**3GPP TSG-CT WG3 Meeting #125 *C3-225186\_R1***

**Toulouse, France, 14th – 18th November 2022**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **29.486** | **CR** | **0089** | **rev** | **-** | **Current version:** | **17.6.0** |  |
|  |
| *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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | Correction the enumerations in the VAE OpenAPI files |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | NBI18 |  | ***Date:*** | 2022-11-01 |
|  |  |  |  |  |
| ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Clause 5.2.9.10 of 3GPP TS 29.122 specifies for the enumeration definition in the OpenAPI file that the schema:- shall contain the "anyOf" keyword listing as alternatives:1. the "type: string" keyword and the "enum" keyword with a list of all defined values for the enumeration; and2. the "type: string" keyword and the "description" keyword with a description stating that the string is only provided for extensibility and is not used to encode contents defined in the present version of the specification. And- may contain a description listing the defined values of the enumeration together with explanations of those values.However, the VAE OpenAPI files are not aligned with the above requirement from clause 5.2.9.10, i.e., in definition of ResultReason enumeration, description of the string data type provided for forward compatibility with future extensions is incorrect. |
|  |  |
| ***Summary of change:*** | This CR introduces the correction for the enumerations in OpenAPI file according to clause 5.2.9.10 of 3GPP TS 29.122. |
|  |  |
| ***Consequences if not approved:*** | * Misalignment with the requirements defined in 3GPP TS 29.122 and 3GPP TS 29.501.
 |
|  |  |
| ***Clauses affected:*** | A.2; A.3; A.4; A.8; |
|  |  |
|  | **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 backwards compatible correction of the OpenAPI file for the VAE\_MessageDelivery API, VAE\_FileDistribution API, VAE\_ApplicationRequirement API, VAE\_SessionOrientedService API.
 |
| ***()*** |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

\* \* \* First Change \* \* \* \*

# A.2 VAE\_MessageDelivery API

openapi: 3.0.0

info:

 version: 1.1.0

 title: VAE\_MessageDelivery

 description: |

 API for VAE Message Delivery Service

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externalDocs:

 description: 3GPP TS 29.486 V17.5.0 V2X Application Enabler (VAE) Services

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.486/'

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/vae-message-delivery/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /subscriptions:

 post:

 summary: Create a new Individual Message Delivery Data Subscription resource

 operationId: CreateIndividualMessageDeliveryDataSubscription

 tags:

 - Message Delivery Data Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: The subscription was created successfully.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 uplinkMessageDelivery:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was successful

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 receptReportOfDownlinkMesageDelivery:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was successful

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /subscriptions/{subscriptionId}:

 get:

 summary: Get an existing individual Message Delivery Subscription resource

 operationId: ReadIndividualMessageDeliverySubscription

 tags:

 - Individual Message Delivery Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Message Delivery Subscription

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The subscription information is returned.

 content:

 application/json:

 schema:

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

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete an individual Message Delivery Subscription resource

 operationId: DeleteMessageDeliverySubscription

 tags:

 - Individual Message Delivery Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Message Delivery Subscription

 required: true

 schema:

 type: string

 responses:

 '204':

 description: The subscription was terminated successfully.

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /subscriptions/{subscriptionId}/message-deliveries:

 post:

 summary: VAE Message delivery resource create service Operation

 tags:

 - message deliveries collection (Collection)

 operationId: CreateDownlinkMessageDelivery

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Message Delivery Subscription

 required: true

 schema:

 type: string

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Downlink Message Delivery Resource Created

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /subscriptions/{subscriptionId}/message-deliveries/{dlDeliveryId}:

 get:

 summary: VAE Message delivery resource Read service Operation

 tags:

 - Individual downlink message delivery (Document)

 operationId: ReadIndividualDownlinkMessageDelivery

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Message Delivery Subscription

 required: true

 schema:

 type: string

 - name: dlDeliveryId

 in: path

 description: Identifier of a downlink messge delivery resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Resource representation is returned

 content:

 application/json:

 schema:

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

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: VAE Message delivery resource delete service Operation

 tags:

 - Individual message delivery (Document)

 operationId: DeleteMessageDelivery

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Message Delivery Subscription

 required: true

 schema:

 type: string

 - name: dlDeliveryId

 in: path

 required: true

 description: Unique ID of the message delivery to be deleted

 schema:

 type: string

 responses:

 '204':

 description: No Content (Successful deletion of the existing subscription)

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 DownlinkMessageDeliveryData:

 description: Contains the downlink V2X message delivery data.

 type: object

 properties:

 ueId:

 $ref: '#/components/schemas/V2xUeId'

 groupId:

 $ref: '#/components/schemas/V2xGroupId'

 duration:

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

 geoId:

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

 payload:

 $ref: '#/components/schemas/V2xMessagePayload'

 required:

 - payload

 MessageDeliverySubscriptionData:

 description: Represents the V2X message delivery subscription data.

 type: object

 properties:

 appSerId:

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

 serviceId:

 $ref: '#/components/schemas/V2xServiceId'

 geoId:

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

 notifUri:

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

 requestTestNotification:

 type: boolean

 description: >

 Set to true by the NF service consumer to request the VAE server to send a test

 notification as defined in clause 6.1.5.3. Set to false or omitted otherwise.

 websockNotifConfig:

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

 suppFeat:

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

 required:

 - appSerId

 - serviceId

 - notifUri

 UplinkMessageDeliveryData:

 description: Represents the uplink V2X message delivery data.

 type: object

 properties:

 resourceUri:

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

 ueId:

 $ref: '#/components/schemas/V2xUeId'

 geoId:

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

 payload:

 $ref: '#/components/schemas/V2xMessagePayload'

 required:

 - resourceUri

 - ueId

 - payload

 Result:

 description: Contains the result of downlink message delivery.

 anyOf:

 - type: string

 enum:

 - SUCCESS

 - FAIL

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration and is not used to encode

 content defined in the present version of this API.

 AppServerId:

 description: Represents the V2X application specific server identifier.

 type: string

 V2xUeId:

 description: Represents the identifier of the V2X UE.

 type: string

 V2xGroupId:

 description: Represents the group ID for which a V2X message is addressed.

 type: string

 V2xServiceId:

 description: Represents the V2X service ID to which a V2X message belongs.

 type: string

 GeoId:

 description: Represents a geographical area identifier.

 type: string

 V2xMessagePayload:

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

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

# A.3 VAE\_FileDistribution API

openapi: 3.0.0

info:

 version: 1.1.0

 title: VAE\_FileDistribution

 description: |

 API for VAE File Distribution Service

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externalDocs:

 description: 3GPP TS 29.486 V17.5.0 V2X Application Enabler (VAE) Services

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.486/'

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/vae-file-distribution/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /file-distributions:

 post:

 summary: VAE File Distributions resource create service Operation

 tags:

 - file distributions collection (Document)

 operationId: CreateFileDistributions

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: File Distribution Resource Created

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

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

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /file-distributions/{distributionId}:

 get:

 summary: Get an existing individual file distribution resource

 operationId: ReadIndividualFileDistribution

 tags:

 - Individual File Distribution (Document)

 parameters:

 - name: distributionId

 in: path

 description: Identifier of a file distribution resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Resource representation is returned

 content:

 application/json:

 schema:

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

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: VAE File Distribution resource delete service Operation

 tags:

 - Individual file distribution (Document)

 operationId: DeleteFileDistribution

 parameters:

 - name: distributionId

 in: path

 required: true

 description: Unique ID of the file distribution to be deleted

 schema:

 type: string

 responses:

 '204':

 description: The subscription was terminated successfully.

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 FileDistributionData:

 description: Represents an individual File Distribution resource for a V2X group ID.

 type: object

 properties:

 groupId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/V2xGroupId'

 fileLists:

 type: array

 items:

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

 minItems: 1

 serviceClass:

 type: string

 geoArea:

 $ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/GeographicArea'

 maxBitrate:

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

 maxDelay:

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

 localMbmsInfo:

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

 localMbmsActInd:

 type: boolean

 suppFeat:

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

 required:

 - fileLists

 - geoArea

 - maxBitrate

 - maxDelay

 FileList:

 description: Represents a file list.

 type: object

 properties:

 fileUri:

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

 fileDisplayUri:

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

 fileEarFetchTime:

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

 fileLatFetchTime:

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

 fileSize:

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

 fileStatus:

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

 completionTime:

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

 keepUpdateInterval:

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

 uniAvailability:

 type: boolean

 fileRepetition:

 type: integer

 required:

 - fileUri

 - fileDisplayUri

 - fileEarFetchTime

 - fileLatFetchTime

 - fileStatus

 - completionTime

 - keepUpdateInterval

 LocalMbmsInfo:

 description: Contains the local MBMS information.

 type: object

 properties:

 mbmsEnbIpv4MulAddr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

 mbmsEnbIpv6MulAddr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

 mbmsGwIpv4SsmAddr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

 mbmsGwIpv6SsmAddr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

 cteid:

 type: string

 bmscIpv4Addr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

 bmscIpv6Addr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

 bmscPort:

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

 FileStatus:

 description: Represents a file status.

 anyOf:

 - type: string

 enum:

 - PENDING

 - FETCHED

 - PREPARED

 - TRANSMITTING

 - SENT

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration and is not used to encode

 content defined in the present version of this API.

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

# A.4 VAE\_ApplicationRequirement API

openapi: 3.0.0

info:

 version: 1.1.0

 title: VAE\_ApplicationRequirement

 description: |

 API for VAE Application Requirement Service

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externalDocs:

 description: 3GPP TS 29.486 V17.5.0 V2X Application Enabler (VAE) Services

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.486/'

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/vae-app-req/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /application-requirements:

 post:

 summary: VAE\_Application\_Requirements resource create service Operation

 tags:

 - application requirements collection (Document)

 operationId: CreateApplicationRequirement

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Application Requirement Resource Created

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 NotifyNetworkResource:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was succesfull

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-requirements/{requirementId}:

 get:

 summary: VAE Application Requirement resource read service Operation

 tags:

 - Individual application requirement (Document)

 operationId: ReadApplicationRequirement

 parameters:

 - name: requirementId

 in: path

 description: Identifier of an application requirement resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Resource representation is returned

 content:

 application/json:

 schema:

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

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: VAE Application Requirement resource delete service Operation

 tags:

 - Individual application requirement (Document)

 operationId: DeleteApplicationRequirement

 parameters:

 - name: requirementId

 in: path

 required: true

 description: Unique ID of the application requirement to be deleted

 schema:

 type: string

 responses:

 '204':

 description: The subscription was terminated successfully.

 '307':

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

 '308':

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

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 ApplicationRequirementData:

 description: Represents an individual Application Requirement resource for a V2X UE ID or a V2X group ID.

 type: object

 properties:

 ueId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/V2xUeId'

 groupId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/V2xGroupId'

 duration:

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

 serviceId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/V2xServiceId'

 appRequirement:

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

 notifUri:

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

 requestTestNotification:

 type: boolean

 description: >

 Set to true by the NF service consumer to request the VAE server to send a test

 notification as defined in clause 6.3.5.3. Set to false or omitted otherwise.

 websockNotifConfig:

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

 suppFeat:

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

 required:

 - serviceId

 - appRequirement

 - notifUri

 ApplicationRequirement:

 description: Represents the requirements for application change.

 type: object

 properties:

 serviceLevel:

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

 AppReqNotification:

 description: >

 Represents a notificaton of the result of the network resource adaptation corresponding to

 the V2X application requirement.

 type: object

 properties:

 resourceUri:

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

 result:

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

 required:

 - resourceUri

 - result

 ServiceLevel:

 description: Indicates a service level for application service.

 anyOf:

 - type: string

 enum:

 - HIGH

 - MEDIUM

 - LOW

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration and is not used to encode

 content defined in the present version of this API.

 ReservationResult:

 description: Represents the result of the network resource adaptation corresponding to the V2X application requirement.

 anyOf:

 - type: string

 enum:

 - SUCCESSFUL

 - FAILURE

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration and is not used to encode

 content defined in the present version of this API.

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

# A.8 VAE\_SessionOrientedService

openapi: 3.0.0

info:

 version: 1.0.0

 title: VAE\_SessionOrientedService

 description: |

 API for VAE\_SessionOrientedService

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externalDocs:

 description: 3GPP TS 29.486 V17.5.0 V2X Application Enabler (VAE) Services

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.486/'

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/vae-session-Oriented-service/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /subscriptions:

 post:

 summary: VAE\_SessionOrientedService resource create service Operation

 tags:

 - session oriented service subscriptions collection (Document)

 operationId: Create

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Session Oriented Service Subscription Resource Created

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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:

 NotifyResutOfSessionOrientedService:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was succesfull

 '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'

 /subscriptions/{subscriptionId}:

 get:

 summary: VAE Session Oriented Service Subscription resource read service Operation

 tags:

 - Individual Session Oriented Service Subscription (Document)

 operationId: ReadSessionOrientedServiceSubscription

 parameters:

 - name: subscriptionId

 in: path

 description: Identifier of an Session Oriented Service Subscription resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Resource representation is returned

 content:

 application/json:

 schema:

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

 '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: Updates/replaces an existing subscription resource

 tags:

 - VAE Session Oriented Service Subscription resource put service Operation

 parameters:

 - name: subscriptionId

 in: path

 description: Identifier of an Session Oriented Service Subscription resource

 required: true

 schema:

 type: string

 requestBody:

 description: Parameters to update/replace the existing subscription

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK (Successful update of the subscription)

 content:

 application/json:

 schema:

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

 '204':

 description: No Content (Successful update of the subscription)

 '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: VAE Session Oriented Service Subscription resource delete service Operation

 tags:

 - Individual Session Oriented Service Subscription (Document)

 operationId: DeleteSessionOrientedServiceSubscription

 parameters:

 - name: subscriptionId

 in: path

 required: true

 description: Unique ID of the Session Oriented Service Subscription n to be deleted

 schema:

 type: string

 responses:

 '204':

 description: The subscription was terminated successfully.

 '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: '{tokenUrl}'

 scopes: {}

 schemas:

 SessionOrientedData:

 description: Represents an Individual Session Oriented Service Subscription resource.

 type: object

 properties:

 ueId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/V2xUeId'

 notifUri:

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

 serviceId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/V2xServiceId'

 appSerId:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/AppServerId'

 appQosReq:

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

 requestTestNotification:

 type: boolean

 description: >

 Set to true by the NF service consumer to request the VAE server to send a test

 notification as defined in clause 6.3.5.3. Set to false or omitted otherwise.

 websockNotifConfig:

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

 suppFeat:

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

 required:

 - ueId

 - notifUri

 - serviceId

 - appSerId

 Notification:

 description: Represents a notificaton of result of Session Oriented Service.

 type: object

 properties:

 resourceUri:

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

 action:

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

 result:

 $ref: 'TS29486\_VAE\_MessageDelivery.yaml#/components/schemas/Result'

 required:

 - resourceUri

 - action

 - result

 AppplicationQosRequirement:

 description: Represents application layer QoS requirement.

 type: object

 properties:

 pqi:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/5Qi'

 resourceType:

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

 priorityLevel:

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

 packetDelayBudget:

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

 packetErrorRate:

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

 averagingWindow:

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

 maxDataBurstVol:

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

 Action:

 description: Indicate the action to the session-oriented service.

 anyOf:

 - type: string

 enum:

 - ESTABLISHMENT

 - UPDATE

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration and is not used to encode

 content defined in the present version of this API.

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