**3GPP TSG-CT WG3 Meeting #134 *C3-24X2459***

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.549** | **CR** | **0262** | **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** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Add reporting requirements to SliceAppPerfSub | | | | | | | | | |
|  |  | | | | | | | | | |
| ***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#0021 against TS 23.436 in document S6-240558 adds "Reporting requirements " information element to Slice-specific performance analytics subscription request in clause 8.3.3.2 of TS 23.436. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding repReq attribute to SliceAppPerfSub. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Stage 3 is not in accordance to stage 2. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.10.2.4.1, 7.10.2.4.2.2, A.16 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 file of the SS\_ADAE\_VALPerformanceAnalytics API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

##### 7.10.2.4.1 General

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

Table 7.10.2.4.1-1 specifies the data types defined specifically for the SS\_ADAE\_SlicePerformanceAnalytics API service.

**Table 7.10.2.4.1-1\_SS\_ADAE\_SlicePerformanceAnalytics API specific Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Section defined** | **Description** | **Applicability** |
| SliceAppPerfSub | 7.10.2.4.2.2 | Subscription to the slice-specific application performance analytics |  |
| SliceAppPerfNotif | 7.10.2.4.2.3 | Notification information of the slice specific application performance analytics. |  |

Table 7.10.2.4.1-2 specifies data types re-used by the SS\_ADAE\_SlicePerformanceAnalytics API service:

**Table 7.10.2.4.1-2: Re-used Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Reference** | **Comments** | **Applicability** |
| AnalyticsType | Clause 7.10.1.4.2.6 | Represents the type of analytics. |  |
| Dnn | 3GPP TS 29.571 [21] | Used to Identify a DNN. |  |
| 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 |  |
| Snssai | 3GPP TS 29.571 [21] | Used to Identify the S-NSSAI. |  |
| 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 \* \* \* \*

###### 7.10.2.4.2.2 Type: SliceAppPerfSub

**Table 7.10.2.4.2.2-1: Definition of type SliceAppPerfSub**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 slice-specific application performance analytics. Only the attributes "category" and "mode" are applicable here. |  |
| sliceId | Snssai | M | 1 | The identifier of the slice or slice instance to which the performance analytics subscription is applied. |  |
| dnn | Dnn | O | 0..1 | Associated DNN. |  |
| valUeIds | array(ValTargetUe) | O | 1..N | A list of identities of one or more VAL UEs whose slice-specific 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 slice-specific performance analytics subscription is applied. |  |
| 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 slice specific application performance analytics subscription is applied. |  |
| timeValidity | TimeWindow | O | 0..1 | The time validity of the subscription in seconds. |  |
| timeHorizon | TimeWindow | O | 0..1 | The time horizon for predictive analytics. |  |
| repReq | ReportingInformation | O | 0..1 | Represents the reporting requirement of the slice-specific performance analytics subscription. |  |
| suppFeat | SupportedFeatures | C | 0..1 | Used to negotiate the supported features of the API as defined in clause 7.10.2.6.  This attribute shall be provided in the HTTP POST response of successful subscription creation if it was provided in the request. |  |

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

# A.16 SS\_ADAE\_SlicePerformanceAnalytics API

openapi: 3.0.0

info:

title: SS\_ADAE\_SlicePerformanceAnalytics

description: |

API for ADAE slice-specific application 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-sspa/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/slice-specific-application-performance:

post:

description: >

Creates a new individual slice-specific application performance event subscription.

operationId: SliceAppPerfSubs

tags:

- Slice-specific application performance event subscriptions (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

callbacks:

sspaNotification:

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

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

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: Slice-specific performance event subscription resource created successfully.

content:

application/json:

schema:

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

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'

/slice-specific-application-performance/{ssAppPerfId}:

get:

description: >

Retrieves an individual slice-specific application performance event subscription.

operationId: ReadIndSliceAppPerfEventSubsc

tags:

- Individual slice-specific application performance event subscription (Document)

parameters:

- name: ssAppPerfId

in: path

description: >

Identifier of an individual slice-specific application performance event subscription.

required: true

schema:

type: string

responses:

'200':

description: >

The individual slice-specific application performance

subscription matching the ssAppPerfId is retrieved.

content:

application/json:

schema:

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

'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 slice-specific application performance event subscription.

operationId: DeleteIndSliceAppPerfEventSubsc

tags:

- Individual slice-specific application performance event subscription (Document)

parameters:

- name: ssAppPerfId

in: path

description: >

Identifier of an individual slice-specific application performance event subscription.

required: true

schema:

type: string

responses:

'204':

description: >

The individual slice-specific application performance subscription matching

the ssAppPerfId 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:

SliceAppPerfSub:

description: >

Represents an individual slice-specific application performance event subscription resource.

type: object

properties:

notifUri:

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

analyticsType:

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

sliceId:

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

dnn:

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

valUeIds:

type: array

items:

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

minItems: 1

description: >

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

valServerId:

type: string

description: >

Identity of the VAL server if the consumer is different than the VAL server of interest.

confLevel:

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

area:

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

timeValidity:

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

timeHorizon:

$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:

- analyticsType

- notifUri

- sliceId

SliceAppPerfNotif:

description: Represents notification of the slice-specific application performance event.

type: object

properties:

output:

type: string

description: Output data.

analyticsType:

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

confLevel:

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

timeHorizon:

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

required:

- output

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