**3GPP TSG-CT WG3 Meeting #123e *C3-224740***

**E-meeting, 18th - 26th, August, 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.517** | **CR** | **0086** | **rev** | **-** | **Current version:** | **17.6.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Update of info and externalDocs fields | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2022-08-27 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | CRs modifying the Naf\_EventExposure API have been agreed and the version number of the corresponding OpenAPI file thus needs to be incremented following the rules in TS 29.501, subclause 4.3.1.  The following agreed CRs update theOpenAPI file for **Naf\_EventExposure** **API** for the present release:  + TS 29.517 CR#0085 introduces backward compatible changes  + TS 29.517 CR#0076 introduces backward compatible feature  + TS 29.517 CR#0077 introduces backward compatible correction  + TS 29.517 CR#0078 introduces backward compatible correction  + TS 29.517 CR#0079 introduces backward compatible correction  + TS 29.517 CR#0080 introduces backward compatible correction  The API version need to be updated from 1.1.0 to1.2.0.  Hence, update the corresponding TS version in externalDocs field to 17.7.0. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Update the API version number and TS version in externalDocs field for the above API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect API version number and TS version in externalDocs field. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

# A.2 Naf\_EventExposure API

openapi: 3.0.0

info:

version: 1.2.0

title: Naf\_EventExposure

description: |

AF Event Exposure Service.

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externalDocs:

description: >

3GPP TS 29.517 V17.7.0; 5G System; Application Function Event Exposure Service; Stage 3.

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.517/

servers:

- url: '{apiRoot}/naf-eventexposure/v1'

variables:

apiRoot:

default: https://example.com

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

security:

- {}

- oAuth2ClientCredentials: []

paths:

/subscriptions:

post:

summary: Creates a new Individual Application Event Exposure Subscription resource

operationId: PostAfEventExposureSubsc

tags:

- Application Event Subscription (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Success

content:

application/json:

schema:

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

headers:

Location:

description: >

Contains the URI of the created individual application event subscription resource

required: true

schema:

type: string

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

callbacks:

AfEventExposureNotif:

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

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content, Notification was successful

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

/subscriptions/{subscriptionId}:

get:

summary: "Reads an existing Individual Application Event Subscription"

operationId: GetAfEventExposureSubsc

tags:

- Individual Application Event Subscription (Document)

parameters:

- name: subscriptionId

in: path

description: Application Event Subscription ID

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. Resource representation is returned

content:

application/json:

schema:

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

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

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

'403':

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

'404':

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

'406':

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

'429':

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

'500':

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

'503':

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

default:

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

put:

summary: "Modifies an existing Individual Application Event Subscription "

operationId: PutAfEventExposureSubsc

tags:

- Individual Application Event Subscription (Document)

requestBody:

required: true

content:

application/json:

schema:

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

parameters:

- name: subscriptionId

in: path

description: Application Event Subscription ID

required: true

schema:

type: string

responses:

'200':

description: OK. Resource was successfully modified and representation is returned

content:

application/json:

schema:

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

'204':

description: No Content. Resource was successfully modified

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

delete:

summary: "Cancels an existing Individual Application Event Subscription "

operationId: DeleteAfEventExposureSubsc

tags:

- Individual Application Event Subscription (Document)

parameters:

- name: subscriptionId

in: path

description: Application Event Subscription ID

required: true

schema:

type: string

responses:

'204':

description: No Content. Resource was successfully deleted

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

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

'403':

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

'404':

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

'429':

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

'500':

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

'503':

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

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUri}'

scopes: {}

description: >

For trusted AF, the 'naf-eventexposure' shall be used as 'scopes' and

'{nrfApiRoot}/oauth2/token' shall be used as 'tokenUri'.

schemas:

AfEventExposureNotif:

description: >

Represents notifications on application event(s) that occurred for an Individual Application

Event Subscription resource.

type: object

properties:

notifId:

type: string

eventNotifs:

type: array

items:

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

minItems: 1

required:

- notifId

- eventNotifs

AfEventExposureSubsc:

description: Represents an Individual Application Event Subscription resource.

type: object

properties:

eventsSubs:

type: array

items:

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

minItems: 1

eventsRepInfo:

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

notifUri:

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

notifId:

type: string

eventNotifs:

type: array

items:

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

minItems: 1

suppFeat:

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

required:

- eventsSubs

- eventsRepInfo

- notifId

- notifUri

AfEventNotification:

description: Represents information related to an event to be reported.

type: object

properties:

event:

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

timeStamp:

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

svcExprcInfos:

type: array

items:

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

minItems: 1

ueMobilityInfos:

type: array

items:

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

minItems: 1

ueCommInfos:

type: array

items:

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

minItems: 1

excepInfos:

type: array

items:

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

minItems: 1

congestionInfos:

type: array

items:

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

minItems: 1

perfDataInfos:

type: array

items:

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

minItems: 1

dispersionInfos:

type: array

items:

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

minItems: 1

collBhvrInfs:

type: array

items:

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

minItems: 1

qoeMetrInfos:

type: array

items:

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

minItems: 1

consumpInfos:

type: array

items:

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

minItems: 1

netAssInvInfos:

type: array

items:

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

minItems: 1

chgPlyInvInfos:

type: array

items:

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

minItems: 1

msAccActInfos:

type: array

items:

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

minItems: 1

required:

- event

- timeStamp

EventsSubs:

description: Represents an event to be subscribed and the related event filter information.

type: object

properties:

event:

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

eventFilter:

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

required:

- event

- eventFilter

EventFilter:

description: Represents event filter information for an event.

type: object

properties:

gpsis:

type: array

items:

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

minItems: 1

supis:

type: array

items:

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

minItems: 1

exterGroupIds:

type: array

items:

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

minItems: 1

interGroupIds:

type: array

items:

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

anyUeInd:

type: boolean

appIds:

type: array

items:

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

minItems: 1

locArea:

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

collAttrs:

type: array

items:

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

minItems: 1

ServiceExperienceInfoPerApp:

description: Contains service experience information associated with an application.

type: object

properties:

appId:

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

appServerIns:

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

svcExpPerFlows:

type: array

items:

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

minItems: 1

gpsis:

type: array

items:

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

minItems: 1

supis:

type: array

items:

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

minItems: 1

required:

- svcExpPerFlows

ServiceExperienceInfoPerFlow:

description: Contains service experience information associated with a service flow.

type: object

properties:

svcExprc:

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

timeIntev:

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

dnai:

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

ipTrafficFilter:

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

ethTrafficFilter:

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

SvcExperience:

description: Contains a mean opinion score with the customized range.

type: object

properties:

mos:

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

upperRange:

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

lowerRange:

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

UeMobilityCollection:

description: Contains UE mobility information associated with an application.

type: object

properties:

gpsi:

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

supi:

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

appId:

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

ueTrajs:

type: array

items:

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

minItems: 1

required:

- appId

- ueTrajs

UeCommunicationCollection:

description: Contains UE communication information associated with an application.

type: object

properties:

gpsi:

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

supi:

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

exterGroupId:

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

interGroupId:

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

appId:

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

comms:

type: array

items:

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

minItems: 1

required:

- appId

- comms

UeTrajectoryCollection:

description: Contains UE trajectory information associated with an application.

type: object

properties:

ts:

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

locArea:

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

required:

- ts

- locArea

CommunicationCollection:

description: Contains communication information.

type: object

properties:

startTime:

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

endTime:

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

ulVol:

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

dlVol:

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

required:

- startTime

- endTime

- ulVol

- dlVol

ExceptionInfo:

description: Represents the exceptions information provided by the AF.

type: object

properties:

ipTrafficFilter:

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

ethTrafficFilter:

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

exceps:

type: array

items:

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

minItems: 1

required:

- exceps

oneOf:

- required: [ipTrafficFilter]

- required: [ethTrafficFilter]

UserDataCongestionCollection:

description: Contains User Data Congestion Analytics related information collection.

type: object

properties:

appId:

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

ipTrafficFilter:

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

timeInterv:

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

thrputUl:

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

thrputDl:

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

thrputPkUl:

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

thrputPkDl:

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

oneOf:

- required: [appId]

- required: [ipTrafficFilter]

PerformanceDataCollection:

description: Contains Performance Data Analytics related information collection.

type: object

properties:

appId:

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

ueIpAddr:

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

ipTrafficFilter:

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

ueLoc:

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

appLocs:

type: array

items:

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

minItems: 1

asAddr:

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

perfData:

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

timeStamp:

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

required:

- perfData

- timeStamp

PerformanceData:

description: Contains Performance Data.

type: object

properties:

pdb:

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

plr:

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

thrputUl:

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

thrputDl:

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

AddrFqdn:

description: IP address and/or FQDN.

type: object

properties:

ipAddr:

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

fqdn:

type: string

description: Indicates an FQDN.

DispersionCollection:

description: Contains the dispersion information collected for an AF.

type: object

properties:

gpsi:

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

supi:

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

ueAddr:

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

dataUsage:

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

flowDesp:

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

appId:

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

dnais:

type: array

items:

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

minItems: 1

appDur:

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

required:

- dataUsage

oneOf:

- required: [gpsi]

- required: [supi]

- required: [ueAddr]

CollectiveBehaviourFilter:

description: Contains the collective behaviour filter information to be collected from UE.

type: object

properties:

type:

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

value:

type: string

description: Value of the parameter type as in the type attribute.

listOfUeInd:

type: boolean

description: >

Indicates whether request list of UE IDs that fulfill a collective behaviour within the

area of interest. This attribute shall set to "true" if request the list of UE IDs,

otherwise, set to "false". May only be present and sets to "true" if "AfEvent" sets to

"COLLECTIVE\_BEHAVIOUR".

required:

- type

- value

CollectiveBehaviourInfo:

description: Contains the collective behaviour information to be reported to the subscriber.

type: object

properties:

colAttrib:

type: array

items:

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

minItems: 1

noOfUes:

type: integer

description: Total number of UEs that fulfil a collective within the area of interest.

appIds:

type: array

items:

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

minItems: 1

extUeIds:

type: array

items:

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

minItems: 1

ueIds:

type: array

items:

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

minItems: 1

required:

- colAttrib

oneOf:

- required: [extUeIds]

- required: [ueIds]

PerUeAttribute:

description: UE application data collected per UE.

type: object

properties:

ueDest:

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

route:

type: string

avgSpeed:

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

timeOfArrival:

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

QoeMetricsCollection:

description: Contains the QoE metrics information collected for an UE Application via AF.

type: object

properties:

msQoeMetrics:

type: array

items:

$ref: 'TS26512\_M1\_MetricsReportingProvisioning.yaml#/components/schemas/MetricsReportingConfiguration'

minItems: 1

ConsumptionCollection:

description: Contains the Consumption information collected for an UE Application via AF.

type: object

properties:

consumps:

type: array

items:

type: string

minItems: 1

required:

- consumps

NetAssInvocationCollection:

description: Contains Network Assistance invocations collected for an UE Application via AF.

type: object

properties:

netAssInvocs:

type: array

items:

type: string

minItems: 1

required:

- netAssInvocs

ChargPolicyInvocationCollection:

description: Contains Charging and Policy invocations collected for an UE Application via AF.

type: object

properties:

chgPlyInvocs:

type: array

items:

type: string

minItems: 1

required:

- chgPlyInvocs

MSAccessActivityCollection:

description: Contains Media Streaming access activity collected for an UE Application via AF.

type: object

properties:

msAccActs:

type: array

items:

type: string

minItems: 1

required:

- msAccActs

# Simple data types and Enumerations

AfEvent:

description: Represents Application Events.

anyOf:

- type: string

enum:

- SVC\_EXPERIENCE

- UE\_MOBILITY

- UE\_COMM

- EXCEPTIONS

- USER\_DATA\_CONGESTION

- PERF\_DATA

- DISPERSION

- COLLECTIVE\_BEHAVIOUR

- QOE\_METRICS

- CONSUMPTION

- NET\_ASSIST\_INVOCATION

- CHARGING\_POLICY\_INVOCATION

- MS\_ACCESS\_ACTIVITY

- type: string

CollectiveBehaviourFilterType:

description: Represents collective behaviour parameter type.

anyOf:

- type: string

enum:

- COLLECTIVE\_ATTRIBUTE

- DATA\_PROCESSING

- type: string

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