**3GPP TSG-CT3 Meeting #123e C3-224653**

**E-Meeting, 18th – 26th August 2022** (revision of C3-224388)

**Source: Ericsson, Huawei**

**Title: Define OpenAPI file of Nmbsf\_MBSUserService API**

**Spec: 3GPP TS 29.580 v1.0.0**

**Agenda item: 17.31**

**Document for: Decision**

**1. Introduction**

Define the OpenAPI file of Nmbsf\_MBSUserService API.

**2. Reason for Change**

Define the OpenAPI file of Nmbsf\_MBSUserService API.

**3. Conclusions**

Define the OpenAPI file of Nmbsf\_MBSUserService API.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 29.580 v.1.0.0.

\* \* \* 1st Change \* \* \* \*

# A.2 Nmbsf\_MBSUserService API

openapi: 3.0.0

info:

 title: nmbsf-mbs-us

 version: 1.0.0-alpha.1

 description: |

 API for MBS User Service.

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externalDocs:

 description: >

 3GPP TS 29.580 V17.0.0; 5G System; Multicast/Broadcast Service Function Services.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.580/'

servers:

 - url: '{apiRoot}/nmbsf-mbs-us/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501

security:

 - {}

 - oAuth2ClientCredentials:

 - nmbsf-mbs-us

paths:

 /mbs-user-services:

 get:

 summary: Retrieve all the active MBS User Service resources managed by the MBSF.

 tags:

 - MBS User Services (Collection)

 operationId: RetrieveMBSUserServices

 responses:

 '200':

 description: >

 OK. All the active MBS User Services managed by the MBSF are returned.

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 1

 '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'

 '406':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/406'

 '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'

 post:

 summary: Request the creation of a new MBS User Service.

 tags:

 - MBS User Services (Collection)

 operationId: CreateMBSUserService

 requestBody:

 description: >

 Contains the parameters to request the creation of a new MBS User Service at the MBSF.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: >

 Created. A new MBS User Service is successfully created and a representation of the

 created Individual MBS User Service resource is returned.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: >

 Contains the URI of the newly created resource, according to the structure

 {apiRoot}/nmbsf-mbs-us/v1/mbs-user-services/{mbsUserServId}

 required: true

 schema:

 type: string

 '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'

 /mbs-user-services/{mbsUserServId}:

 parameters:

 - name: mbsUserServId

 in: path

 description: Identifier of the Individual MBS User Service resource.

 required: true

 schema:

 type: string

 get:

 summary: Retrieve an existing Individual MBS User Service resource.

 tags:

 - Individual MBS User Service (Document)

 operationId: RetrieveIndMBSUserService

 responses:

 '200':

 description: >

 OK. The requested Individual MBS User Service resource is successfully returned.

 content:

 application/json:

 schema:

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

 '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'

 '406':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/406'

 '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'

 put:

 summary: Request the update of an existing Individual MBS User Service resource.

 tags:

 - Individual MBS User Service (Document)

 operationId: UpdateIndMBSUserService

 requestBody:

 description: >

 Contains the updated representation of the Individual MBS User Service resource.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 OK. The concerned Individual MBS User Service resource is successfully updated and a

 representation of the updated resource is returned in the response body.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 No Content. The concerned Individual MBS User Service resource is successfully updated

 and no content is returned in the response 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'

 patch:

 summary: Request the modification of an existing Individual MBS User Service resource.

 tags:

 - Individual MBS User Service (Document)

 operationId: ModifyIndMBSUserService

 requestBody:

 description: >

 Contains the parameters to request the modification of the Individual MBS User Service

 resource.

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: >

 OK. The concerned Individual MBS User Service resource is successfully modified and a

 representation of the updated resource is returned in the response body.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 No Content. The concerned Individual MBS User Service resource is successfully modified

 and no content is returned in the response 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'

 delete:

 summary: Request the deletion of an existing Individual MBS User Service resource.

 tags:

 - Individual MBS User Service (Document)

 operationId: DeleteIndMBSUserService

 responses:

 '204':

 description: >

 No Content. The concerned Individual MBS User Service resource is successfully deleted.

 '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'

 '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: '{nrfApiRoot}/oauth2/token'

 scopes:

 nmbsf-mbs-us: Access to the Nmbsf\_MBSUserService API

#

# STRUCTURED DATA TYPES

#

 MBSUserService:

 description: Represents the parameters of an MBS User Service.

 type: object

 properties:

 extServiceIds:

 type: array

 items:

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

 minItems: 1

 servType:

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

 servClass:

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

 servAnnModes:

 type: array

 items:

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

 minItems: 1

 servNameDescs:

 type: array

 items:

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

 minItems: 1

 mainServLang:

 type: string

 suppFeat:

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

 required:

 - extServiceIds

 - servType

 - servClass

 - servAnnModes

 - ServNameDescs

 ServiceNameDescription:

 description: >

 Contains per language distinguishing service names and/or service descriptions.

 type: object

 properties:

 servName:

 type: string

 servDescrip:

 type: string

 language:

 type: string

 required:

 - language

 anyOf:

 - required: [servName]

 - required: [servDescrip]

 MBSUserServicePatch:

 description: >

 Contains the parameters to request the modification of an existing Individual MBS User

 Service resource.

 type: object

 properties:

 extServiceIds:

 type: array

 items:

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

 minItems: 1

 servClass:

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

 servAnnModes:

 type: array

 items:

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

 minItems: 1

 servNameDescs:

 type: array

 items:

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

 minItems: 1

 mainServLang:

 type: string

# SIMPLE DATA TYPES

#

#

# ENUMERATIONS

#

 ServiceAnnouncementMode:

 oneOf:

 - type: string

 enum:

 - VIA\_MBS-5

 - VIA\_MBS\_DISTRIBUTION\_SESSION

 - PASSED\_BACK

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration but is not used to encode

 content defined in the present version of this API.

 description: |

 Possible values are:

 - VIA\_MBS-5: Indicates the MBS User Service Announcement compiled by the MBSF is advertised to the MBSF Client at reference point MBS-5.

 - VIA\_MBS\_DISTRIBUTION\_SESSION: Indicates the MBS User Service Announcement compiled by the MBSF is advertised to the MBSF Client via the MBS Distribution Session.

 - PASSED\_BACK: MBS User Service Announcement compiled by the MBSF is passed back to the MBS Application Provider.

\*\*\* End of Changes \*\*\*