**3GPP TSG-CT WG3 Meeting #122eC3-223719**

**E-Meeting, 12th – 20th May 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.522** | **CR** | **0636** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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:*** | Update of info and externalDocs fields | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2022-05-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | During this plenary cycle (2022-Q2), there have been some backwards compatible changes / corrections / addition of new features to the following NEF APIs defined in TS 29.522. In addition, since the stage 3 of the current 3GPP release, i.e. Rel-17, will be frozen for OpenAPI descriptions, the API version needs to be updated as per the guidelines defined in clause 4.3.1 of TS 29.501, i.e. the "-alpha.n" suffix should be removed.  The following agreed CRs update the OpenAPI file of the **TrafficInfluence API** for the present release:   * TS 29.522 CR#0618 introduces a backwards compatible correction   The API version need to be updated from 1.2.0-alpha.**5** to 1.2.0  The following agreed CRs update the OpenAPI file of the **NiddConfigurationTrigger API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**1** to 1.1.0  The following agreed CRs update the OpenAPI file of the **AnalyticsExposure API** for the present release:   * TS 29.522 CR#0550 introduces a backwards compatible feature * TS 29.522 CR#0551 introduces a backwards compatible feature * TS 29.522 CR#0552 introduces a backwards compatible feature * TS 29.522 CR#0585 introduces a backwards compatible feature * TS 29.522 CR#0586 introduces a backwards compatible feature * TS 29.522 CR#0601 introduces a backwards compatible feature * TS 29.522 CR#0615 introduces a backwards compatible feature   The API version need to be updated from 1.1.0-alpha.**2** to 1.1.0  The following agreed CRs update the OpenAPI file of the **5GLANParameterProvision API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**3** to 1.1.0  The following agreed CRs update the OpenAPI file of the **ApplyingBdtPolicy API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**2** to 1.1.0  The following agreed CRs update the OpenAPI file of the **IPTVConfiguration API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**3** to 1.1.0  The following agreed CRs update the OpenAPI file of the **LpiParameterProvision API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**2** to 1.1.0  The following agreed CRs update the OpenAPI file of the **ServiceParameter API** for the present release:   * TS 29.522 CR#0565 introduces a backwards compatible correction * TS 29.522 CR#0582 introduces a backwards compatible correction * TS 29.522 CR#0583 introduces a backwards compatible correction * TS 29.522 CR#0634 introduces a backwards compatible correction   The API version need to be updated from 1.1.0-alpha.**3** to 1.1.0  The following agreed CRs update the OpenAPI file of the **ACSParameterProvision API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**2** to 1.1.0  The following agreed CRs update the OpenAPI file of the **MoLcsNotify API** for the present release:   * None.   The API version need to be updated from 1.1.0-alpha.**1** to 1.1.0  The following agreed CRs update the OpenAPI file of the **AKMA API** for the present release:   * None.   The API version need to be updated from 1.0.0-alpha.**5** to 1.0.0  The following agreed CRs update theOpenAPI file of the **TimeSyncExposure API** for the present release:   * TS 29.522 CR#0568 introduces a backwards compatible correction * TS 29.522 CR#0569 introduces a backwards compatible correction * TS 29.522 CR#0591 introduces a backwards compatible correction * TS 29.522 CR#0614 introduces a backwards compatible correction * TS 29.571 CR#0354 introduces a backwards compatible correction   The API version need to be updated from 1.0.0-alpha.**4** to 1.0.0  The following agreed CRs update theOpenAPI file of the **EcsAddressProvision API** for the present release:   * None.   The API version need to be updated from 1.0.0-alpha.**4** to 1.0.0  The following agreed CRs update theOpenAPI file of the **AmPolicyAuthorization API** for the present release:   * None.   The API version need to be updated from 1.0.0-alpha.**4** to 1.0.0  The following agreed CRs update theOpenAPI file of the **AMInfluence API** for the present release:   * TS 29.522 CR#0584 introduces a backwards compatible correction * TS 29.522 CR#0592 introduces a backwards compatible correction * TS 29.522 CR#0593 introduces a backwards compatible correction   The API version need to be updated from 1.0.0-alpha.**2** to 1.0.0  The following agreed CRs update theOpenAPI file of the **MBSTMGI API** for the present release:   * None.   The API version need to be updated from 1.0.0-alpha.**2** to 1.0.0  The following agreed CRs update theOpenAPI file of the **MBSSession API** for the present release:   * TS 29.522 CR#0616 introduces a backwards compatible correction * TS 29.522 CR#0617 introduces a backwards compatible correction * TS 29.571 CR#0348 introduces a backwards compatible feature   The API version need to be updated from 1.0.0-alpha.**2** to 1.0.0  The following agreed CRs update theOpenAPI file of the **EASDeployment API** for the present release:   * TS 29.522 CR#0595 introduces a backwards compatible correction * TS 29.522 CR#0613 introduces a backwards compatible correction   The API version need to be updated from 1.0.0-alpha.**1** to 1.0.0  The "externalDocs" object description field is also be updated to "v17.**6**.0" for these APIs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The CR proposes the following changes:   * Update the pre-release version number from "a.b.c-alpha.**n**" to "a.b.c" for the above listed APIs. * Update the TS version number in "externalDocs" object description field to "v17.**6**.0". | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | OpenAPI version and the "externalDocs" object description field are not updated in the OpenAPI files impacted by the agreed CRs during Q2-2022 plenary cycle in CT3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

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

# A.2 TrafficInfluence API

openapi: 3.0.0

info:

title: 3gpp-traffic-influence

version: 1.2.0

description: |

API for AF traffic influence

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-traffic-influence/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

get:

summary: read all of the active subscriptions for the AF

tags:

- Traffic Influence Subscription

responses:

'200':

description: OK.

content:

application/json:

schema:

type: array

items:

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

'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: Creates a new subscription resource

tags:

- Traffic Influence Subscription

requestBody:

description: Request to create a new subscription resource

required: true

content:

application/json:

schema:

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

callbacks:

notificationDestination:

'{request.body#/notificationDestination}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

callbacks:

afAcknowledgement:

'{request.body#/afAckUri}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content (successful acknowledgement)

'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'

responses:

'204':

description: No Content (successful notification)

'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'

responses:

'201':

description: Created (Successful creation of subscription)

content:

application/json:

schema:

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

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'

/{afId}/subscriptions/{subscriptionId}:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

get:

summary: read an active subscriptions for the SCS/AS and the subscription Id

tags:

- Individual Traffic Influence Subscription

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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:

- Individual Traffic Influence Subscription

requestBody:

description: Parameters to update/replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful update of the subscription)

content:

application/json:

schema:

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

'204':

description: No Content

'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: Updates/replaces an existing subscription resource

tags:

- Individual Traffic Influence Subscription

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The subscription was modified successfully.

content:

application/json:

schema:

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

'204':

description: No Content

'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'

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$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: Deletes an already existing subscription

tags:

- Individual Traffic Influence Subscription

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: '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:

TrafficInfluSub:

description: Represents a traffic influence subscription.

type: object

properties:

afServiceId:

type: string

description: Identifies a service on behalf of which the AF is issuing the request.

afAppId:

type: string

description: Identifies an application.

afTransId:

type: string

description: Identifies an NEF Northbound interface transaction, generated by the AF.

appReloInd:

type: boolean

description: >

Identifies whether an application can be relocated once a location of

the application has been selected.

dnn:

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

snssai:

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

externalGroupId:

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

anyUeInd:

type: boolean

description: >

Identifies whether the AF request applies to any UE. This attribute shall

set to "true" if applicable for any UE, otherwise, set to "false".

subscribedEvents:

type: array

items:

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

minItems: 1

description: Identifies the requirement to be notified of the event(s).

gpsi:

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

ipv4Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

ipDomain:

type: string

ipv6Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv6Addr'

macAddr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

dnaiChgType:

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

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by the SCS/AS to request the NEF to send a test notification

as defined in subclause 5.2.5.3. Set to false or omitted otherwise.

websockNotifConfig:

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

self:

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

trafficFilters:

type: array

items:

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

minItems: 1

description: Identifies IP packet filters.

ethTrafficFilters:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

minItems: 1

description: Identifies Ethernet packet filters.

trafficRoutes:

type: array

items:

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

minItems: 1

description: Identifies the N6 traffic routing requirement.

tfcCorrInd:

type: boolean

tempValidities:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/TemporalValidity'

validGeoZoneIds:

type: array

items:

type: string

minItems: 1

description: >

Identifies a geographic zone that the AF request applies only to the traffic

of UE(s) located in this specific zone.

deprecated: true

geoAreas:

type: array

items:

$ref: 'TS29522\_AMPolicyAuthorization.yaml#/components/schemas/GeographicalArea'

minItems: 1

description: Identifies geographical areas within which the AF request applies.

afAckInd:

type: boolean

addrPreserInd:

type: boolean

simConnInd:

type: boolean

description: >

Indicates whether simultaneous connectivity should be temporarily

maintained for the source and target PSA.

simConnTerm:

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

maxAllowedUpLat:

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

easIpReplaceInfos:

type: array

items:

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

minItems: 1

description: Contains EAS IP replacement information.

easRedisInd:

type: boolean

description: Indicates the EAS rediscovery is required for the application if it is included and set to "true".

suppFeat:

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

allOf:

- oneOf:

- required: [afAppId]

- required: [trafficFilters]

- required: [ethTrafficFilters]

- oneOf:

- required: [ipv4Addr]

- required: [ipv6Addr]

- required: [macAddr]

- required: [gpsi]

- required: [externalGroupId]

- required: [anyUeInd]

anyOf:

- not:

required: [subscribedEvents]

- required: [notificationDestination]

TrafficInfluSubPatch:

description: >

Represents parameters to request the modification of a traffic influence

subscription resource.

type: object

properties:

appReloInd:

type: boolean

description: >

Identifies whether an application can be relocated once a location of

the application has been selected.

nullable: true

trafficFilters:

type: array

items:

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

minItems: 1

description: Identifies IP packet filters.

ethTrafficFilters:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

minItems: 1

description: Identifies Ethernet packet filters.

trafficRoutes:

type: array

items:

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

minItems: 1

description: Identifies the N6 traffic routing requirement.

tfcCorrInd:

type: boolean

nullable: true

tempValidities:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/TemporalValidity'

minItems: 1

nullable: true

validGeoZoneIds:

type: array

items:

type: string

minItems: 1

description: >

Identifies a geographic zone that the AF request applies only to the traffic

of UE(s) located in this specific zone.

nullable: true

deprecated: true

geoAreas:

type: array

items:

$ref: 'TS29522\_AMPolicyAuthorization.yaml#/components/schemas/GeographicalArea'

minItems: 1

description: Identifies geographical areas within which the AF request applies.

nullable: true

afAckInd:

type: boolean

nullable: true

addrPreserInd:

type: boolean

nullable: true

simConnInd:

type: boolean

description: >

Indicates whether simultaneous connectivity should be temporarily maintained

for the source and target PSA.

simConnTerm:

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

maxAllowedUpLat:

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

easIpReplaceInfos:

type: array

items:

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

minItems: 1

description: Contains EAS IP replacement information.

nullable: true

easRedisInd:

type: boolean

description: Indicates the EAS rediscovery is required for the application if it is included and set to "true".

notificationDestination:

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

EventNotification:

description: Represents a traffic influence event notification.

type: object

properties:

afTransId:

type: string

description: Identifies an NEF Northbound interface transaction, generated by the AF.

dnaiChgType:

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

sourceTrafficRoute:

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

subscribedEvent:

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

targetTrafficRoute:

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

sourceDnai:

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

targetDnai:

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

gpsi:

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

srcUeIpv4Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

srcUeIpv6Prefix:

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

tgtUeIpv4Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

tgtUeIpv6Prefix:

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

ueMac:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

afAckUri:

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

required:

- dnaiChgType

- subscribedEvent

AfResultInfo:

description: Identifies the result of application layer handling.

type: object

properties:

afStatus:

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

trafficRoute:

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

upBuffInd:

type: boolean

description: >

If present and set to "true" it indicates that buffering of uplink traffic

to the target DNAI is needed.

easIpReplaceInfos:

type: array

items:

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

minItems: 1

description: Contains EAS IP replacement information.

required:

- afStatus

AfAckInfo:

description: Represents acknowledgement information of a traffic influence event notification.

type: object

properties:

afTransId:

type: string

ackResult:

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

gpsi:

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

required:

- ackResult

SubscribedEvent:

anyOf:

- type: string

enum:

- UP\_PATH\_CHANGE

- type: string

description: |

Possible values are:

- UP\_PATH\_CHANGE: The AF requests to be notified when the UP path changes for the PDU session.

AfResultStatus:

anyOf:

- type: string

enum:

- SUCCESS

- TEMPORARY\_CONGESTION

- RELOC\_NO\_ALLOWED

- OTHER

- type: string

description: |

Possible values are:

- SUCCESS: The application layer is ready or the relocation is completed.

- TEMPORARY\_CONGESTION: The application relocation fails due to temporary congestion.

- RELOC\_NO\_ALLOWED: The application relocation fails because application relocation is not allowed.

- OTHER: The application relocation fails due to other reason.

\* \* \* \* Next changes \* \* \* \*

# A.3 NiddConfigurationTrigger API

openapi: 3.0.0

info:

title: 3gpp-nidd-configuration-trigger

version: 1.1.0

description: |

API for NIDD Configuration Trigger.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}'

variables:

apiRoot:

default: https://example.com

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

paths:

/:

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: Success

content:

application/json:

schema:

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

'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:

NiddConfigurationTrigger:

description: Represents a NIDD configuration trigger.

type: object

properties:

afId:

type: string

description: Identifies the trigger receiving entity.

nefId:

type: string

description: Identifies the trigger sending entity.

gpsi:

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

suppFeat:

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

required:

- afId

- nefId

- gpsi

- suppFeat

NiddConfigurationTriggerReply:

description: Represents a reply to a NIDD configuration trigger.

type: object

properties:

suppFeat:

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

required:

- suppFeat

\* \* \* \* Next changes \* \* \* \*

# A.4 AnalyticsExposure API

openapi: 3.0.0

info:

title: 3gpp-analyticsexposure

version: 1.1.0

description: |

API for Analytics Exposure.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-analyticsexposure/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

get:

summary: read all of the active subscriptions for the AF

tags:

- Analytics Exposure Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: supp-feat

in: query

description: Features supported by the NF service consumer

required: false

schema:

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

responses:

'200':

description: OK (Successful get all of the active subscriptions for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new subscription resource

tags:

- Analytics Exposure Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new subscription creation

required: true

content:

application/json:

schema:

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

callbacks:

notification:

'{request.body#/notifUri}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content (successful notification)

'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'

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

headers:

Location:

description: Contains the URI of the newly created resource.

required: true

schema:

type: string

'204':

description: >

Successful case. The resource has been successfully created and no additional

content is to be sent in the response message.

'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'

/{afId}/subscriptions/{subscriptionId}:

get:

summary: read an active subscription for the AF and the subscription Id

tags:

- Individual Analytics Exposure Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

- name: supp-feat

in: query

description: Features supported by the NF service consumer

required: false

schema:

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

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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:

- Individual Analytics Exposure Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the 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/AnalyticsExposureSubsc'

responses:

'200':

description: OK (Successful deletion of the existing subscription)

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Deletes an already existing subscription

tags:

- Individual Analytics Exposure Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

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: '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'

/{afId}/fetch:

post:

summary: Fetch analytics information

tags:

- AnalyticsExposure API Fetch analytics information

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: The requested information was returned successfully.

content:

application/json:

schema:

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

'204':

description: No Content (The requested Analytics data does not exist)

'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:

AnalyticsExposureSubsc:

description: Represents an analytics exposure subscription.

type: object

properties:

analyEventsSubs:

type: array

items:

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

minItems: 1

analyRepInfo:

$ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/ReportingInformation'

notifUri:

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

notifId:

type: string

eventNotifis:

type: array

items:

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

minItems: 1

failEventReports:

type: array

items:

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

minItems: 1

suppFeat:

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

self:

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

requestTestNotification:

type: boolean

description: >

Set to true by the AF to request the NEF to send a test notification

as defined in subclause 5.2.5.3 of 3GPP TS 29.122. Set to false or omitted otherwise.

websockNotifConfig:

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

required:

- analyEventsSubs

- notifUri

- notifId

AnalyticsEventNotification:

description: Represents an analytics event(s) notification.

type: object

properties:

notifId:

type: string

analyEventNotifs:

type: array

items:

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

minItems: 1

required:

- notifId

- analyEventNotifs

AnalyticsEventNotif:

description: Represents an analytics event to be reported.

type: object

properties:

analyEvent:

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

expiry:

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

timeStamp:

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

ueMobilityInfos:

type: array

items:

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

minItems: 1

ueCommInfos:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/UeCommunication'

minItems: 1

abnormalInfos:

type: array

items:

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

minItems: 1

congestInfos:

type: array

items:

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

minItems: 1

nwPerfInfos:

type: array

items:

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

minItems: 1

qosSustainInfos:

type: array

items:

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

minItems: 1

disperInfos:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/DispersionInfo'

minItems: 1

required:

- analyEvent

- timeStamp

AnalyticsEventSubsc:

description: Represents a subscribed analytics event.

type: object

properties:

analyEvent:

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

analyEventFilter:

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

tgtUe:

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

required:

- analyEvent

AnalyticsEventFilterSubsc:

description: Represents an analytics event filter.

type: object

properties:

nwPerfReqs:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NetworkPerfRequirement'

minItems: 1

locArea:

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

appIds:

type: array

items:

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

minItems: 1

dnn:

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

excepRequs:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/Exception'

minItems: 1

exptAnaType:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/ExpectedAnalyticsType'

exptUeBehav:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExpectedUeBehaviourData'

reptThlds:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/ThresholdLevel'

minItems: 1

snssai:

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

qosReq:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/QosRequirement'

qosFlowRetThds:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/RetainabilityThreshold'

minItems: 1

ranUeThrouThds:

type: array

items:

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

minItems: 1

disperReqs:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/DispersionRequirement'

minItems: 1

extraReportReq:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/EventReportingRequirement'

TargetUeId:

description: Represents the target UE(s) information.

type: object

properties:

anyUeInd:

type: boolean

gpsi:

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

exterGroupId:

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

UeMobilityExposure:

description: Represents a UE mobility information.

type: object

properties:

ts:

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

recurringTime:

$ref: 'TS29122\_CpProvisioning.yaml#/components/schemas/ScheduledCommunicationTime'

duration:

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

durationVariance:

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

locInfo:

type: array

items:

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

minItems: 1

required:

- duration

- locInfo

UeLocationInfo:

description: Represents a UE location information.

type: object

properties:

loc:

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

ratio:

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

confidence:

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

required:

- loc

AnalyticsRequest:

description: Represents the parameters to request to retrieve analytics information.

type: object

properties:

analyEvent:

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

analyEventFilter:

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

analyRep:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/EventReportingRequirement'

tgtUe:

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

suppFeat:

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

required:

- analyEvent

- suppFeat

AnalyticsEventFilter:

description: Represents analytics event filter information.

type: object

properties:

locArea:

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

dnn:

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

nwPerfTypes:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NetworkPerfType'

minItems: 1

appIds:

type: array

items:

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

minItems: 1

excepIds:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/ExceptionId'

minItems: 1

exptAnaType:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/ExpectedAnalyticsType'

exptUeBehav:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExpectedUeBehaviourData'

snssai:

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

qosReq:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/QosRequirement'

AnalyticsData:

description: Represents analytics data.

type: object

properties:

expiry:

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

ueMobilityInfos:

type: array

items:

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

minItems: 1

ueCommInfos:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/UeCommunication'

minItems: 1

nwPerfInfos:

type: array

items:

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

minItems: 1

abnormalInfos:

type: array

items:

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

minItems: 1

congestInfos:

type: array

items:

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

minItems: 1

qosSustainInfos:

type: array

items:

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

minItems: 1

disperInfos:

type: array

items:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/DispersionInfo'

minItems: 1

suppFeat:

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

required:

- suppFeat

NetworkPerfExposure:

description: Represents network performance information.

type: object

properties:

locArea:

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

nwPerfType:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NetworkPerfType'

relativeRatio:

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

absoluteNum:

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

confidence:

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

required:

- locArea

- nwPerfType

AbnormalExposure:

description: Represents a user’s abnormal behavior information.

type: object

properties:

gpsis:

type: array

items:

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

minItems: 1

appId:

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

excep:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/Exception'

ratio:

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

confidence:

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

addtMeasInfo:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/AdditionalMeasurement'

required:

- excep

CongestInfo:

description: Represents a UE’s user data congestion information.

type: object

properties:

locArea:

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

cngAnas:

type: array

items:

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

minItems: 1

required:

- locArea

- cngAnas

CongestionAnalytics:

description: >

Represents data congestion analytics for transfer over the user plane,

control plane or both.

type: object

properties:

cngType:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/CongestionType'

tmWdw:

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

nsi:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/ThresholdLevel'

confidence:

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

required:

- cngType

- tmWdw

- nsi

QosSustainabilityExposure:

description: Represents a QoS sustainability information.

type: object

properties:

locArea:

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

startTs:

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

endTs:

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

qosFlowRetThd:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/RetainabilityThreshold'

ranUeThrouThd:

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

confidence:

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

required:

- locArea

- startTs

- endTs

AnalyticsFailureEventInfo:

description: >

Represents an event for which the subscription request was not successful

and including the associated failure reason.

type: object

properties:

event:

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

failureCode:

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

required:

- event

- failureCode

AnalyticsEvent:

anyOf:

- type: string

enum:

- UE\_MOBILITY

- UE\_COMM

- ABNORMAL\_BEHAVIOR

- CONGESTION

- NETWORK\_PERFORMANCE

- QOS\_SUSTAINABILITY

- DISPERSION

- 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:

- UE\_MOBILITY: The AF requests to be notified about analytics information of UE mobility.

- UE\_COMM: The AF requests to be notified about analytics information of UE communication.

- ABNORMAL\_BEHAVIOR: The AF requests to be notified about analytics information of UE’s abnormal behavior.

- CONGESTION: The AF requests to be notified about analytics information of user data congestion information.

- NETWORK\_PERFORMANCE: The AF requests to be notified about analytics information of network performance.

- QOS\_SUSTAINABILITY: The AF requests to be notified about analytics information of QoS sustainability.

- DISPERSION: The AF requests to be notified about analytics information of Dispersion analytics.

AnalyticsFailureCode:

anyOf:

- type: string

enum:

- UNAVAILABLE\_DATA

- BOTH\_STAT\_PRED\_NOT\_ALLOWED

- OTHER

- 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:

- UNAVAILABLE\_DATA: The event is rejected since necessary data to perform the service is unavailable.

- BOTH\_STAT\_PRED\_NOT\_ALLOWED: The event is rejected since the start time is in the past and the end time is in the future, which means the NF service consumer requested both statistics and prediction for the analytics.

- OTHER: The event is rejected due to other reasons.

\* \* \* \* Next changes \* \* \* \*

# A.5 5GLANParameterProvision API

openapi: 3.0.0

info:

title: 3gpp-5glan-pp

version: 1.1.0

description: |

API for 5G LAN Parameter Provision.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-5glan-pp/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

get:

summary: read all of the active subscriptions for the AF

tags:

- 5GLAN Parameters Provision Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active subscriptions for the AF)

content:

application/json:

schema:

type: array

items:

$ref: '#/components/schemas/5GLanParametersProvision'

minItems: 0

'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: Creates a new subscription resource

tags:

- 5GLAN Parameters Provision Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new subscription creation

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/5GLanParametersProvision'

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

$ref: '#/components/schemas/5GLanParametersProvision'

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'

/{afId}/subscriptions/{subscriptionId}:

get:

summary: read an active subscription for the AF and the subscription Id

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

$ref: '#/components/schemas/5GLanParametersProvision'

'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:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the 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/5GLanParametersProvision'

responses:

'200':

description: OK (Successful deletion of the existing subscription)

content:

application/json:

schema:

$ref: '#/components/schemas/5GLanParametersProvision'

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Partial updates an existing subscription resource

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

requestBody:

required: true

content:

application/merge-patch+json:

schema:

$ref: '#/components/schemas/5GLanParametersProvisionPatch'

responses:

'200':

description: OK. The subscription was modified successfully.

content:

application/json:

schema:

$ref: '#/components/schemas/5GLanParametersProvision'

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Deletes an already existing subscription

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

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: '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:

5GLanParametersProvision:

description: Represents an individual 5G LAN parameters provision subscription resource.

type: object

properties:

self:

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

5gLanParams:

$ref: '#/components/schemas/5GLanParameters'

suppFeat:

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

required:

- 5gLanParams

- suppFeat

5GLanParametersProvisionPatch:

description: >

Represents the 5G LAN parameters to request the modification of a subscription

to provision parameters.

type: object

properties:

5gLanParamsPatch:

$ref: '#/components/schemas/5GLanParametersPatch'

5GLanParameters:

description: Represents 5G LAN service related parameters that need to be provisioned.

type: object

properties:

exterGroupId:

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

gpsis:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the list of 5G VN Group members, each member is identified by GPSI.

Any string value can be used as a key of the map.

dnn:

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

aaaIpv4Addr:

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

aaaIpv6Addr:

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

aaaUsgs:

type: array

items:

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

minItems: 1

mtcProviderId:

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

snssai:

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

sessionType:

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

sessionTypes:

type: array

items:

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

minItems: 1

description: Further allowed PDU Session types.

appDesps:

type: object

additionalProperties:

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

minProperties: 1

description: Describes the operation systems and the corresponding applications for each operation systems. The key of map is osId.

required:

- exterGroupId

- gpsis

- dnn

- snssai

- sessionType

- appDesps

5GLanParametersPatch:

description: Represents 5G LAN service related parameters that need to be modified.

type: object

properties:

gpsis:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the list of 5G VN Group members, each member is identified by GPSI.

Any string value can be used as a key of the map.

appDesps:

type: object

additionalProperties:

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

minProperties: 1

description: >

Describes the operation systems and the corresponding applications for

each operation systems. The key of map is osId.

AppDescriptor:

description: Represents an operation system and the corresponding applications.

type: object

properties:

osId:

$ref: 'TS29519\_Policy\_Data.yaml#/components/schemas/OsId'

appIds:

type: object

additionalProperties:

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

minProperties: 1

description: >

Identifies applications that are running on the UE’s operating system.

Any string value can be used as a key of the map.

required:

- osId

- appIds

AppDescriptorRm:

description: >

Represents the same as the AppDescriptor data type but with the nullable:true

property.

type: object

properties:

appIds:

type: object

additionalProperties:

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

minProperties: 1

description: >

Identifies applications that are running on the UE’s operating system.

Any string value can be used as a key of the map.

AaaUsage:

anyOf:

- type: string

enum:

- AUTH

- IP\_ALLOC

- type: string

description: >

This string identifies the usage of secondary authentication/authorization,

and/or UE IP address allocation from the DN-AAA server.

description: |

Possible values are:

- AUTH: secondary authentication/authorization needed from DN-AAA server

- IP\_ALLOC: UE IP address allocation needed from DN-AAA server

\* \* \* \* Next changes \* \* \* \*

# A.6 ApplyingBdtPolicy API

openapi: 3.0.0

info:

title: 3gpp-applying-bdt-policy

version: 1.1.0

description: |

API for applying BDT policy

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-applying-bdt-policy/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

get:

summary: read all of the active subscriptions for the AF

tags:

- Applied BDT Policy Subscription

responses:

'200':

description: OK.

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new subscription resource

tags:

- Applied BDT Policy Subscription

requestBody:

description: Request to create a new subscription resource

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation of subscription)

content:

application/json:

schema:

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

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'

/{afId}/subscriptions/{subscriptionId}:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

get:

summary: read an active subscriptions for the SCS/AS and the subscription Id

tags:

- Individual Applied BDT Policy Subscription

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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'

patch:

summary: Updates/replaces an existing subscription resource

tags:

- Individual Applied BDT Policy Subscription

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The subscription was modified successfully.

content:

application/json:

schema:

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

'204':

description: No content. The subscription was modified 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'

'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: Deletes an already existing subscription

tags:

- Individual Applied BDT Policy Subscription

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: '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:

AppliedBdtPolicy:

description: Represents an applied BDT policy.

type: object

properties:

externalGroupId:

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

gpsi:

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

bdtRefId:

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

suppFeat:

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

self:

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

required:

- bdtRefId

- suppFeat

oneOf:

- required: [gpsi]

- required: [externalGroupId]

AppliedBdtPolicyPatch:

description: >

Represents the parameters to request the modification of a subscription to

applied BDT policy.

type: object

properties:

bdtRefId:

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

required:

- bdtRefId

\* \* \* \* Next changes \* \* \* \*

# A.7 IPTVConfiguration API

openapi: 3.0.0

info:

title: 3gpp-iptvconfiguration

version: 1.1.0

description: |

API for IPTV configuration.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-iptvconfiguration/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/configurations:

get:

summary: read all of the active configurations for the AF

tags:

- IPTV Configurations

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active configurations for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new configuration resource

tags:

- IPTV Configurations

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new configuration creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation of configuration)

content:

application/json:

schema:

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

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'

/{afId}/configurations/{configurationId}:

get:

summary: read an active configuration for the AF and the configuration Id

tags:

- Individual IPTV Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active configuration)

content:

application/json:

schema:

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

'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 configuration resource

tags:

- Individual IPTV Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing configuration

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful deletion of the existing configuration)

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Partial updates an existing configuration resource

tags:

- Individual IPTV Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The configuration was modified successfully.

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Deletes an already existing configuration

tags:

- Individual IPTV Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'204':

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

'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:

IptvConfigData:

description: Represents an individual IPTV Configuration resource.

type: object

properties:

self:

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

gpsi:

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

exterGroupId:

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

afAppId:

type: string

dnn:

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

snssai:

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

multiAccCtrls:

type: object

additionalProperties:

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

minProperties: 1

description: >

Identifies a list of multicast address access control information.

Any string value can be used as a key of the map.

mtcProviderId:

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

suppFeat:

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

required:

- afAppId

- multiAccCtrls

- suppFeat

IptvConfigDataPatch:

description: >

Represents the parameters to request the modification of an IPTV Configuration resource.

type: object

properties:

multiAccCtrls:

type: object

additionalProperties:

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

minProperties: 1

description: >

Identifies a list of multicast address access control information.

Any string value can be used as a key of the map.

MulticastAccessControl:

description: Represents multicast address access control information.

type: object

properties:

srcIpv4Addr:

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

srcIpv6Addr:

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

multicastV4Addr:

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

multicastV6Addr:

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

accStatus:

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

required:

- accStatus

AccessRightStatus:

anyOf:

- type: string

enum:

- FULLY\_ALLOWED

- PREVIEW\_ALLOWED

- NO\_ALLOWED

- type: string

description: |

Possible values are:

- FULLY\_ALLOWED: The User is fully allowed to access to the channel.

- PREVIEW\_ALLOWED: The User is preview allowed to access to the channel.

- NO\_ALLOWED: The User is not allowed to access to the channel.

\* \* \* \* Next changes \* \* \* \*

# A.8 LpiParameterProvision API

openapi: 3.0.0

info:

title: 3gpp-lpi-pp

version: 1.1.0

description: |

API for Location Privacy Indication Parameters Provisioning.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-lpi-pp/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/provisionedLpis:

get:

summary: read all of the active LPI Parameters Provisioning resources for the AF

tags:

- LPI Parameters Provisionings

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active resources for the AF)

content:

application/json:

schema:

type: array

items:

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

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: Creates a new LPI Parameters Provisioning resource

tags:

- LPI Parameters Provisionings

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new resource creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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'

/{afId}/provisionedLpis/{provisionedLpiId}:

get:

summary: read an active LPI Parameters Provisioning resource for the AF and the provisioned LPI Id

tags:

- Individual LPI Parameters Provisioning

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: provisionedLpiId

in: path

description: Identifier of the provisioned LPI parameter resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active resource)

content:

application/json:

schema:

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

'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 LPI Parameters Provisioning resource

tags:

- Individual LPI Parameters Provisioning

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: provisionedLpiId

in: path

description: Identifier of the provisioned LPI parameter resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing resource

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK. The resource has been successfully updated and a representation of the updated resource is returned.

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is sent in the response message.

'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: Modifies an existing LPI Parameters Provisioning resource.

tags:

- Individual LPI Parameters Provisioning

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: provisionedLpiId

in: path

description: Identifier of the provisioned LPI parameter resource

required: true

schema:

type: string

requestBody:

description: Parameters to modify the existing resource.

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK. The resource has been successfully modified and a representation of the updated resource is returned.

content:

application/json:

schema:

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

'204':

description: Successful case. The resource has been successfully modified and no additional content is sent in the response message.

'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: Deletes an already existing LPI Parameters Provisioning resource

tags:

- Individual LPI Parameters Provisioning

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: provisionedLpiId

in: path

description: Identifier of the provisioned LPI parameter resource

required: true

schema:

type: string

responses:

'204':

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

'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:

LpiParametersProvision:

description: Represents an individual LPI Parameters Provisionings resource.

type: object

properties:

self:

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

exterGroupId:

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

gpsi:

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

lpi:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/Lpi'

mtcProviderId:

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

suppFeat:

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

required:

- lpi

- suppFeat

LpiParametersProvisionPatch:

description: Represents the parameters to modify an existing Individual LPI Parameters Provisionings resource.

type: object

properties:

lpi:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/Lpi'

mtcProviderId:

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

\* \* \* \* Next changes \* \* \* \*

# A.9 ServiceParameter API

openapi: 3.0.0

info:

title: 3gpp-service-parameter

version: 1.1.0

description: |

API for AF service paramter

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-service-parameter/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

get:

summary: read all of the active subscriptions for the AF

tags:

- Service Parameter Subscriptions

parameters:

- name: gpsi

in: query

description: The GPSI of the requested UE(s).

required: false

schema:

type: array

items:

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

minItems: 1

- name: ip-addrs

in: query

description: The IP address(es) of the requested UE(s).

required: false

schema:

type: array

items:

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

minItems: 1

- name: ip-domain

in: query

description: >

The IPv4 address domain identifier. The attribute may only be provided

if IPv4 address is included in the ip-addrs query parameter.

required: false

schema:

type: string

- name: mac-addrs

in: query

description: The MAC address(es) of the requested UE(s).

required: false

schema:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

minItems: 1

responses:

'200':

description: OK.

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new subscription resource

tags:

- Service Parameter Subscriptions

requestBody:

description: Request to create a new subscription resource

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation of subscription)

content:

application/json:

schema:

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

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:

notificationDestination:

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

post:

requestBody:

description: >

Notifications upon AF Service Parameter Authorization Update,

and/or AF subscribed event notification of the outcome related

to the invocation of service parameters provisioning.

required: true

content:

application/json:

schema:

type: array

items:

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

minItems: 1

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'

/{afId}/subscriptions/{subscriptionId}:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

get:

summary: read an active subscriptions for the SCS/AS and the subscription Id

tags:

- Individual Service Parameter Subscription

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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:

- Individual Service Parameter Subscription

requestBody:

description: Parameters to update/replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful update of the subscription)

content:

application/json:

schema:

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

'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: Updates/replaces an existing subscription resource

tags:

- Individual Service Parameter Subscription

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The subscription was modified successfully.

content:

application/json:

schema:

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

'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: Deletes an already existing subscription

tags:

- Individual Service Parameter Subscription

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: '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:

ServiceParameterData:

description: Represents an individual Service Parameter subscription resource.

type: object

properties:

afServiceId:

type: string

description: Identifies a service on behalf of which the AF is issuing the request.

appId:

type: string

description: Identifies an application.

dnn:

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

snssai:

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

externalGroupId:

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

anyUeInd:

type: boolean

description: >

Identifies whether the AF request applies to any UE. This attribute

shall set to "true" if applicable for any UE, otherwise, set to "false".

gpsi:

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

ueIpv4:

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

ueIpv6:

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

ueMac:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

self:

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

subNotifEvents:

type: array

items:

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

minItems: 1

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by the AF to request the NEF to send a test notification

as defined in subclause 5.2.5.3 of 3GPP TS 29.122. Set to false or omitted otherwise.

websockNotifConfig:

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

paramOverPc5:

$ref: '#/components/schemas/ParameterOverPc5'

paramOverUu:

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

paramForProSeDd:

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

paramForProSeDc:

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

paramForProSeU2NRelUe:

$ref: '#/components/schemas/ParamForProSeU2NRelUe'

paramForProSeRemUe:

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

urspGuidance:

type: array

items:

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

minItems: 1

description: Contains the service parameter used to guide the URSP.

mtcProviderId:

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

suppFeat:

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

ServiceParameterDataPatch:

description: >

Represents the parameters to request the modification of a service parameter

subscription resource.

type: object

properties:

paramOverPc5:

$ref: '#/components/schemas/ParameterOverPc5Rm'

paramOverUu:

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

paramForProSeDd:

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

paramForProSeDc:

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

paramForProSeU2NRelUe:

$ref: '#/components/schemas/ParamForProSeU2NRelUeRm'

paramForProSeRemUe:

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

urspGuidance:

type: array

items:

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

minItems: 1

description: Contains the service parameter used to guide the URSP.

subNotifEvents:

type: array

items:

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

minItems: 1

nullable: true

notificationDestination:

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

ParameterOverPc5:

description: >

Represents configuration parameters for V2X communications over PC5 reference point.

type: string

ParameterOverPc5Rm:

description: >

Represents the same as the ParameterOverPc5 data type but with the nullable:true property.

type: string

nullable: true

ParameterOverUu:

description: >

Represents configuration parameters for V2X communications over Uu reference point.

type: string

ParameterOverUuRm:

description: >

Represents the same as the ParameterOverUu data type but with the nullable:true property.

type: string

nullable: true

ParamForProSeDd:

description: Represents the service parameters for 5G ProSe direct discovery.

type: string

ParamForProSeDdRm:

description: >

This data type is defined in the same way as the ParamForProSeDd data type,

but with the OpenAPI nullable property set to true.

type: string

nullable: true

ParamForProSeDc:

description: Represents the service parameters for 5G ProSe direct communications.

type: string

ParamForProSeDcRm:

description: >

This data type is defined in the same way as the ParamForProSeDc data type,

but with the OpenAPI nullable property set to true.

type: string

nullable: true

ParamForProSeU2NRelUe:

description: Represents the service parameters for 5G ProSe UE-to-network relay UE.

type: string

ParamForProSeU2NRelUeRm:

description: >

This data type is defined in the same way as the ParamForProSeU2NRelay data type,

but with the OpenAPI nullable property set to true.

type: string

nullable: true

ParamForProSeRemUe:

description: Represents the service parameters for 5G ProSe Remate UE.

type: string

ParamForProSeRemUeRm:

description: >

This data type is defined in the same way as the ParamForProSeRemUe data type,

but with the OpenAPI nullable property set to true.

type: string

nullable: true

UrspRuleRequest:

description: Contains parameters that can be used to guide the URSP.

type: object

properties:

trafficDesc:

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

routeSelParamSets:

type: array

items:

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

minItems: 1

description: Sets of parameters that may be used to guide the Route Selection Descriptors of the URSP.

RouteSelectionParameterSet:

description: >

Contains parameters that can be used to guide the Route Selection

Descriptors of the URSP.

type: object

properties:

dnn:

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

snssai:

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

precedence:

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

spatialValidity:

type: array

items:

type: string

minItems: 1

description: >

Indicates where the route selection parameters apply. It may correspond

to a geographical area, for example using a geographic zone identifier that

is known to the AF and is configured by the operator to correspond to a list

of or TAIs.

spatialValidityTais:

type: array

items:

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

minItems: 1

description: Indicates the TAIs in which the route selection parameters apply. This attribute is applicable only within the 5GC and it shall not be included in the request messages of untrusted AFs for URSP guidance.

Event:

anyOf:

- type: string

enum:

- SUCCESS\_UE\_POL\_DEL\_SP

- UNSUCCESS\_UE\_POL\_DEL\_SP

- type: string

description: >

This string identifies AF subscribe to event(s) notifications related to

AF provisioned service parameters.

description: |

Possible values are:

- SUCCESS\_UE\_POL\_DEL\_SP: Successful UE Policy Delivery related to the invocation of AF provisioned Service Parameters.

- UNSUCCESS\_UE\_POL\_DEL\_SP: Unsuccessful UE Policy Delivery related to the invocation of AF provisioned Service Parameters.

AfNotification:

description: >

Notifications upon AF Service Parameter Authorization Update e.g. to

revoke the authorization, and/or AF subscribed event notification of the

outcome related to the invocation of service parameter provisioning.

type: object

properties:

subscription:

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

reportEvent:

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

authResult:

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

gpsi:

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

externalGroupId:

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

anyUeInd:

type: boolean

description: >

Identifies whether the AF request applies to any UE. This attribute shall

set to "true" if applicable for any UE, otherwise, set to "false".

dnn:

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

snssai:

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

eventInfo:

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

required:

- subscription

oneOf:

- required: [gpsi]

- required: [externalGroupId]

- required: [anyUeInd]

anyOf:

- required: [reportEvent]

- required: [authResult]

TrafficDescriptorComponents:

description: Traffic descriptor components for the requested URSP.

type: object

properties:

appDescs:

type: object

additionalProperties:

$ref: 'TS29522\_5GLANParameterProvision.yaml#/components/schemas/AppDescriptor'

minProperties: 1

description: Describes the operation systems and the corresponding applications for each operation systems. The key of map is osId.

flowDescs:

type: array

items:

type: string

minItems: 1

description: Represents a 3-tuple with protocol, server ip and server port for UL/DL application traffic. The content of the string has the same encoding as the IPFilterRule AVP value as defined in IETF RFC 6733.

domainDescs:

type: array

items:

type: string

minItems: 1

description: FQDN(s) or a regular expression which are used as a domain name matching criteria.

ethFlowDescs:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

minItems: 1

description: Descriptor(s) for destination information of non-IP traffic in which only ethernet flow description is defined.

dnns:

type: array

items:

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

minItems: 1

description: This is matched against the DNN information provided by the application.

connCaps:

type: array

items:

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

minItems: 1

description: This is matched against the information provided by a UE application when it requests a network connection with certain capabilities.

anyOf:

- required: [appDescs]

- required: [flowDescs]

- required: [domainDescs]

- required: [ethFlowDescs]

- required: [dnns]

- required: [connCaps]

AuthorizationResult:

anyOf:

- type: string

enum:

- AUTH\_REVOKED

- type: string

description: >

This string indicates NEF notify the AF about the service parameters authorization

updates result.

description: |

Possible values are:

- AUTH\_REVOKED: Indicated the service parameters authorization is revoked.

EventInfo:

description: Indicates the event information.

type: object

properties:

failureCause:

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

Failure:

oneOf:

- type: string

enum:

- UNSPECIFIED

- UE\_NOT\_REACHABLE

- UNKNOWN

- type: string

description: >

This string represents the failure reason for the unsuccessful result. May be

present if the reported afSubEvent attribute is "UNSUCCESS\_UE\_POL\_DEL\_SP".

description: |

Possible values are:

- UNSPECIFIED: Indicates the PCF received the UE sent UE policy delivery service cause #111 (Protocol error, unspecified).

- UE\_NOT\_REACHABLE: Indicates the PCF received the notification from the AMF that the UE is not reachable.

- UNKNOWN: Indicates unknown reasons upon no response from the UE, e.g. UPDS message type is not defined or not implemented by the UE, or not compatible with the UPDS state, in which the UE shall ignore the UPDS message.

ConnectionCapabilities:

anyOf:

- type: string

enum:

- IMS

- MMS

- SUPL

- Internet

- 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

- IMS: Indicates the connection capability to support IMS service.

- MMS: Indicates the connection capability to support MMS service.

- SUPL: Indicates the connection capability to support SUPL service.

- Internet: Indicates the connection capability to support Internet service.

\* \* \* \* Next changes \* \* \* \*

# A.10 ACSParameterProvision API

openapi: 3.0.0

info:

title: 3gpp-acs-pp

version: 1.1.0

description: |

API for 5G ACS Parameter Provision.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-acs-pp/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

get:

summary: read all of the active subscriptions for the AF

tags:

- ACS Configuration Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active subscriptions for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new subscription resource

tags:

- ACS Configuration Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new subscription creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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'

/{afId}/subscriptions/{subscriptionId}:

get:

summary: read an active subscription for the AF and the subscription Id

tags:

- Individual ACS Configuration Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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:

- Individual ACS Configuration Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the 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/AcsConfigurationData'

responses:

'200':

description: OK (Successful update of the existing subscription)

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Modifies an existing subscription resource.

tags:

- Individual ACS Configuration Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

requestBody:

description: Parameters to modify the existing subscription.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The subscription resource was successfully modified and a representation of the updated resource is returned.

content:

application/json:

schema:

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

'204':

description: No Content. The resource has been successfully modified and no additional content is to be sent in the response message.

'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: Deletes an already existing subscription

tags:

- Individual ACS Configuration Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

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: '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:

AcsConfigurationData:

description: Represents an individual ACS Configuration subscription resource.

type: object

properties:

self:

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

exterGroupId:

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

gpsi:

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

acsInfo:

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

mtcProviderId:

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

suppFeat:

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

required:

- acsInfo

- suppFeat

AcsConfigurationDataPatch:

description: Represents the parameters to request to modify an existing Individual ACS Configuration subscription resource.

type: object

properties:

acsInfo:

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

mtcProviderId:

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

\* \* \* \* Next changes \* \* \* \*

# A.11 MoLcsNotify API

openapi: 3.0.0

info:

title: 3gpp-mo-lcs-notify

version: 1.1.0

description: |

API for UE updated location information notification.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-mo-lcs-notify/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/:

post:

summary: UE location information update notification

tags:

- AF level UE location update notification operation

requestBody:

content:

application/json:

schema:

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

required: true

responses:

'200':

description: Success

content:

application/json:

schema:

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

'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:

LocUpdateData:

description: Represents a UE updated location information.

type: object

properties:

gpsi:

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

locInfo:

$ref: 'TS29122\_MonitoringEvent.yaml#/components/schemas/LocationInfo'

lcsQosClass:

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

svcId:

$ref: 'TS29515\_Ngmlc\_Location.yaml#/components/schemas/ServiceIdentity'

suppFeat:

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

required:

- gpsi

- lcsQosClass

- locInfo

- suppFeat

LocUpdateDataReply:

description: Represents a reply to a MO LCS notification.

type: object

properties:

suppFeat:

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

required:

- suppFeat

\* \* \* \* Next changes \* \* \* \*

# A.12 AKMA API

openapi: 3.0.0

info:

title: 3gpp-akma

version: 1.0.0

description: |

API for AKMA.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-akma/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/retrieve:

post:

summary: Retrieve AKMA Application Key Information.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: The requested information was returned successfully.

content:

application/json:

schema:

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

'204':

description: No Content.

'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:

AkmaAfKeyRequest:

description: >

Represents the parameters to request the retrieval of AKMA Application Key information.

type: object

properties:

suppFeat:

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

afId:

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

aKId:

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

required:

- afId

- aKId

AkmaAfKeyData:

description: Represents AKMA Application Key information data.

type: object

properties:

suppFeat:

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

gpsi:

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

expiry:

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

kaf:

type: string

supi:

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

required:

- kaf

- expiry

AfId:

description: Represents an AF identifier.

type: string

AKId:

description: Represents an AKMA Key Identifier.

type: string

\* \* \* \* Next changes \* \* \* \*

# A.13 TimeSyncExposure API

openapi: 3.0.0

info:

title: 3gpp-time-sync-exposure

version: 1.0.0

description: |

API for time synchronization exposure.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-time-sync/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

get:

summary: read all of the active subscriptions for the AF

tags:

- Time Synchronization Exposure Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active subscriptions for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new subscription resource

tags:

- Time Synchronization Exposure Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new subscription creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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:

timeSyncSubsNotification:

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

post:

requestBody:

description: Notification for Time Synchronization Capability for a list of UEs.

required: true

content:

application/json:

schema:

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

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'

/{afId}/subscriptions/{subscriptionId}:

get:

summary: read an active subscription for the AF and the subscription Id

tags:

- Individual Time Synchronization Exposure Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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'

delete:

summary: Deletes an already existing subscription

tags:

- Individual Time Synchronization Exposure Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

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: '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'

/{afId}/subscriptions/{subscriptionId}/configurations:

get:

summary: read all of the active configurations for the AF

tags:

- Time Synchronization Exposure Configurations

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

description: String identifying the individual synchronization Exposure Subscription resource in the NEF

in: path

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active configurations for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new configuration resource

tags:

- Time Synchronization Exposure Configurations

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

description: >

String identifying the individual synchronization Exposure Subscription

resource in the NEF.

in: path

required: true

schema:

type: string

requestBody:

description: new configuration creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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:

timeSyncConfigNotification:

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

post:

requestBody:

description: Notification for Time Synchronization Service status.

required: true

content:

application/json:

schema:

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

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'

/{afId}/subscriptions/{subscriptionId}/configurations/{instanceReference}:

get:

summary: read an active subscription for the AF and the subscription Id

tags:

- Individual Time Synchronization Exposure Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

- name: instanceReference

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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 configuration resource

tags:

- Individual Time Synchronization Exposure Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

- name: instanceReference

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing configuration

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful deletion of the existing configuration)

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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: Deletes an already existing configuration

tags:

- Individual Time Synchronization Exposure Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

- name: instanceReference

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'204':

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

'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'

/{afId}/asti-configurations:

get:

summary: read all of the active configuration of 5G access stratum time distribution for the AF

tags:

- ASTI Configurations

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active configurations for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new configuration resource

tags:

- ASTI Configurations

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new configuration creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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'

/{afId}/asti-configurations/retrieve:

post:

summary: "Request the status of the 5G access stratum time distribution for a list of UEs."

tags:

- ASTI Configurations Retrieve (Document)

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: Contains the information for the status of the 5G access stratum time distribution

required: true

content:

application/json:

schema:

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

responses:

'200':

description: Successful retrieval of the status of the 5G access stratum time distribution

content:

application/json:

schema:

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

'400':

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

'401':

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

'403':

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

'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'

/{afId}/asti-configurations/{astiConfigId}:

get:

summary: read an active configuration for the AF and the configuration Id

tags:

- Individual ASTI Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: astiConfigId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active configuration)

content:

application/json:

schema:

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

'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'

delete:

summary: Deletes an already existing configuration

tags:

- Individual ASTI Configuration

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: astiConfigId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'204':

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

'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:

TimeSyncExposureSubsc:

description: >

Contains requested parameters for the subscription to the notification

of time synchronization capability.

type: object

properties:

exterGroupId:

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

gpsis:

type: array

items:

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

minItems: 1

description: >

Contains a list of UE for which the time synchronization capabilities is requested.

anyUeInd:

type: boolean

description: >

Any UE indication. This IE shall be present if the event subscription

is applicable to any UE. Default value "false" is used, if not present.

afServiceId:

type: string

description: Identifies a service on behalf of which the AF is issuing the request.

dnn:

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

snssai:

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

subsNotifId:

type: string

description: Notification Correlation ID assigned by the NF service consumer.

subsNotifUri:

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

subscribedEvents:

type: array

items:

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

minItems: 1

description: Subscribed events

eventFilters:

type: array

items:

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

minItems: 1

description: >

Contains the filter conditions to match for notifying the event(s)

of time synchronization capabilities for a list of UE(s).

notifMethod:

$ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NotificationMethod'

maxReportNbr:

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

expiry:

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

repPeriod:

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

requestTestNotification:

type: boolean

description: >

Set to true by the SCS/AS to request the SCEF to send a test notification

as defined in subclause 5.2.5.3 of 3GPP TS 29.122. Set to false or omitted otherwise.

websockNotifConfig:

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

suppFeat:

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

required:

- subsNotifUri

- subsNotifId

TimeSyncCapability:

description: Contains time synchronization capability.

type: object

properties:

upNodeId:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

gmCapables:

type: array

items:

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

asTimeRes:

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

ptpCapForUes:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the PTP capabilities supported by each of the UE(s).

The key of the map is the gpsi.

required:

- upNodeId

anyOf:

- required: [gmCapables]

- required: [asTimeRes]

TimeSyncExposureConfig:

description: Contains the Time Synchronization Configuration parameters.

type: object

properties:

upNodeId:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

reqPtpIns:

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

gmEnable:

type: boolean

description: >

Indicates that the AF requests 5GS to act as a grandmaster for PTP

or gPTP if it is included and set to true.

gmPrio:

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

timeDom:

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

uuErrorBudget:

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

configNotifId:

type: string

description: Notification Correlation ID assigned by the NF service consumer.

configNotifUri:

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

tempValidity:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/TemporalValidity'

required:

- upNodeId

- reqPtpIns

- timeDom

- configNotifId

- configNotifUri

TimeSyncExposureSubsNotif:

description: Contains the notification of time synchronization capability.

type: object

properties:

subsNotifId:

type: string

description: Notification Correlation ID assigned by the NF service consumer.

eventNotifs:

type: array

items:

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

minItems: 1

required:

- subsNotifId

- eventNotifs

SubsEventNotification:

description: Notifications about subscribed Individual Events.

type: object

properties:

event:

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

timeSyncCapas:

type: array

items:

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

minItems: 1

required:

- event

TimeSyncExposureConfigNotif:

description: Contains the notification of time synchronization service state.

type: object

properties:

configNotifId:

type: string

description: Notification Correlation ID assigned by the NF service consumer.

stateOfConfig:

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

required:

- configNotifId

- stateOfConfig

PtpCapabilitiesPerUe:

description: Contains the supported PTP capabilities per UE.

type: object

properties:

gpsi:

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

ptpCaps:

type: array

items:

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

minItems: 1

required:

- gpsi

- ptpCaps

EventFilter:

description: >

Contains the filter conditions to match for notifying the event(s) of time

synchronization capabilities.

type: object

properties:

instanceTypes:

type: array

items:

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

minItems: 1

transProtocols:

type: array

items:

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

minItems: 1

ptpProfiles:

type: array

items:

type: string

minItems: 1

PtpInstance:

description: Contains PTP instance configuration and activation requested by the AF.

type: object

properties:

instanceType:

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

protocol:

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

ptpProfile:

type: string

portConfigs:

type: array

items:

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

minItems: 1

required:

- instanceType

- protocol

- ptpProfile

ConfigForPort:

description: Contains configuration for each port.

type: object

properties:

gpsi:

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

n6Ind:

type: boolean

ptpEnable:

type: boolean

logSyncInter:

type: integer

logSyncInterInd:

type: boolean

logAnnouInter:

type: integer

logAnnouInterInd:

type: boolean

StateOfConfiguration:

description: Contains the state of the time synchronization configuration.

type: object

properties:

state:

type: boolean

description: When it is set to true, it indicates the states of configurations for NW-TT port and all DS-TT port are active. When it is set to false, it indicates the state of configurations for NW-TT port or at least one of the DS-TT port are inactive

inactiveNwtt:

type: boolean

description: When it is included and set to true, it indicates the state of configuration for NW-TT port is inactive. It may be included when the "state" attribute is set to false. Default value is false.

inactiveDstts:

description: Contains the UE identities. The states of configurations for DS-TT ports corresponding to these UEs are inactive. It may be included when the "state" attribute is set to false.

type: array

items:

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

minItems: 1

required:

- state

Protocol:

anyOf:

- type: string

enum:

- ETH

- IPV4

- IPV6

- type: string

description: >

This string identifies supported protocol.

description: |

Possible values are:

- ETH: Indicates Ethernet as defined in IEEE Std 1588 [45] Annex E is supported.

- IPV4: Indicates IPv4 as defined in IEEE Std 1588 [45] Annex C is supported.

- IPV6: Indicates IPv6 as defined in IEEE Std 1588 [45] Annex D is supported.

AccessTimeDistributionData:

description: Contains the parameters for the creation of 5G access stratum time distribution configuration..

type: object

properties:

gpsis:

type: array

items:

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

minItems: 1

exterGroupId:

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

anyUeInd:

type: boolean

description: Identifies whether the request applies to any UE. This attribute shall set to "true" if applicable for any UE, otherwise, set to "false".

dnn:

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

snssai:

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

asTimeDisParam:

$ref: 'TS29565\_Ntsctsf\_TimeSynchronization.yaml#/components/schemas/AsTimeDistributionParam'

suppFeat:

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

required:

- asTimeDisParam

oneOf:

- required: [gpsis]

- required: [interGrpId]

- required: [anyUeInd]

StatusRequestData:

description: Contains the parameters for retrieval of the status of the access stratum time distribution for a list of UEs.

type: object

properties:

gpsis:

type: array

items:

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

minItems: 1

dnn:

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

snssai:

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

required:

- gpsis

StatusResponseData:

description: Contains the parameters for the status of the access stratum time distribution for a list of UEs.

type: object

properties:

inactiveUes:

type: array

items:

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

minItems: 1

activeUes:

type: array

items:

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

minItems: 1

ActiveUe:

description: Contains the UE identifier whose status of the access stratum time distribution is active and the optional requested time synchronization error budget.

type: object

properties:

gpsi:

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

timeSyncErrBdgt:

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

GmCapable:

anyOf:

- type: string

enum:

- GPTP

- PTP

- type: string

description: >

This string identifies supported grandmaster.

description: |

Possible values are:

- GPTP: gPTP grandmaster is supported.

- PTP: PTP grandmaste is supported.

InstanceType:

anyOf:

- type: string

enum:

- BOUNDARY\_CLOCK

- E2E\_TRANS\_CLOCK

- P2P\_TRANS\_CLOCK

- P2P\_RELAY\_INSTANCE

- type: string

description: >

This string identifies supported PTP instance type.

description: |

Possible values are:

- BOUNDARY\_CLOCK: Indicates Boundary Clock as defined in IEEE Std 1588.

- E2E\_TRANS\_CLOCK: Indicates End-to-End Transparent Clock as defined in IEEE Std 1588.

- P2P\_TRANS\_CLOCK: Indicates Peer-to-Peer Transparent Clock as defined in IEEE Std 1588.

- P2P\_RELAY\_INSTANCE: Indicates PTP Relay instance as defined in IEEE Std 802.1AS.

SubscribedEvent:

anyOf:

- type: string

enum:

- AVAILABILITY\_FOR\_TIME\_SYNC\_SERVICE

- type: string

description: >

This string identifies supported event.

description: |

Possible values are:

- AVAILABILITY\_FOR\_TIME\_SYNC\_SERVICE: The UE is availability for time synchronization service.

AsTimeResource:

anyOf:

- type: string

enum:

- ATOMIC\_CLOCK

- GNSS

- TERRESTRIAL\_RADIO

- SERIAL\_TIME\_CODE

- PTP

- NTP

- HAND\_SET

- INTERNAL\_OSCILLATOR

- OTHER

- type: string

description: >

This string identifies the supported 5G clock quality.

description: |

Possible values are:

- ATOMIC\_CLOCK: Indicates atomic clock is supported.

- GNSS: Indicates Global Navigation Satellite System is supported.

- TERRESTRIAL\_RADIO: Indicates terrestrial radio is supported.

- SERIAL\_TIME\_CODE: Indicates serial time code is supported.

- PTP: Indicates PTP is supported.

- NTP: Indicates NTP is supported.

- HAND\_SET: Indicates hand set is supported.

- INTERNAL\_OSCILLATOR: Indicates internal oscillator is supported.

- OTHER: Indicates other source of time is supported.

\* \* \* \* Next changes \* \* \* \*

# A.14 EcsAddressProvision API

openapi: 3.0.0

info:

title: 3gpp-ecs-address-provision

version: 1.0.0

description: |

API for ECS Address Provisioning.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-ecs-address-provision/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/configurations:

get:

summary: read all active configurations for a given AF

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active resources for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Creates a new configuration resource

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new resource creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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'

/{afId}/configurations/{configurationId}:

get:

summary: read an active resource for the AF and the configuration Id

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active resource)

content:

application/json:

schema:

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

'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 resource

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing resource

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful update of the existing resource)

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is sent in the response message.

'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: Deletes an already existing configuration resource

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: configurationId

in: path

description: Identifier of the configuration resource

required: true

schema:

type: string

responses:

'204':

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

'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:

EcsAddressProvision:

description: Represents ECS address provision configuration.

type: object

properties:

self:

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

ecsServerAddr:

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

spatialValidityCond:

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

tgtUe:

$ref: 'TS29522\_AnalyticsExposure.yaml#/components/schemas/TargetUeId'

suppFeat:

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

required:

- ecsServerAddr

- suppFeat

\* \* \* \* Next changes \* \* \* \*

# A.15 AMPolicyAuthorization API

openapi: 3.0.0

info:

title: 3gpp-am-policyauthorization

version: 1.0.0

description: |

API for AM policy authorization.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-am-policyauthorization/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/app-am-contexts:

post:

summary: Creates a new Individual application AM Context resource

operationId: PostAppAmContexts

tags:

- Application AM Contexts

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new resource creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

headers:

Location:

description: Contains the URI of the newly created resource.

required: true

schema:

type: string

'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:

amEventNotification:

'{$request.body#/evSubsc/eventNotifUri}':

post:

requestBody:

description: Notification of an event occurrence.

required: true

content:

application/json:

schema:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsNotification'

responses:

'204':

description: The receipt of the notification is acknowledged

'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'

/{afId}/app-am-contexts/{appAmContextId}:

get:

summary: read an existing Individual application AM context

operationId: GetAppAmContext

tags:

- Individual Application AM Context

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: appAmContextId

in: path

description: Identifier of the Individual application AM context

required: true

schema:

type: string

responses:

'200':

description: OK (A representation of the resource is successfully returned)

content:

application/json:

schema:

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

'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'

patch:

summary: partial modifies an existing Individual application AM context

operationId: ModAppAmContext

tags:

- Individual Application AM Context

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: appAmContextId

in: path

description: Identifier of the application AM context resource

required: true

schema:

type: string

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

successful modification of the resource and a representation of that

resource is returned. If a subscribed event is matched, the event

notification is also included in the response.

content:

application/json:

schema:

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

'204':

description: The successful modification

'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:

amEventNotification:

'{$request.body#/evSubsc/eventNotifUri}':

post:

requestBody:

description: Notification of an event occurrence.

required: true

content:

application/json:

schema:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsNotification'

responses:

'204':

description: The receipt of the notification is acknowledged

'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: Deletes an existing Individual Application AM Context

operationId: DeleteAppAmContext

tags:

- Individual Application AM Context

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: appAmContextId

in: path

description: string identifying the Individual aaplication AM context resource

required: true

schema:

type: string

responses:

'204':

description: The deletion is confirmed without returning additional data.

'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'

/{afId}/app-am-contexts/{appAmContextId}/events-subscription:

put:

summary: creates or modifies an AM Policy Events Subscription sub-resource.

operationId: UpdateAmEventsSubsc

tags:

- AM Policy Events Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: appAmContextId

in: path

description: string identifying the AM Policy Events Subscription subresource

required: true

schema:

type: string

requestBody:

description: >

Creation or modification of an application AM Policy Events Subscription sub-resource.

required: true

content:

application/json:

schema:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsSubscData'

responses:

'201':

description: >

The creation of the application AM Policy Events Subscription sub-resource

is confirmed and its representation is returned. If an AM Event is matched,

the response also includes the notification.

content:

application/json:

schema:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsSubscRespData'

headers:

Location:

description: >

Contains the URI of the created AM Policy Events Subscription

subresource, according to the structure

{apiRoot}/3gpp-am-policyauthorization/v1/{afId}/app-am-

contexts/{appAmContextId}/events-subscription}

required: true

schema:

type: string

'200':

description: >

The modification of the AM Policy Events Subscription subresource is confirmed

and its representation is returned. If an AM Event is matched, the response also

includes the notification.

content:

application/json:

schema:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsSubscRespData'

'204':

description: >

The modification of the AM Policy Events Subscription subresource is confirmed

without returning additional data.

'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:

amEventNotification:

'{$request.body#/evSubsc/eventNotifUri}':

post:

requestBody:

description: Contains the information for the notification of an event occurrence.

required: true

content:

application/json:

schema:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsNotification'

responses:

'204':

description: The receipt of the notification is acknowledged.

'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: deletes the AM Policy Events Subscription sub-resource

operationId: DeleteAmEventsSubsc

tags:

- AM Policy Events Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: appAmContextId

in: path

description: string identifying the Individual Application AM Context resource.

required: true

schema:

type: string

responses:

'204':

description: >

The deletion of the of the AM Policy Events Subscription subresource

is confirmed without returning additional data.

'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:

AppAmContextExpData:

description: Represents an Individual application AM context exposure resource.

type: object

properties:

self:

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

evSubscs:

type: array

items:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsSubscData'

minItems: 1

gpsi:

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

afAppIds:

type: array

items:

type: string

minItems: 1

description: Identifies an application.

highThruInd:

type: boolean

covReqs:

type: array

items:

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

minItems: 1

policyDuration:

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

trafficFilters:

type: array

items:

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

minItems: 1

ethTrafficFilters:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

minItems: 1

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by the AF to request the NEF to send a test notification

as defined in subclause 5.2.5.3 of 3GPP TS 29.122. Set to false or omitted otherwise.

websockNotifConfig:

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

required:

- gpsi

anyOf:

- required: [highThruInd]

- required: [covReqs]

oneOf:

- required: [afAppIds]

- required: [trafficFilters]

- required: [ethTrafficFilters]

AppAmContextExpUpdateData:

description: >

Contains the modification(s) to be applied to the Individual application

AM context exposure resource.

type: object

properties:

evSubscs:

type: array

items:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsSubscDataRm'

minItems: 1

afAppIds:

type: array

items:

type: string

minItems: 1

description: Identifies an application.

highThruInd:

type: boolean

covReqs:

type: array

items:

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

minItems: 1

policyDuration:

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

trafficFilters:

type: array

items:

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

minItems: 1

ethTrafficFilters:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

minItems: 1

notificationDestination:

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

GeographicalArea:

description: Contains geographical area information (e.g.a civic address or shapes).

type: object

properties:

civicAddress:

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

shapes:

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

AppAmContextExpRespData:

description: >

It represents a response to a modification or creation request of an Individual

Application AM resource. It may contain the notification of the already met events

anyOf:

- $ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AppAmContextData'

- $ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/AmEventsNotification'

\* \* \* \* Next changes \* \* \* \*

# A.16 AMInfluence API

openapi: 3.0.0

info:

title: AMInfluence

version: 1.0.0

description: |

AMInfluence API Service.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

servers:

- url: '{apiRoot}/3gpp-am-influence/v1'

variables:

apiRoot:

default: https://example.com

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

security:

- {}

- oAuth2ClientCredentials: []

paths:

/{afId}/subscriptions:

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

get:

summary: Read all of the active subscriptions for the AF.

tags:

- AM Influence Subscription

responses:

'200':

description: OK (Successful get all of the active subscriptions for the AF).

content:

application/json:

schema:

type: array

items:

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

'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: Create a new subscription to AM influence.

operationId: CreateAMInfluenceSubcription

tags:

- AM Influence Subscription

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Create a new Individual AM Influence Subscription resource.

content:

application/json:

schema:

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

headers:

Location:

description: >

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

{apiRoot}/3gpp-am-influence/v1/{afId}/subscriptions/{subscriptionId}.

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:

notificationDestination:

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

post:

requestBody:

required: true

content:

application/json:

schema:

type: array

items:

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

minItems: 1

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'

/{afId}/subscriptions/{subscriptionId}:

parameters:

- name: afId

in: path

description: Identifier of the AF.

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource.

required: true

schema:

type: string

get:

summary: Read an active subscription identified by the subscriptionId.

tags:

- Individual AM Influence Subscription

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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: Update/Replace an existing subscription resource.

tags:

- Individual AM Influence Subscription

requestBody:

description: Parameters to update/replace the existing subscription.

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful update of the subscription)

content:

application/json:

schema:

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

'204':

description: No Content

'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: Update/Replace an existing subscription resource.

tags:

- Individual AM Influence Subscription

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The subscription was modified successfully.

content:

application/json:

schema:

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

'204':

description: No Content

'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: Delete an existing subscription.

tags:

- Individual AM Influence Subscription

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: '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: {}

schemas:

AmInfluSub:

description: Represents an AM influence subscription.

type: object

properties:

afTransId:

type: string

supi:

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

gpsi:

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

externalGroupId:

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

anyUeInd:

type: boolean

description: >

Identifies whether the AF request applies to any UE. This attribute shall

set to "true" if applicable for any UE, otherwise, set to "false".

dnnSnssaiInfos:

type: array

items:

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

minItems: 1

description: Each of the element identifies a (DNN, S-NSSAI) combination.

afAppIds:

type: array

items:

type: string

minItems: 1

description: Each of the element identifies an application.

highThruInd:

type: boolean

geoAreas:

type: array

items:

$ref: 'TS29522\_AMPolicyAuthorization.yaml#/components/schemas/GeographicalArea'

minItems: 1

description: Identifies geographic areas of the user where the request is applicable.

policyDuration:

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

self:

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

subscribedEvents:

type: array

items:

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

minItems: 1

description: Indicates one or more AM influence related events.

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by the AF to request the NEF to send a test notification

as defined in subclause 5.2.5.3 of 3GPP TS 29.122. Set to false or omitted otherwise.

websockNotifConfig:

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

suppFeat:

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

required:

- afTransId

anyOf:

- required: [highThruInd]

- required: [geoAreas]

oneOf:

- required: [gpsi]

- required: [externalGroupId]

- required: [anyUeInd]

AmInfluSubPatch:

description: >

Represents parameters to request the modification of an AM influence subscription resource.

type: object

properties:

highThruInd:

type: boolean

geoAreas:

type: array

items:

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

minItems: 1

description: Identifies geographic areas of the user where the request is applicable.

policyDuration:

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

dnnSnssaiInfos:

type: array

items:

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

minItems: 1

description: Each of the element identifies a (DNN, S-NSSAI) combination.

afAppIds:

type: array

items:

type: string

minItems: 1

description: Each of the element identifies an application.

subscribedEvents:

type: array

items:

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

minItems: 1

description: Indicates one or more AM influence related events.

notificationDestination:

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

afTransId:

type: string

description: Identifies an NEF Northbound interface transaction, generated by the AF.

AmInfluEventNotif:

description: Represents an AM influence event notification.

type: object

properties:

afTransId:

type: string

event:

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

geoAreas:

type: array

items:

$ref: 'TS29522\_AMPolicyAuthorization.yaml#/components/schemas/GeographicalArea'

minItems: 1

description: Identifies geographic areas of the user where the request is applicable.

required:

- event

- afTransId

DnnSnssaiInformation:

description: Represents a (DNN, SNSSAI) combination.

type: object

properties:

dnn:

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

snssai:

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

# ENUMERATIONS DATA TYPES

#

AmInfluEvent:

description: Represents the service area coverage outcome event.

anyOf:

- type: string

enum:

- SERVICE\_AREA\_COVRG\_OUTCOME

- type: string

\* \* \* \* Next changes \* \* \* \*

# A.17 MBSTMGI API

openapi: 3.0.0

info:

title: 3gpp-mbs-tmgi

version: 1.0.0

description: |

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

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

url: 'https://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 MBS 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).

operationId: DeallocateTmgi

tags:

- TMGI Deallocation

requestBody:

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

\* \* \* \* Next changes \* \* \* \*

# A.18 MBSSession API

openapi: 3.0.0

info:

title: 3gpp-mbs-session

version: 1.0.0

description: |

API for MBS Session management.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

servers:

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

variables:

apiRoot:

default: https://example.com

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

security:

- {}

- oAuth2ClientCredentials: []

paths:

/mbs-sessions:

post:

summary: Create

tags:

- MBS sessions collection

operationId: Create

requestBody:

description: representation of the MBS session to be created in the NEF

required: true

content:

application/json:

schema:

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

responses:

'201':

description: successful creation of an MBS session

content:

application/json:

schema:

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

headers:

Location:

description: >

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

{apiRoot}/3gpp-mbs-session/v1/mbssessions/{mbsSessionId}

required: true

schema:

type: string

'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'

/mbs-sessions/{mbsSessionId}:

parameters:

- name: mbsSessionId

in: path

description: Identifier of the MBS Session

required: true

schema:

type: string

patch:

summary: Request the Modification of an existing Individual MBS Session resource.

tags:

- Individual MBS Session

requestBody:

required: true

content:

application/json-patch+json:

schema:

type: array

items:

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

minItems: 1

responses:

'204':

description: No Content. The Individual MBS Session resource was successfully modified.

'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: Deletes an already existing MBS Session resource

tags:

- Individual MBS Session

responses:

'204':

description: No Content (Successful deletion of the existing MBS Session resource)

'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'

/mbs-sessions/subscriptions:

get:

summary: read all of the active MBS Sessions status subscriptions

tags:

- MBS Session Subscriptions

responses:

'200':

description: OK.

content:

application/json:

schema:

type: array

items:

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

'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: Creates a new MBS Session subscription resource

tags:

- MBS Session subscriptions

requestBody:

description: Request to create a new MBS Session subscription resource

required: true

content:

application/json:

schema:

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

callbacks:

notificationUri:

'{request.body#/notificationUri}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content (successful notification)

'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'

responses:

'201':

description: Created (Successful creation of subscription)

content:

application/json:

schema:

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

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'

/mbs-sessions/subscriptions/{subscriptionId}:

parameters:

- name: subscriptionId

in: path

description: Identifier of the MBS Session subscription resource

required: true

schema:

type: string

get:

summary: read an active MBS Session subscriptions for the SCS/AS and the subscription Id

tags:

- Individual MBS Session subscription

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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'

delete:

summary: Deletes an already existing subscription

tags:

- Individual MBS Session Subscription

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: '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:

#

# STRUCTURED DATA TYPES

#

MbsSessionCreateReq:

description: Data within Create Request

type: object

properties:

afId:

type: string

mbsSession:

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

required:

- mbsSession

MbsSessionCreateRsp:

description: Data within Create Response

type: object

properties:

mbsSession:

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

required:

- mbsSession

MbsSessionSubsc:

description: Represents an MBS Session Subscription.

type: object

properties:

afId:

type: string

subscription:

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

required:

- subscription

MbsSessionStatusNotif:

description: Represents an MBS Session Status notification.

type: object

properties:

eventList:

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

#

# SIMPLE DATA TYPES

#

#

# ENUMERATIONS

#

\* \* \* \* Next changes \* \* \* \*

# A.19 EASDeployment API

openapi: 3.0.0

info:

title: 3gpp-eas-deployment

version: 1.0.0

description: |

API for AF provisioned EAS Deployment.

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externalDocs:

description: >

3GPP TS 29.522 V17.6.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-eas-deployment/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/eas-deployment-info:

get:

summary: read all EAS Deployment information for a given AF

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the EAS Deployment information for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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: Create a new Individual EAS Deployment information resource.

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new resource creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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'

/{afId}/eas-deployment-info/{easDeployInfoId}:

get:

summary: read an active Individual EAS Deployment Information resource for the AF

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: easDeployInfoId

in: path

description: Identifier of an EAS Deployment Information.

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active resource)

content:

application/json:

schema:

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

'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 resource

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: easDeployInfoId

in: path

description: Identifier of the EAS Deployment information resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing resource

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful update of the existing resource)

content:

application/json:

schema:

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

'204':

description: Successful case. The resource has been successfully updated and no additional content is sent in the response message.

'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: Deletes an already existing EAS Deployment information resource

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: easDeployInfoId

in: path

description: Identifier of the EAS Deployment information resource

required: true

schema:

type: string

responses:

'204':

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

'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:

EasDeployInfo:

description: Represents EAS Deployment Information.

type: object

properties:

self:

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

afServiceId:

type: string

fqdns:

type: array

items:

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

minItems: 1

appId:

type: string

dnn:

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

snssai:

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

externalGroupId:

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

dnaiInfos:

type: object

additionalProperties:

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

minProperties: 1

description: list of DNS server identifier (consisting of IP address and port) and/or IP address(s) of the EAS in the local DN for each DNAI. The key of map is the DNAI.

required:

- fqdns

DnaiInformation:

description: Represents DNAI information.

type: object

properties:

dnai:

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

dnsServIds:

type: array

items:

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

minItems: 1

easIpAddrs:

type: array

items:

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

minItems: 1

required:

- dnai

anyOf:

- required: [dnsServIds]

- required: [easIpAddrs]

DnsServerIdentifier:

description: Represents DNS server identifier (consisting of IP address and port).

type: object

properties:

dnsServIpAddr:

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

portNumber:

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

required:

- dnsServIpAddr

- portNumber

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