**3GPP TSG-CT3 Meeting #118e C3-215299\_r3**

**E-Meeting, 11th – 15th October 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.522** | **CR** | **0437** | **rev** | **-** | **Current version:** | **17.3.0** |  |
|  |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | New Nnef\_MBSTMGI service definition – OpenAPI part |
|  |  |
| ***Source to WG:*** | Huawei, Nokia, Nokia Shanghai Bell, Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | 5MBS |  | ***Date:*** | 2021-09-30 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | SA2 has further progressed the Stage 2 normative work on 5MBS WI and specified in 3GPP TS 23.247 (clause 9.4) the new NEF services that need to be supported. The new Nnef\_MBSTMGI service exposed by the NEF needs hence to be defined in TS 29.522. |
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| ***Summary of change:*** | This CR proposes to:* Define the OpenAPI part of the new Nnef\_MBSTMGI service exposed by the NEF.
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| ***Consequences if not approved:*** | * 5MBS requirements from Stage 2 on Nnef\_MBSTMGI service is not implemented in Stage 3.
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|  |  |
| ***Clauses affected:*** | A.zz (new Annex) |
|  |  |
|  | **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 introduces a new OpenAPI specification file for the new Nnef\_MBSTMGI API. |
|  |  |
| ***This CR's revision history:*** |  |

\* \* \* Start of changes \* \* \* \*

# A.zz MBSTMGI API

openapi: 3.0.0

info:

 title: 3gpp-mbs-tmgi

 version: 1.0.0-alpha.1

 description: |

 API for the allocation, deallocation and management of TMGI(s) for 5MBS.

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externalDocs:

 description: 3GPP TS 29.522 V17.4.0; 5G System; Network Exposure Function Northbound APIs.

 url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.522/'

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/3gpp-mbs-tmgi/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in subclause 5.2.4 of 3GPP TS 29.122.

paths:

 /allocate:

 post:

 summary: Request the allocation of TMGI(s) for new 5MBS session(s) or the refresh of the expiry time of already allocated TMGI(s).

 operationId: AllocateTmgi

 tags:

 - TMGI Allocation or Timer Expiry Refresh

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TmgiAllocRequest'

 responses:

 '200':

 description: Successful case. The allocated TMGI(s) or a refreshed expiry time for the concerned already allocated TMGI(s) is/are returned to the requesting AF.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TmgiAllocResponse'

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 callbacks:

 TmgiTimerExpiryNotification:

 '{$request.body#/notificationUri}':

 post:

 requestBody:

 description: Represents the TMGI(s) timer expiry notification information (e.g. list of TMGI(s) for which the timer has expired).

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/ExpiryNotif'

 responses:

 '204':

 description: Expected response to a successful callback processing without a body

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 /deallocate:

 post:

 summary: Request the deallocation of TMGI(s).

 requestBody:

 operationId: DeallocateTmgi

 tags:

 - TMGI Deallocation

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TmgiDeallocRequest'

 responses:

 '204':

 description: No Content. Successful case, the TMGI(s) have been deallocated

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 TmgiAllocRequest:

 description: Represents the full set of parameters to initiate a TMGI(s) allocation request or the refresh of the expiry time of already allocated TMGI(s).

 type: object

 properties:

 afId:

 type: string

 tmgiParams:

 $ref: 'TS29532\_Nmbsmf\_TMGI.yaml#/components/schemas/TmgiAllocate'

 notificationUri:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/Uri'

 requestTestNotification:

 type: boolean

 websockNotifConfig:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/WebsockNotifConfig'

 suppFeat:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 required:

 - afId

 - tmgiParams

 TmgiAllocResponse:

 description: Represents TMGI(s) allocation information or the refreshed expiry time for already allocated TMGI(s)

 type: object

 properties:

 tmgiInfo:

 $ref: 'TS29532\_Nmbsmf\_TMGI.yaml#/components/schemas/TmgiAllocated'

 suppFeat:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 required:

 - tmgiInfo

 TmgiDeallocRequest:

 description: Represents information to request the deallocation of TMGI(s).

 type: object

 properties:

 afId:

 type: string

 tmgis:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Tmgi'

 minItems: 1

 required:

 - afId

 - tmgis

 ExpiryNotif:

 description: Represents TMGI(s) timer expiry notification information.

 type: object

 properties:

 tmgis:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Tmgi'

 minItems: 1

 required:

 - tmgis

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