**3GPP TSG-CT WG3 Meeting #134 *C3-242458***

**Changsha, China, 15 - 19 April, 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.549** | **CR** | **0260** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Clarification for Exposure level requirements | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Lenovo | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ADAES | | | | |  | ***Date:*** | | | 2024-03-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories 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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | CR#0020 against TS 23.436 in document S6-240504 clarifies "Exposure level requirements" information element in clause 8.2.4.2 of TS 23.436, is indeed reporting requirement which can be adopted as partial information of ReportingInformation data type, defined in 3GPP TS 29.523. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Defining ReportingInformation data type as re-used data type for SS\_ADAE\_VALPerformanceAnalytics API.  Adding repReq attribute to AppPerfSub.  Change of "repReqs" to "repReq" in SS\_ADAE\_Ue2UePerformanceAnalytics API.  Removing EN for exposure level requirements in clause 7.10.1.4.2.2. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Stage 3 is is not in accordance with stage 2. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.10.1.4.1, 7.10.1.4.2.2, 7.10.3.4.1, A.15, A.17 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 introduces a backwards compatible correction into the OpenAPI files of the SS\_ADAE\_VALPerformanceAnalytics API and SS\_ADAE\_Ue2UePerformanceAnalytics API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

##### 7.10.1.4.1 General

This clause specifies the application data model supported by the API. Data types listed in clause 6.2 apply to this API.

Table 7.10.1.4.1-1 specifies the data types defined specifically for the SS\_ADAE\_VALPerformanceAnalytics API service.

**Table 7.10.1.4.1-1\_SS\_ADAE\_VALPerformanceAnalytics API specific Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Section defined** | **Description** | **Applicability** |
| AppPerfSub | 7.10.1.4.2.2 | Subscription to the VAL application performance analytics |  |
| AppPerfNotif | 7.10.1.4.2.3 | Notification information of the application performance analytics. |  |
| ProdProfileInfo | 7.10.1.4.2.4 | Information about the data producer's support data collection and its access to the produced data |  |
| AnalyticsCategory | 7.10.1.4.3.3 | Represents the category of analytics. |  |
| AnalyticsMode | 7.10.1.4.3.7 | Represents the mode of analytics. |  |
| AnalyticsType | 7.10.1.4.2.6 | Represents the type of analytics. |  |
| ProducerCap | 7.10.1.4.3.5 |  |  |
| ProducerType | 7.10.1.4.3.4 | Type of the data producer. |  |
| ProducerData | 7.10.1.4.3.5 | Type of the data produced by the data producer. |  |
| ProducerRole | 7.10.1.4.3.6 | The role of the data producer. |  |

Table 7.10.1.4.1-2 specifies data types re-used by the SS\_ADAE\_VALPerformanceAnalytics API service:

**Table 7.10.1.4.1-2: Re-used Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Reference** | **Comments** | **Applicability** |
| BitRate | 3GPP TS 29.571 [21] | Represents a bit rate measurement value. |  |
| DateTime | 3GPP TS 29.571 [21] | Used to represent a date and time. |  |
| DurationSec | 3GPP TS 29.122 [3] | Represents a period of time in units of seconds. |  |
| LocationArea5G | 3GPP TS 29.122 [3] | Represents location information. |  |
| ReportingInformation | 3GPP TS 29.523 [20] | Used to indicate the reporting requirement, only the following information are applicable for SEAL:  - immRep  - notifMethod  - maxReportNbr  - monDur  - repPeriod |  |
| ScheduledCommunicationTime | 3GPP TS 29.122 [3] | Used to define the time frame for message filters. |  |
| SupportedFeatures | 3GPP TS 29.571 [21] | Represents the supported features. |  |
| TimeWindow | 3GPP TS 29.122 [3] | Represents a time window. |  |
| Uinteger | 3GPP TS 29.571 [21] | Represents an unsigned integer. |  |
| Uri | 3GPP TS 29.122 [3] | Represents a URI. |  |
| ValTargetUe | Clause 7.3.1.4.2.3 | Used to indicate either VAL User ID or VAL UE ID. |  |

\* \* \* Next Change \* \* \* \*

###### 7.10.1.4.2.2 Type: AppPerfSub

**Table 7.10.1.4.2.5-1: Definition of type AppPerfSub**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** | **Applicability** |
| notifUri | Uri | M | 1 | Represents the notification URI. |  |
| analyticsType | AnalyticsType | M | 1 | Identifies the type of the VAL application performance analytics. Only the "category" attribute is applicable here. |  |
| valServiceId | string | M | 1 | The identifier of the VAL service, to which the performance analytics subscription is applied. |  |
| valUeIds | array(ValTargetUe) | O | 1..N | A list of identities of one or more VAL UEs, whose performance analytics are subscribed to. |  |
| valServerId | string | O | 0..1 | If the consumer is different from the VAL server, this identifier represents the VAL server to which the VAL performance analytics subscription is applied. |  |
| dataProdProfile | ProdProfileInfo | O | 0..1 | Characteristics of the data producer to be used. |  |
| confLevel | Uinteger | O | 0..1 | Indicates the preferred confidence level of the prediction.  Minimum = 0. Maximum = 100. |  |
| area | LocationArea5G | O | 0..1 | The geographical or service area to which the VAL performance analytics subscription is applied. |  |
| timeValidity | TimeWindow | O | 0..1 | The time validity of the subscription. |  |
| repReq | ReportingInformation | O | 0..1 | Represents the reporting requirement of the VAL performance analytics subscription. |  |
| suppFeat | SupportedFeatures | C | 0..1 | Used to negotiate the supported features of the API as defined in clause 7.10.1.6.  This attribute shall be provided in the HTTP POST response of successful subscription creation if it was provided in the request. |  |



\* \* \* Next Change \* \* \* \*

##### 7.10.3.4.1 General

This clause specifies the application data model supported by the API. Data types listed in clause 6.2 apply to this API.

Table 7.10.3.4.1-1 specifies the data types defined specifically for the SS\_ADAE\_Ue2UePerformanceAnalytics API service.

Table 7.10.3.4.1-1\_SS\_ADAE\_Ue2UePerformanceAnalytics API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| U2UAnalytics | 7.4.2.4.3.1 | Represents the UE-to-UE analytics types. |  |
| U2UAnalyticsData | 7.10.3.4.2.6 | Represents the UE-to-UE analytics data. |  |
| U2UPair | 7.10.3.4.2.7 | Represents the UE-to-UE pair. |  |
| U2UPerfNotif | 7.10.3.4.2.3 | Represents the UE-to-UE session performance analytics notification. |  |
| U2UPerfSub | 7.10.3.4.2.2 | Represents the UE-to-UE session performance analytics subscription. |  |
| U2UReportingRequirements | 7.10.3.4.2.4 | Represents the UE-to-UE session performance analytics reporting requirements. |  |
| U2UReportingGranularity | 7.4.2.4.3.2 | Represents the UE-to-UE reporting granularity. |  |
| U2UThreshold | 7.10.3.4.2.5 | Represents the threshold for UE-to-UE session performance analytics. |  |

Table 7.10.3.4.1-2 specifies data types re-used by the SS\_ADAE\_Ue2UePerformanceAnalytics API service:

Table 7.10.3.4.1-2: Re-used Data Types

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Data type | Reference | | Comments | | Applicability |
| AnalyticsType | Clause 7.10.1.4.2.6 | | Type of analytics for the event of the VAL application performance analytics. | |  |
| DurationSec | 3GPP TS 29.122 [3] | | Represents a period of time in units of seconds. | |  |
| LocationArea5G | 3GPP TS 29.122 [3] | | Represents location information. | |  |
| MatchingDirection | | 3GPP TS 29.520 [33] | | Used to indicate a threshold matching direction. |  |
| NotificationMethod | | 3GPP TS 29.508 [32] | | Used to indicate the reporting mode. |  |
| PacketErrRate | | 3GPP TS 29.571 [21] | | Used to represent packet error rate. |  |
| ReportingInformation | | 3GPP TS 29.523 [20] | | Used to indicate the reporting requirement, only the following information are applicable for SEAL:  - immRep  - notifMethod  - maxReportNbr  - monDur  - repPeriod |  |
| SupportedFeatures | | 3GPP TS 29.571 [21] | | Used to negotiate the supported optional features of the API. |  |
| TimeWindow | | 3GPP TS 29.122 [3] | | Used to indicate the time window. |  |
| Uinteger | | 3GPP TS 29.571 [21] | | Used to represent integer attributes. |  |
| Uri | | 3GPP TS 29.122 [3] | | Used to indicate the notification URI. |  |
| ValTargetUe | Clause 7.3.1.4.2.3 | | Used to indicate either VAL User ID or VAL UE ID. | |  |

\* \* \* Next Change \* \* \* \*

# A.15 SS\_ADAE\_VALPerformanceAnalytics API

openapi: 3.0.0

info:

title: SS\_ADAE\_VALPerformanceAnalytics

description: |

API for ADAE VAL performance analytics service.

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version: "1.0.0-alpha.1"

externalDocs:

description: >

3GPP TS 29.549 V18.5.0 Service Enabler Architecture Layer for Verticals (SEAL);

Application Programming Interface (API) specification; Stage 3.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/ss-adae-pa/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/application-performance:

post:

description: Creates a new individual VAL performance event subscription.

operationId: CreateIndValPerfEventSubsc

tags:

- VAL performance event subscriptions (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

callbacks:

paNotification:

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

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

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: VAL performance event subscription resource created successfully.

content:

application/json:

schema:

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

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'

/application-performance/{appPerfId}:

get:

description: Retrieves an individual VAL performance event subscription.

operationId: ReadIndValPerfEventSubsc

tags:

- Individual VAL performance event subscription (Document)

parameters:

- name: appPerfId

in: path

description: Identifier of an individual VAL performance event subscription.

required: true

schema:

type: string

responses:

'200':

description: >

The individual VAL performance subscription matching the appPerfId is retrieved.

content:

application/json:

schema:

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

'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:

description: Deletes an individual VAL performance event subscription.

operationId: DeleteIndValPerfEventSubsc

tags:

- Individual VAL performance event subscription (Document)

parameters:

- name: appPerfId

in: path

description: Identifier of an individual VAL performance event subscription.

required: true

schema:

type: string

responses:

'204':

description: >

The individual VAL performance subscription matching the appPerfId is deleted.

'307':

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

'308':

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

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

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

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

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

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

AppPerfSub:

description: Represents an individual VAL performance event subscription resource.

type: object

properties:

notifUri:

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

analyticsType:

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

valServiceId:

type: string

valUeIds:

type: array

items:

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

minItems: 1

description: >

One or more VAL UE IDs whose analytics or data collection are subject to subcription.

valServerId:

type: string

description: Identity of the VAL server

dataProdProfile:

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

confLevel:

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

area:

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

timeValidity:

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

repReq:

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

suppFeat:

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

required:

- notifUri

- analyticsType

- valServiceId

AppPerfNotif:

description: Represents notification of the VAL performance event.

type: object

properties:

output:

type: string

description: Provided output for analytics.

valServerId:

type: string

description: VAL Server identifier.

valUeIds:

type: array

items:

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

minItems: 1

description: List of VAL UE identifiers.

analyticsType:

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

confLevel:

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

timeHorizon:

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

required:

- output

- valServerId

ProdProfileInfo:

description: Represents capability of the data producer.

type: object

properties:

prodId:

type: string

description: Identity of the data producer.

prodType:

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

dataType:

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

prodRole:

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

origProdIds:

type: array

items:

type: string

minItems: 1

description: >

Identifies the identity of the original data producers.

dataFresh:

type: integer

description: Duration of elapsed time in seconds.

producerCap:

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

required:

- prodId

- prodType

- dataType

ProducerCap:

description: Represents capability of the data producer.

type: object

properties:

durationTime:

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

anonymization:

type: boolean

description: >

Set to true if anonymization is supported.

Set to false or omitted otherwise.

dataRate:

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

schedule:

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

AnalyticsType:

description: Represents type of requested analytics.

type: object

properties:

category:

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

mode:

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

mlEnabled:

type: boolean

description: >

Set to true if the provided analytics are ML-enabled.

Set to false if the provided analytics are not ML-enabled.

Omitted if the provided analytics lack onfo for being ML-enabled or not.

# Simple data types and Enumerations

AnalyticsCategory:

anyOf:

- type: string

enum:

- PREDICTIVE

- STATISTICS

- 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: |

Represents the type of the analytics with the values:

- PREDICTIVE: The event for the analytics is for predictive analytics.

- STATISTICS: The event for analytics is for statistics analytics.

AnalyticsMode:

anyOf:

- type: string

enum:

- OFFLINE

- ONLINE

- 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: |

Represents the mode of the analytics with the values:

- OFFLINE: Represents offline analytics.

- ONLINE: Represents online analytics.

ProducerType:

anyOf:

- type: string

enum:

- ADAE\_CLIENT

- A\_DCCF

- VAL\_SERVER

- SEAL\_SERVER

- SEAL\_CLIENT

- EES

- EAS

- 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: |

Represents the type of the data producer with the values:

- ADAE\_CLIENT: The data producer is ADAE client.

- A\_DCCF: The data producer is A-DCCF.

- VAL\_SERVER: The data producer is VAL server.

- SEAL\_SERVER: The data producer is SEAL server.

- SEAL\_CLIENT: The data producer is SEAL client.

- EES: The data producer is EES.

- EAS: The data producer is EAS.

ProducerData:

anyOf:

- type: string

enum:

- PERFORMANCE\_INDICATOR

- REPRODUCER\_USAGE\_DATA

- SERVER\_LOAD\_DATA

- APPLICATION\_PERFORMANCE

- EDGE\_LOAD

- 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: |

Represents the data type of the data producer with the values:

- PERFORMANCE\_INDICATOR: The data type of the data producer is

performance indictor.

- REPRODUCER\_USAGE\_DATA: The data type of the data producer is

reproducer usage data.

- REPRODUCER\_USAGE\_DATA: The data type of the data producer is

reproducer usage data.

- SERVER\_LOAD\_DATA: The data type of the data producer is

server load data.

- APPLICATION\_PERFORMANCE: The data type of the data producer is

application performance.

- EDGE\_LOAD: The data type of the data producer is

edge load.

ProducerRole:

anyOf:

- type: string

enum:

- GENERATING\_ENTITY

- ORIGINAL\_PRODUCER

- RESPOSITORY

- 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: |

Represents the role of the data producer with the values:

- GENERATING\_ENTITY: The role of the data producer is generating entity.

- ORIGINAL\_PRODUCER: The role of the data producer is origina producer.

- RESPOSITORY: The role of the data producer is repository.

\* \* \* Next Change \* \* \* \*

# A.17 SS\_ADAE\_Ue2UePerformanceAnalytics API

openapi: 3.0.0

info:

title: SS\_ADAE\_Ue2UePerformanceAnalytics

description: |

API for SEAL VAL Service Area Configuration Service.

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version: "1.0.0-alpha.1"

externalDocs:

description: >

3GPP TS 29.549 V18.5.0 Service Enabler Architecture Layer for Verticals (SEAL);

Application Programming Interface (API) specification; Stage 3.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/ss-adae-uupa/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/ue2ue-session-performance:

post:

summary: Create an individual UE-to-UE session performance analytics event subscription.

operationId: SubscribeUe2UePerfAnalytics

tags:

- UE-to-UE Performance Subscriptions (Collection)

requestBody:

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/U2UPerfSub'

responses:

'201':

description: >

Subscription to the UE-to-UE session performance analytics is created.

content:

application/json:

schema:

$ref: '#/components/schemas/U2UPerfSub'

headers:

Location:

description: Contains the URI of the newly created individual 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:

NotifyU2USessionEvent:

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

post:

summary: Notify the UE-to-UE session performance analytics.

requestBody:

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/U2UPerfNotif'

responses:

'204':

description: The notification is successfully received.

'307':

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

'308':

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

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

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

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

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

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

/ue2ue-session-performance/{u2uPerfId}:

get:

summary: Read the individual UE-to-UE session performance analytics event subscription.

operationId: ReadU2UPerfSubscription

tags:

- Individual UE-to-UE Performance Subscription (Document)

parameters:

- name: u2uPerfId

in: path

description: >

Represents the identifier of an individual UE-to-UE session performance

analytics subscription.

required: true

schema:

type: string

responses:

'200':

description: >

The requested individual UE-to-UE session performance event subscription is returned.

content:

application/json:

schema:

$ref: '#/components/schemas/U2UPerfSub'

'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: Remove the individual UE-to-UE session performance analytics event subscription.

operationId: RemoveU2UPerfSubscription

tags:

- Individual UE-to-UE Performance Subscription (Document)

parameters:

- name: u2uPerfId

in: path

description: >

Represents the identifier of an individual UE-to-UE session performance

analytics subscription.

required: true

schema:

type: string

responses:

'204':

description: >

The individual UE-to-UE session performance event subscription matching

the u2uPerfId is deleted.

'307':

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

'308':

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

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

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

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

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

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

U2UPerfSub:

description: >

Represents the UE-to-UE session performance analytics subscription.

type: object

properties:

analyticsType:

$ref: 'TS29549\_SS\_ADAE\_VALPerformanceAnalytics.yaml#/components/schemas/AnalyticsType'

valUeIds:

type: array

description: >

Represent the list of VAL UEs, whose UE-to-UE session analytics are subscribed to.

items:

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

minItems: 1

valServiceId:

description: Represents the VAL service for which the subscription applies.

type: string

confLevel:

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

area:

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

repReq:

$ref: '#/components/schemas/U2UReportingRequirements'

expReqs:

type: array

description: >

Represents the exposure level requirements for the analytics to be exposed.

items:

$ref: '#/components/schemas/U2UThreshold'

minItems: 1

notifUri:

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

timeInterval:

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

suppFeat:

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

required:

- analyticsType

- valUeIds

- notifUri

U2UPerfNotif:

description: >

Represents the threshold for UE-to-UE session performance analytics.

type: object

properties:

analyticsOutput:

type: array

description: >

Represents the exposure level requirements for the analytics to be exposed.

items:

$ref: '#/components/schemas/U2UAnalyticsData'

minItems: 1

analyticsType:

$ref: 'TS29549\_SS\_ADAE\_VALPerformanceAnalytics.yaml#/components/schemas/AnalyticsType'

confLevel:

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

required:

- analyticsOutput

U2UReportingRequirements:

description: >

Represents the UE-to-UE session performance analytics reporting requirements.

type: object

properties:

repMode:

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

reportingPeriod:

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

reportingInds:

type: array

description: >

Indicates the list of the requested analytics.

items:

$ref: '#/components/schemas/U2UAnalytics'

minItems: 1

reportingThrs:

type: array

description: >

Identifies reporting threshold corresponding to the application QoS index(es).

items:

$ref: '#/components/schemas/U2UThreshold'

minItems: 1

reportingGrn:

$ref: '#/components/schemas/U2UReportingGranularity'

required:

- repMode

- reportingInds

- reportingGrn

U2UThreshold:

description: >

Represents the threshold for UE-to-UE session performance analytics.

type: object

properties:

value:

$ref: '#/components/schemas/U2UAnalyticsData'

thrDirect:

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

required:

- value

- thrDirect

U2UAnalyticsData:

description: >

Represents the UE-to-UE analytics data.

type: object

properties:

valUes:

$ref: '#/components/schemas/U2UPair'

avgLatency:

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

avgPer:

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

avgDataRate:

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

jitter:

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

U2UPair:

description: >

Represents the UE-to-UE pair.

type: object

properties:

valUeA:

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

valUeB:

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

# Simple data types and Enumerations

U2UAnalytics:

anyOf:

- type: string

enum:

- AVG\_LATENCY

- AVG\_PER

- AVG\_DATA\_RATE

- JITTER

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration and is not used to encode

content defined in the present version of this API.

description: |

Represents the UE-to-UE analytics types.

Possible values are:

- AVG\_LATENCY: The indication for requesting the average latency analytics.

- AVG\_PER: The indication for requesting the average packet error rate analytics.

- AVG\_DATA\_RATE: The indication for requesting the average data rate analytics.

- JITTER: The indication for requesting the jitter analytics.

U2UReportingGranularity:

anyOf:

- type: string

enum:

- GROUP

- INDIVIDUAL

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration and is not used to encode

content defined in the present version of this API.

description: |

Represents the UE-to-UE reporting granularity.

Possible values are:

- GROUP: The indication for requesting the analytics for all

VAL UE-to-UE application sessions.

- INDIVIDUAL: The indication for requesting the analytics for individual

VAL UE-to-UE application sessions.

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