**3GPP TSG-CT WG3 Meeting #130 *C3-234353\_R1***

**Xiamen, China, 09th – 13th October, 2023**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **29.549** | **CR** | **0179** | **rev** | **-** | **Current version:** | **18.3.0** |  |
|  |
| *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)*.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Subscribe/Notify service operation OpenAPI implementation in the SS\_VALServiceAreaConfiguration API |
|  |  |
| ***Source to WG:*** | Ericsson, Samsung |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | SEAL\_Ph3 |  | ***Date:*** | 2023-09-21 |
|  |  |  |  |  |
| ***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 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:*** | Clauses 9.4.8.6, 9.4.8.7, and 9.4.8.8 of 23.434 (see CR#0228 of 23.434) specify the subscribe/notify service operations for the SS\_VALServiceAreaConfiguration API. Thus, the specified service operations shall be implemented in stage 3. |
|  |  |
| ***Summary of change:*** | This CR introduces the OpenAPI implementation of the subscribe/notify service operations for the SS\_VALServiceAreaConfiguration API. |
|  |  |
| ***Consequences if not approved:*** | Misalignment with stage 2 requirements. |
|  |  |
| ***Clauses affected:*** | A.12 |
|  |  |
|  | **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 provides backward compatible correction of the SS\_VALServiceAreaConfiguration API.
 |
| ***()*** |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

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

# A.12 SS\_VALServiceAreaConfiguration API

openapi: 3.0.0

info:

 title: SS\_VALServiceAreaConfiguration

 description: |

 API for SEAL VAL Service Area Configuration Service.

 © 2023, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).

 All rights reserved.

 version: "1.0.0-alpha.1"

externalDocs:

 description: >

 3GPP TS 29.549 V18.2.0 Service Enabler Architecture Layer for Verticals (SEAL);

 Application Programming Interface (API) specification; Stage 3.

 url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.549/

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/ss-vsac/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 6.5 of 3GPP TS 29.549

paths:

 /areas:

 get:

 summary: Obtain the VAL service area(s) according to the provided filtering criteria.

 operationId: ObtainValServiceAreas

 tags:

 - VAL Service Areas (Collection)

 parameters:

 - name: val-svc-area-ids

 in: query

 description: Represents the requested VAL service areas.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: supp-feats

 in: query

 description: To filter irrelevant responses related to unsupported features.

 required: false

 schema:

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

 responses:

 '200':

 description: The requested VAL service areas information is returned.

 content:

 application/json:

 schema:

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

 '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'

 /areas/configure:

 post:

 summary: Configure VAL service area(s).

 operationId: ConfigureValServiceAreas

 tags:

 - Configure

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 Successful case. The identifier(s) of the configured VAL service area(s) information are

 Returned in the response body.

 content:

 application/json:

 schema:

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

 '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'

 /areas/update:

 post:

 summary: Update existing VAL service area(s).

 operationId: UpdateValServiceAreas

 tags:

 - Update

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 Successful case. The identifier(s) of the updated VAL service area(s) information are

 returned in the response body.

 content:

 application/json:

 schema:

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

 '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'

 /areas/delete:

 post:

 summary: Delete existing VAL service area(s).

 operationId: DeleteValServiceAreas

 tags:

 - Delete

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 Successful case. The identifier(s) of the deleted VAL service area(s) information are

 returned in the response body.

 content:

 application/json:

 schema:

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

 '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:

 post:

 summary: Create individual VAL service area change event(s) subscription.

 operationId: SubscribeChangeEvents

 tags:

 - VAL Service Area Change Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: >

 The requested individual VAL service area change event(s) subscription

 resource is successfully created and a representation of the created

 resource is returned in the response body.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: Contains the URI of the newly created resource.

 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'

 callbacks:

 NotifyValServiceAreaChange:

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

 post:

 summary: Notify on changes of the VAL service area(s) accodring to the requested reporting settings.

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The notification is successfully received.

 '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}:

 delete:

 summary: Remove the existing individual VAL service area change event(s) subscription resource according to the subscriptionId.

 operationId: UnsubscribeValServiceAreaChange

 tags:

 - Individual VAL Service Area Change Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Represents the identifier of an individual VAL service area change event(s)

 subscription resource.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: >

 The individual VAL service area change event(s) subscription resource

 matching the subscriptionId is 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'

 get:

 summary: Read an existing individual unicast monitoring subscription resource according to the subscriptionId.

 operationId: ReadValServiceAreaChange

 tags:

 - Individual VAL Service Area Change Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Represents the identifier of an individual VAL service area change event(s)

 subscription resource.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: >

 The requested individual VAL service area change event(s) subscription is returned.

 content:

 application/json:

 schema:

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

 '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:

 ValServiceArea:

 description: Represents the VAL service area.

 type: object

 properties:

 valSvcAreaId:

 description: Represents the VAL service area ID.

 type: string

 locations:

 description: Represents the locations associated with the VAL service area.

 minItems: 1

 items:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/LocationArea5G'

 required:

 - valSvcAreaId

 - locations

 ValServiceAreaReq:

 description: Represents the VAL service area configuration/update/delete request.

 type: object

 properties:

 valSvcAreas:

 description: Represents the VAL service area(s).

 minItems: 1

 items:

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

 suppFeat:

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

 required:

 - valSvcAreas

 ValServiceAreaData:

 description: Represents the VAL service area retrieval information.

 type: object

 properties:

 valSvcAreas:

 description: Represents the requested VAL service area(s).

 minItems: 1

 items:

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

 suppFeat:

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

 ValServiceAreaResp:

 description: Represents the VAL service area configuration/update/delete response.

 type: object

 properties:

 valSvcAreaIds:

 description: Represents the identifier(s) of the successfully handled VAL service area(s).

 minItems: 1

 items:

 type: string

 suppFeat:

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

 required:

 - valSvcAreaIds

 ValServiceAreaSubsc:

 description: Represents the VAL service area change event(s) subscription.

 type: object

 properties:

 events:

 description: Represents the subscribed VAL service area change event(s).

 minItems: 1

 items:

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

 notifUri:

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

 subscDur:

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

 suppFeat:

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

 required:

 - events

 - notifUri

 ValServiceAreaEventType:

 description: Represents the VAL service area change event type.

 type: object

 properties:

 event:

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

 valSvcAreaIds:

 description: Represents the VAL service area ID(s) associated with the event.

 minItems: 1

 items:

 type: string

 required:

 - event

 - valSvcAreaIds

 ValServiceAreaNotif:

 description: Represents the VAL service area change event(s) notifcation.

 type: object

 properties:

 valSvcAreaConts:

 description: Represents the VAL service area change event(s) content.

 minItems: 1

 items:

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

 required:

 - valSvcAreaConts

 ValServiceAreaEventInfo:

 description: Represents the VAL service area change event(s) content.

 type: object

 properties:

 event:

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

 valSvcAreas:

 description: Represents the VAL service area(s) associated with the event.

 minItems: 1

 items:

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

 valSvcAreaIds:

 description: Represents the VAL service area(s) associated with the event.

 minItems: 1

 items:

 type: string

 required:

 - event

# Simple data types and Enumerations

 ValServiceAreaEvent:

 anyOf:

 - type: string

 enum:

 - UPDATE

 - DELETE

 - 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.

 description: |

 Represents the VAL service area change event.

 Possible values are:

 - UPDATE: Indicates that the VAL service area change event is VAL service area update.

 - DELETE: Indicates that the VAL service area change event is VAL service area delete.

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