**3GPP TSG-CT WG3 Meeting #134 *C3-242231\_R2***

**Changsha, China, 15th – 19th April, 2024**

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| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **29.549** | **CR** | **0276** | **rev** | **-** | **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)*.* |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Alignment of the SS\_ADAE\_Ue2UePerformanceAnalytics API |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | ADAES |  | ***Date:*** | 2024-03-20 |
|  |  |  |  |  |
| ***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 canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | CR provies the alignment with the received LS reply **C3-242031**, i.e., remove Analytics type in notifications and the EN related to the reporting requirements is removed because of no change in stage 2 requirements.The provided changes are based on agreed SA6 CR **S6-240559.** |
|  |  |
| ***Summary of change:*** | This CR introduces the alignment of SS\_ADAE\_Ue2UePerformanceAnalytics API with stage 2 requirements. |
|  |  |
| ***Consequences if not approved:*** | The definition of the SS\_ADAE\_Ue2UePerformanceAnalytics API cannot be completed in the stage 3. |
|  |  |
| ***Clauses affected:*** | 7.10.3.4.1, 7.10.3.4.2.2, 7.10.3.4.2.4, 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 addresses received LS reply **C3-242031**.
* This CR provides backward compatible correction of the SS\_ADAE\_Ue2UePerformanceAnalytics API.
 |
| ***()*** |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

\* \* \* First 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. |  |
|  |  |  |  |
| 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 \* \* \* \*

###### 7.10.3.4.2.2 Type: U2UPerfSub

Table 7.10.3.4.2.2-1: Definition of type U2UPerfSub

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| analyticsType | AnalyticsType | M | 1 | Represents the type of the UE-to-UE session performance analytics. Only the "category" attribute within the AnalyticsType data structure is applicable. |  |
| valUeIds | array(ValTargetUe) | M | 1..N | Represent the list of VAL UEs, whose UE-to-UE session analytics are subscribed to. |  |
| valServiceId | string | O | 0..1 | Represents the VAL service for which the subscription applies. |  |
| confLevel | Uinteger | C | 0..1 | Defines the accuracy level for the UE-to-UE session analytics if the UE-to-UE session performance analytics.This attribute shall be provided if the "analyticsType" is set to "ANALYTICS\_PREDICTIVE".Minimum = 0. Maximum = 100. |  |
| area | LocationArea5G | O | 0..1 | Represents the geographical or service area, to which the UE-to-UE session performance analytics subscription is applied. |  |
|  |  |  |  |  |  |
| repReq | ReportingInformation | O | 0..1 | Represents the reporting requirements of the subscription. |  |
| reportingInds | array(U2UAnalytics) | C | 1..N | Indicates the list of the requested analytics.(NOTE 1) |  |
| reportingThrs | array(U2UThreshold) | C | 1..N | Identifies reporting threshold corresponding to the application QoS index(es).(NOTE 2) |  |
| reportingGrn | U2UReportingGranularity | C | 0..1 | Indicates the reporting granularity.(NOTE 1) |  |
| expReqs | array(U2UThreshold) | O | 1..N | Represents the exposure level requirements for the analytics to be exposed. |  |
| notifUri | Uri | M | 1 | Represents the notification URI. |  |
| timeInterval | TimeWindow | O | 0..1 | The time interval as the start time and end time, to which the UE-to-UE session performance analytics subscription is applied. |  |
| suppFeat | SupportedFeatures | C | 0..1 | Used to negotiate the applicability of optional features.This attribute shall be present only if feature negotiation needs to take place. |  |
| NOTE 1: These attributes shall be provided if the "repReq" attribute is present.NOTE 2: These attributes shall be provided if the "notifMethod" attribute within the ReportingInformation data type provided in the "repReq" attribute is set to "ON\_EVENT\_DETECTION". |

\* \* \* Next change \* \* \* \*

###### 7.10.3.4.2.4 Void

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

 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'

 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

 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 \* \* \* \*