**3GPP TSG-CT WG3 Meeting #132C3-240174**

**E-Meeting, 22nd – 24th January, 2024 (revision of C3-240093)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.549** | **CR** | **0225** | **rev** | **1** | **Current version:** | **18.4.0** |  |
|  | | | | | | | | |
| *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:*** | Define OpenAPI of SS\_AADRF\_DataManagement API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ADAES | | | | |  | ***Date:*** | | | 2024-01-10 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | The A-ADRF related services defined in clause 9.3 of TS 23.436 need to be supported in stage 3. CT3 considers to merge these A-ADRF APIs into one general data management API in stage 3 for the following reasons:   * These five APIs are all used for data retrieval from the A-ADRF which means they belong to the same overall functionality. * If the consumer needs to retrieve several types of data from the A-ADRF simultaneously, it only needs to invoke one service instead of invoking several services.   There are a lot of duplicated information in the different subscriptions/requests and notifications/responses, and merging these APIs will make it much easier for us to maintain them in the future. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Define the OpenAPI of SS\_AADRF\_DataManagement API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The stage 2 requirement is not implemented. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.15(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | The CR introduces a new OpenAPI file of SS\_AADRF\_DataManagement API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

# A.15 SS\_AADRF\_DataManagement API

openapi: 3.0.0

info:

title: SS\_AADRF\_DataManagement

description: |

API for A-ADRF Data Management Service.

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version: "1.0.0-alpha.1"

externalDocs:

description: >

3GPP TS 29.549 V18.5.0 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-aadrf-datamanagement/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/subscriptions:

post:

summary: Create Individual A-ADRF Data Management Subscription.

operationId: CreateAADRFEventSubscription

tags:

- A-ADRF Data Management Subscriptions (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: >

The requested Individual A-ADRF Data Management Subscription is successfully created and

a representation of the created resource is returned in the response body.

content:

application/json:

schema:

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

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:

myNotification:

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

post:

summary: Notify on the requested data.

requestBody:

required: true

content:

application/json:

schema:

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

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}:

parameters:

- name: subscriptionId

in: path

description: >

Represents the Individual A-ADRF Data Management Subscription resource.

required: true

schema:

type: string

delete:

summary: Remove the Individual A-ADRF Data Management Subscription.

operationId: UnsubscribeAADRFEventSubscription

tags:

- Individual A-ADRF Data Management Subscription (Document).

responses:

'204':

description: >

The individual A-ADRF Data Management 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'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

DataManageSub:

description: Represents the event subscriptions.

type: object

properties:

eventSubscriptions:

type: array

items:

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

minItems: 1

description: Subscribed events.

notifUri:

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

notifCorrId:

type: string

description: Notification correlation identifier.

supportedFeatures:

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

required:

- eventSubscriptions

- notifUri

EventSubscription:

description: Represents the event subscription.

type: object

properties:

event:

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

dataCollectReq:

type: string

dataProducerIds:

type: array

items:

type: string

minItems: 1

description: The list of Data Producer IDs.

valUes:

type: array

items:

$ref: 'TS29549\_SS\_UserProfileRetrieval.yaml#/components/schemas/ValTargetUe'

minItems: 1

description: The target VAL UE(s) identifiers.

valServerId:

type: string

description: The target VAL server ID.

valServiceId:

type: string

description: The VAL service ID.

profileCriteria:

type: string

validConds:

$ref: 'TS29549\_SS\_Events.yaml#/components/schemas/ValidityConditions'

snssais:

type: array

items:

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

minItems: 1

description: Identification(s) of network slice(s) to which the subscription applies.

edgeReq:

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

apiLogReq:

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

required:

- event

EdgeReq:

description: Represents the EDGE data request requirement.

type: object

properties:

dnais:

type: array

items:

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

minItems: 1

description: Identifiers the DN Access Identifier.

dnns:

type: array

items:

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

minItems: 1

description: Identifiers the DN Access Identifier.

destEasId:

type: string

description: Identifier for the destination EAS.

destEesId:

type: string

description: Identifier for the destination EES.

anyOf:

- required: [dnais]

- required: [dnns]

- required: [destEasId]

- required: [destEesId]

ApiLogReq:

description: Represents the API log request requirement.

type: object

properties:

apiRequestorInfo:

type: string

apiId:

type: string

description: String identifying the API invoked.

apiName:

type: string

description: Name of the API which was invoked.

apiVersion:

type: string

description: Version of the API which was invoked.

inputParameters:

type: array

items: {}

minItems: 1

description: List of input parameters.

result:

type: string

description: For HTTP protocol, it contains HTTP status code of the invocation.

apiInvokerId:

type: string

description: Identity of the API invoker which invoked the service API.

exposureLvl:

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

apiAggreInfo:

type: string

required:

- apiRequestorInfo

DataManageNotification:

description: Represents the notification to the consumer.

type: object

properties:

event:

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

notifCorrId:

type: string

description: Notification correlation identifier.

valServerId:

type: string

description: The target VAL server ID.

valServiceId:

type: string

description: The VAL service ID.

valUeIds:

type: array

items:

$ref: 'TS29549\_SS\_UserProfileRetrieval.yaml#/components/schemas/ValTargetUe'

minItems: 1

description: The target VAL UE(s) identifiers.

locAccuracy:

type: string

validConds:

$ref: 'TS29549\_SS\_Events.yaml#/components/schemas/ValidityConditions'

apiLog:

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

rttDeviation:

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

snssais:

type: array

items:

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

minItems: 1

description: Identification(s) of network slice(s) to which the subscription applies.

edgeInfo:

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

required:

- event

ApiLogInfo:

description: Represents the API log data.

type: object

properties:

apiId:

type: string

description: String identifying the API invoked.

apiName:

type: string

description: Name of the API which was invoked.

failNum:

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

apiAvailableInd:

type: boolean

description: Indicates the API availability.

apiVerChgNum:

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

apiLocChg:

type: boolean

description: Indicates the API location changes for the target API.

apiThrottlingEvents:

type: string

invokeNum:

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

apiVersion:

type: string

description: Version of the API which was invoked.

required:

- apiId

EdgeInfo:

description: Represents the EDGE related data.

type: object

properties:

edgeReq:

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

output:

type: string

# Simple data types and Enumerations

AadrfEvent:

anyOf:

- type: string

enum:

- HISTORICAL\_SERVICEAPI

- NETWORK\_SLICE

- EDGE\_DATA

- LOCATION\_ACCURACY

- 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: |

Indicates the subscribed events.

Possible values are:

- HISTORICAL\_SERVICEAPI: The event for historical service API logs.

- NETWORK\_SLICE: The event for the network slice data.

- EDGE\_DATA: The event for the EDGE related data.

- LOCATION\_ACCURACY: The event for the location accuracy data.

ExposureLevel:

anyOf:

- type: string

enum:

- READ

- WRITE

- 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: |

Indicates the exposure level.

Possible values are:

- READ: The exposure level for the logs to be exposed is read.

- WRITE: The exposure level for the logs to be exposed is write.

- DELETE: The exposure level for the logs to be exposed is delete.

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