Current version:** | **18.5.0** |  |
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| *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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Editorial fixes on service and API descriptions | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GMARCH\_Ph2 | | | | |  | ***Date:*** | | | 2024-04-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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:*** | | Editorial issues captured in service description and API description clauses including attribute description not aligned to API definition, incorrect title, reference and other wording issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Corrections on service description API description to resolve misalignment and other editorial issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Misalignment between service description and API definition clauses and other editorial issues may misguide reading | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.2.4, 5.4, 6.4.2.2.2, 8.3.2.2.1, 8.3.5.2.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 does not impact the OpenAPI descriptions defined in this specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* First change \* \* \* \*

#### 5.3.2.4 MSGS\_MSGDelivery\_UEODelivery

##### 5.3.2.4.1 General

This service operation corresponds to clause 9.1.1.2.2 as defined in 3GPP TS 23.554 [2], is used by Legacy 3GPP Message Gateway (on behalf of Legacy 3GPP UE), Non-3GPP Message Gateway (on behalf of Non-3GPP UE) or other MSGin5G Server to deliver MSGin5G message to the MSGin5G Server.

##### 5.3.2.4.2 UE Originating Message Delivery

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**Figure 5.3.2.4.2-1: Legacy 3GPP UE or Non-3GPP UE Originating MSGin5G Message Delivery**

When the Legacy 3GPP Message Gateway (on behalf of Legacy 3GPP UE), Non-3GPP Message Gateway (on behalf of Non-3GPP UE) or other MSGin5G Server needs to send the message to the MSGin5G Server, the Legacy 3GPP Message Gateway, Non-3GPP Message Gateway or other MSGin5G Server shall send the HTTP POST method as step 1of the Figure 5.3.2.4.2-1.

The Legacy 3GPP Message Gateway, Non-3GPP Message Gateway or other MSGin5G Server shall include UEMessageDelivery data structure in the content of the HTTP POST request.

The UEMessageDelivery data structure shall include:

- the Originating UE Service ID within the "oriAddr" attribute;

- the Recipient Address within the "destAddr" attribute;

- the Message ID within the "msgId" attribute; and

- the store and forward flag within the "stoAndFwInd" attribute;

and may include:

- the Application ID within the "appId" attribute;

- the Payload within the "payload" attribute;

- the indication whether the message delivery status report is required within the "delivStReqInd" attribute; and

- the message segment flag within the "segInd" attribute;

- the message segment parameters within the "segParams" attribute, this attribute may include:

- the segmentation set identifier within the "segId" attribute;

- the total number of message segments within the "totalSegCount" attribute;

- the message segment number within the "segNumb" attribute;

- the last segment flag within the "lastSegFlag" attribute;

- the store and forward parameters within the "stoAndFwParams" attribute, this attribute may include:

- the message expiration time within the "exprTime" attribute;

When the MSGin5G Server receives the HTTP POST request from the Legacy 3GPP Message Gateway, Non-3GPP Message Gateway or other MSGin5G Server, the MSGin5G Server shall make an authorization based on the information received from the Legacy 3GPP Message Gateway, Non-3GPP Message Gateway or other MSGin5G Server. If the authorization is successful, the MSGin5G Server shall respond to the Legacy 3GPP Message Gateway, Non-3GPP Message Gateway or other MSGin5G Server with a 200 OK message.

If errors occur when processing the HTTP POST request, the MSGin5G Server shall apply error handling procedures as specified in clause 8.2.6.

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

## 5.4 MSGS\_TopiclistEvent Service

### 5.4.1 Service Description

The MSGS\_TopiclistEvent API Service corresponding to Mm5s as defined in 3GPP TS 23.554 [2], is provided by the MSGin5G Server.

This service:

- allows another MSGin5G Server invokes services provided by MSGin5G Server to subscribe or unsubscribe to MSGin5G Messaging Topic;

- allows another MSGin5G Server invokes services provided by MSGin5G Server to subscribe or unsubscribe to MSGin5G Messaging Topic list;

- allows another MSGin5G Server invokes services provided by MSGin5G Server to notify changes of MSGin5G Messaging Topic list;

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

#### 5.4.2.2 MSGS\_TopiclistEvent\_SubscribeMSGTopiclist

##### 5.4.2.2.2 MSGin5G Server subscribing to MSGin5G Messaging Topic List



Figure 5.4.2.2.2-1: 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 Subscriptions" 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;

- a supported features attribute if at least one feature defined is supported;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 Subscription Status within the "subStat" attribute;

- a supported features attribute if at least one feature defined is supported; and may contain

- the Expiration 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 \* \* \* \*

#### 5.4.2.3 MSGS\_TopiclistEvent\_UnsubscribeMSGTopiclist

##### 5.4.2.3.1 General

This service operation is used by MSGin5G Server to subscribe to Messaging Topic list on another MSGin5G Server, corresponds to clause 9.1.1.6.6 as defined in 3GPP TS 23.554 [2].

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

#### 5.4.2.4 MSGS\_TopiclistEvent\_NotifyMSGTopiclist

##### 5.4.2.4.2 Notification about MSGin5G Messaging Topic List



Figure 5.4.2.4.2-1:MSGin5G Server Notification about Messaging Topic List

As shown in Figure 5.4.2.4.2-1, 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 "msgTopics" 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.

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

##### 5.4.2.5.2 MSGin5G Server Subscribing to MSGin5G Messaging Topic



Figure 5.4.2.5.2-1:Subscribing to Messaging Topic List

As shown in Figure 5.4.2.5.2-1, to subscribe MSGin5G Messaging Topic on the MSGin5G Server 2, the MSGin5G Server 1 shall send the HTTP POST method. The body of the HTTP POST message shall include TopicSubscription data structure that shall include:

- the originating UE Service ID/AS Service ID if the MSGin5G Server forwards the request, or the Service ID of MSGin5G Server subscribing topic on behalf of all MSGin5G Clients and Application Servers served by it within the "oriAddr" attribute

- the requested list of Messaging Topic(s) within the "msgTopics" attribute;and

may include:

- the security credentials within the "secCred" attribute;

- the Expiration within the "exprTime" attribute;

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

1. make an authorization based on the information received;

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

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

b. If the requested 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 with an HTTP "200 OK" status code. The response body containing TopicSubscriptionAck 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 \* \* \* \*

#### 5.4.2.6 MSGS\_TopiclistEvent\_UnsubscribeMSGTopic

##### 5.4.2.6.1 General

This service operation is used by MSGin5G Server to unsubscribe to Messaging Topic(s) on another MSGin5G Server, corresponding to clause 9.1.1.6.7 as defined in 3GPP TS 23.554 [2].

##### 5.4.2.6.2 MSGin5G Server Unsubscribing to MSGin5G Messaging Topic



Figure 5.4.2.6.2-1:Unsubscribing to Messaging Topic(s)

As shown in Figure 5.4.2.6.2-1, to unsubscribe one or more MSGin5G Messaging Topic(s) on the MSGin5G Server 2, the MSGin5G Server 1 shall send HTTP POST message to the MSGin5G Server 2. The body of the HTTP POST message shall include TopicUnsubscription data structure that shall include:

- the originating UE Service ID/AS Service ID if the MSGin5G Server forwards the request, or the Service ID of MSGin5G Server unsubscribing topic on behalf of all MSGin5G Clients and Appliation Servers served by it within the "oriAddr" attribute;

- the requested list of Messaging Topic(s) within the "msgTopics" attribute; and

may include:

- the security credentials within the "secCred" attribute;

- the Expiration within the "exprTime" attribute;

Upon receiving the HTTP POST message, 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 and respond 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.

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

##### 6.4.2.2.2 Broadcast Message Gateway Terminating Message Delivery

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Figure 6.4.2.2.2-1: Broadcast Message Gateway Terminating Message Delivery

When the MSGin5G Server needs to send the message to the Broadcast Message Gateway, the MSGin5G Server shall send the HTTP POST request towards the "deliver-message" resource as shown in Figure 6.4.2.2.2-1.

The MSGin5G Server shall send a POST request to the resource with an BgMessageDelivery object in the request body.

The BgMessageDelivery data type shall include:

- the Originating UE Service ID/AS Service ID within the "oriAddr" attribute;

- the Message ID within the "msgId" attribute;

may include:

- the Recipient ID within the "destAddr" attribute;

- the Payload within the "payload" attribute; and

- the Application ID within the "appId" attribute; and

- the indication whether the message delivery status report is required within the "delivStReqInd" attribute;

- the priority type within the "priority" attribute;

- the message segment flag within the "segInd" attribute; and

- the message segment parameters within the "segParams" attribute, this attribute may include:

- the segmentation set identifier within the "segId" attribute;

- the total number of message segments within the "totalSegCount" attribute;

- the message segment number within the "segNumb" attribute; and

- the last segment flag within the "lastSegFlag" attribute;

When the Broadcast Message Gateway receives the HTTP POST request from the MSGin5G Server, the Broadcast Message Gateway shall respond to the MSGin5G Server with a 204 No Content message.

If errors occur when processing the HTTP POST request, the Broadcast Message Gateway shall apply error handling procedures as specified in clause 9.3.6.

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

##### 8.3.2.2.1 Description

This resource represents all the MSGin5G Servers that are subscribed at a given Messaging Topic list on a MSGin5G Server.

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

##### 8.3.5.2.3 Type: TopicListUnsubscription

Table 8.3.5.2.3-1: Definition of type TopicListUnsubscription

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| oriAddr | Address | M | 1 | The service identity of the MSGin5G Server which requests the Messaging Topic list unsubscription. |  |
| destAddr | Address | M | 1 | The service identity of the receiving MSGin5G Server. |  |
| secCred | string | O | 0..1 | Security information required by the MSGin5G Server. |  |

\* \* \* \* End of changes \* \* \* \*