**3GPP TSG-CT WG3 Meeting #125 *C3-225456***

**Toulouse, France, 14th - 18th, November, 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.558** | **CR** | 0045 | **rev** | **-** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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:*** | Add the missing description fields of some attributes in the OpenAPI file | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NBI18 | | | | |  | ***Date:*** | | | 2022-10-28 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Based on clause 5.3.9 of TS 29.501, it states for "string" and "boolean" data types:  *1. if the data type is "<type>":*  *a. if the data type of the attribute is "string", "number", "integer", or "boolean";*  *i) a type definition using that data type as value ("type: <data type>"); and*  *ii) optionally "description: <description>", where <description> is the description of the attribute in the table defining the structured data type; or*  *b. otherwise a reference to the data type schema for the data type <data type> of the attribute, i.e. "$ref: '#/components/schemas/<data type>'" if that data type schema is contained in the same OpenAPI specification file and "$ref: '<filename>#/components/schemas/<data type>'" if that data type schema is contained in file <filename> in the same directory on the same server;*  however, the description field indicated by the above highlighted is still missing for the "string" and "boolean" data types in some OpenAPI files. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the description field for the "string" and "boolean" data types in some OpenAPI files. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Not align with the schema princinple for "string" and "boolean" data types. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.8.6.2.5, A.3, A.4, A.6, A.7, A.9 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 backwards compatible corrections to the OpenAPI file for Eees\_UELocation API, Eees\_UEIdentifier API, Eees\_SessionWithQoS API, Eees\_ACRManagementEvent API and Eees\_EELManagedACR API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

##### 8.8.6.2.5 Type: ACTStatusNotif

Table 8.8.6.2.3-1: Definition of type ACTStatusNotif

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| subscriptionId | string | M | 1 | Subscription identifier. |  |
| actStatus | ACTResult | M | 0..1 | Contains the reported ACT status. |  |

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

# A.3 Eees\_UELocation API

openapi: 3.0.0

info:

title: EES UE Location Information\_API

description: |

API for EES UE Location Information.

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version: 1.0.0

externalDocs:

description: >

3GPP TS 29.558 V17.0.0 Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/eees-uelocation/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 7.5 of 3GPP TS 29.558.

paths:

/fetch:

post:

summary: Fetch an UE location information.

operationId: FetchUELocation

tags:

- Fetch an UE location information

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (The requested location information)

content:

application/json:

schema:

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

'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'

/subscriptions:

post:

description: >

Create a Subscription resource for continious reporting of UE location

information to the EAS.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: >

Created (The individual location information subscription resource

is created successfully)

content:

application/json:

schema:

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

headers:

Location:

description: 'Contains the URI of the newly created resource'

required: true

schema:

type: string

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

callbacks:

LocationInformationNotification:

'{request.body#/notificationDestination}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

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'

UserConsentRevocationNotif:

'{request.body#/revocationNotifUri}':

post:

requestBody:

required: true

content:

application/json:

schema:

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

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'

/subscriptions/{subscriptionId}:

get:

description: Retrieve an Individual location information subscription information.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

responses:

'200':

description: OK (Successfully get the location information subscription).

content:

application/json:

schema:

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

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

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

'500':

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

'503':

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

default:

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

put:

description: Fully replace an existing Individual location information Subscription.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (The individual location information subscription was modified successfully).

content:

application/json:

schema:

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

'204':

description: No Content.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

patch:

description: Partially update an existing Individual location information Subscription.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

requestBody:

description: Partial update an existing Individual AC information Subscription.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

OK (The Individual location information Subscription is successfully

modified and the updated subscription information is returned in the response).

content:

application/json:

schema:

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

'204':

description: >

No Content (The individual location information subscription was modified successfully).

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

delete:

description: Delete an existing Individual location information Subscription.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

responses:

'204':

description: The individual subscription 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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

LocationSubscription:

type: object

description: Represents an Individual Location Information Subscription.

properties:

easId:

type: string

description: Identifier of the EAS subscribing for location information report.

ueId:

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

intGrpId:

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

extGrpId:

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

expTime:

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

locGran:

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

locQos:

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

eventReq:

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

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by the EAS to request the EES to send a test notification.

Set to false or omitted otherwise.

revocationNotifUri:

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

websockNotifConfig:

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

suppFeat:

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

oneOf:

- required: [ueId]

- required: [intGrpId]

- required: [extGrpId]

required:

- easId

LocationSubscriptionPatch:

type: object

description: Represents the partial update of Individual AC Information Subscription.

properties:

eventReq:

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

expTime:

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

notificationDestination:

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

revocationNotifUri:

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

locGran:

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

locQos:

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

LocationNotification:

type: object

description: Represents the filters information for AC Information Subscription.

properties:

subId:

type: string

description: >

Identifier of the location information subscription for which the

location information notification is related to.

locEvs:

type: array

items:

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

minItems: 1

description: List of notifications with location information.

required:

- subId

- locEvs

LocationEvent:

type: object

description: Location Information event notification.

properties:

ueId:

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

locInf:

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

locInfPred:

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

oneOf:

- required: [locInf]

- required: [locInPred]

required:

- ueId

LocationRequest:

type: object

description: To request location information request.

properties:

ueId:

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

gran:

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

locQos:

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

suppFeat:

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

required:

- ueId

LocationResponse:

type: object

description: Contains the response location information request.

properties:

ueLocation:

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

suppFeat:

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

required:

- ueLocation

ConsentRevocNotif:

description: >

Represents the user consent revocation information conveyed in a user consent

revocation notification.

type: object

properties:

subscriptionId:

type: string

description: >

Contains the identifier of the subscription to which the notification is related.

consentsRevoked:

type: array

items:

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

minItems: 1

required:

- subscriptionId

- consentsRevoked

ConsentRevoked:

description: Represents the information related to a revoked user consent.

type: object

properties:

ucPurpose:

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

externalId:

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

ueId:

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

required:

- ucPurpose

oneOf:

- required: [externalId]

- required: [ueId]

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

# A.4 Eees\_UEIdentifier API

openapi: 3.0.0

info:

title: EES UE Identifier Service

version: 1.0.0

description: |

EES UE Identifier Service.

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externalDocs:

description: >

3GPP TS 29.558 V17.0.0; Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3.

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/eees-ueidentifier/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/fetch:

post:

summary: Fetch the identifier of an UE.

operationId: FetchUEId

tags:

- Fetch UE Identifier

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

The communicated ACR update information was successfully received.

The response body contains the feedback of the EES.

content:

application/json:

schema:

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

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

UserInformation:

description: >

Represents information about the User or the UE, that used by EES to use 3GPP CN capability

to retrieve the EAS specific UE identifier.

type: object

properties:

easId:

type: string

description: >

The application identifier of the EAS, e.g. URI, FQDN, requesting the UE Identifier

information.

easProviderId:

type: string

description: Identifier of the ASP that provides the EAS.

ipAddr:

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

suppFeat:

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

required:

- easId

- ipAddr

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

# A.6 Eees\_SessionWithQoS API

openapi: 3.0.0

info:

title: EES Session with QoS API

description: |

API for EES Session with Qos service.

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version: 1.0.0

externalDocs:

description: >

3GPP TS 29.558 V17.0.0 Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/eees-session-with-qos/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 7.5 of 3GPP TS 29.558.

paths:

/sessions:

post:

description: Create a new individual Session with QoS resource.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

headers:

Location:

description: 'Contains the URI of the newly created resource'

required: true

schema:

type: string

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

callbacks:

notificationDestination:

'{request.body#/notificationDestination}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

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'

get:

description: Retrieve all the Session With QoS information.

parameters:

- name: eas-id

in: query

description: Identifier of the EAS which querying the status of subscriptions.

required: true

schema:

type: string

responses:

'200':

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

content:

application/json:

schema:

type: array

items:

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

minItems: 1

description: >

All the subscription information related to the request URI is returned

'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'

/sessions/{sessionId}:

put:

description: >

Fully replace an existing Individual Session with QoS resource identified by a sessionId.

parameters:

- name: sessionId

in: path

description: Session Id.

required: true

schema:

type: string

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

The individual Session with QoS is successfully modified and the updated

session with QoS context information is returned in the response.

content:

application/json:

schema:

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

'204':

description: No Content

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

patch:

parameters:

- name: sessionId

in: path

description: session Id.

required: true

schema:

type: string

requestBody:

description: >

Partial update an existing Individual Session with QoS resource identified by a sessionId.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

The individual Session with QoS is successfully modified and the updated

session with QoS context information is returned in the response.

content:

application/json:

schema:

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

'204':

description: No Content.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

delete:

description: Remove an Individual Session with QoS resource identified by a sessionId.

parameters:

- name: sessionId

in: path

description: session Id.

required: true

schema:

type: string

responses:

'204':

description: >

The individual Session with QoS resource matching the sessionId is successfully 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'

get:

description: Read a subscription resource for a sessionId.

parameters:

- name: sessionId

in: path

description: Session Id.

required: true

schema:

type: string

responses:

'200':

description: The subscription information related to the request URI is returned.

content:

application/json:

schema:

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

'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'

# Components

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

SessionWithQoS:

type: object

description: Represents an Individual Session with QoS Subscription.

properties:

self:

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

easId:

type: string

description: Identifier of an EAS.

ueIpv4Addr:

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

ueIpv6Addr:

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

ipDomain:

type: string

ueId:

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

intGrpId:

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

extGrpId:

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

ipFlows:

type: array

items:

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

minItems: 1

description: Contains the flow description for the Uplink and/or Downlink IP flows.

qosReference:

type: string

description: Identifies a pre-defined QoS information.

altQosReference:

type: array

items:

type: string

description: >

Identifies an ordered list of pre-defined QoS information.

The lower the index of the array for a given entry, the higher the priority.

events:

type: array

items:

$ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/UserPlaneEvent'

description: Indicates the events subscribed by the EAS.

sponsorInformation:

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

qosMonInfo:

$ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/QosMonitoringInformation'

notificationDestination:

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

dnn:

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

snssai:

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

maxbrUl:

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

maxbrDl:

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

disUeNotif:

type: boolean

description: >

Indicates to disable QoS flow parameters signalling to the UE when the SMF is notified

by the NG-RAN of changes in the fulfilled QoS situation when it is included and set to

"true". The fulfilled situation is either the QoS profile or an Alternative QoS Profile.

The default value "false" shall apply, if the attribute is not present and has not been

supplied previously.

requestTestNotification:

type: boolean

description: >

Set to true by Subscriber to request the EES to send a test notification

as defined in 3GPP TS 29.122 [6]. Set to false or omitted otherwise.

websockNotifConfig:

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

suppFeat:

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

required:

- easId

- ipFlows

SessionWithQoSPatch:

type: object

description: Represents a modification request of Individual Session with QoS Subscription.

properties:

ipFlows:

type: array

items:

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

minItems: 1

description: Contains the flow description for the Uplink and/or Downlink IP flows.

qosReference:

type: string

description: Identifies a pre-defined QoS information.

altQosReference:

type: array

items:

type: string

description: >

Identifies an ordered list of pre-defined QoS information.

The lower the index of the array for a given entry, the higher the priority.

events:

type: array

items:

$ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/UserPlaneEvent'

description: Indicates the events subscribed by the EAS.

sponsorInformation:

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

qosMonInfo:

$ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/QosMonitoringInformationRm'

notificationDestination:

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

maxbrUl:

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

maxbrDl:

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

disUeNotif:

type: boolean

UserPlaneEventNotification:

type: object

description: Represents the user plane event notification.

properties:

sessionId:

type: string

description: >

String identifying the individual data session information for which

the QoS event notification is delivered.

eventReports:

type: array

items:

$ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/UserPlaneEventReport'

minItems: 1

description: >

Contains the flow description for the Uplink and/or Downlink IP flows.

required:

- sessionId

- eventReports

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

# A.7 Eees\_ACRManagementEvent API

openapi: 3.0.0

info:

title: EES ACR Management Event\_API

description: |

API for EES ACR Management Event.

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version: 1.0.1

externalDocs:

description: >

3GPP TS 29.558 V17.1.0 Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/eees-acrmgntevent/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 7.5 of 3GPP TS 29.558.

paths:

/subscriptions:

post:

description: Create an Individual ACR Management Event Subscription resource.

requestBody:

required: true

content:

application/json:

schema:

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

callbacks:

ACRManagementEventsNotification:

'{request.body#/notificationDestination}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

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'

UPPathChangeAvailabilityNotif:

'{request.body#/notificationDestination}/report-availability':

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content. The notification is successful 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'

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

headers:

Location:

description: 'Contains the URI of the newly created resource'

required: true

schema:

type: string

'204':

description: >

Successful case. The resource has been successfully created and no

additional content is to be sent in the response message.

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

get:

description: Retrieve all the ACR Management Events Subscriptions information.

parameters:

- name: supp-feat

in: query

description: Features supported by the EAS.

required: false

schema:

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

responses:

'200':

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

content:

application/json:

schema:

type: array

items:

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

minItems: 1

description: All the active ACR management events subscriptions

'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'

/subscriptions/{subscriptionId}:

get:

description: Retrieve an Individual ACR Management Events Subscription.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

- name: supp-feat

in: query

description: Features supported by the EAS.

required: false

schema:

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

responses:

'200':

description: OK (Successful get the active subscription).

content:

application/json:

schema:

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

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

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

'500':

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

'503':

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

default:

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

put:

description: Fully replace an existing Individual ACR Management Events Subscription.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful get the active subscription).

content:

application/json:

schema:

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

'204':

description: No Content

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

patch:

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

requestBody:

description: Partial update an existing Individual ACR Management Events Subscription.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

The Individual ACR Management Events Subscription is successfully modified

and the updated subscription information is returned in the response.

content:

application/json:

schema:

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

'204':

description: No Content.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

delete:

description: Delete an existing Individual ACR Management Events Subscription.

parameters:

- name: subscriptionId

in: path

description: Subscription Id.

required: true

schema:

type: string

responses:

'204':

description: The individual subscription 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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

AcrMgntEventsSubscription:

type: object

description: Represents an Individual ACR Management Events Subscription.

properties:

self:

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

easId:

type: string

description: Identifier of an EAS.

eventSubscs:

type: array

items:

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

minItems: 1

description: The subscribed ACR management events.

evtReq:

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

notificationDestination:

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

eventReports:

type: array

items:

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

minItems: 1

description: The ACR management event report(s).

availabilityInfo:

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

failEventReports:

type: array

items:

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

minItems: 1

description: Failure event reports.

requestTestNotification:

type: boolean

description: >

Set to true by the EAS to request the EES to send a test notification.

Set to false or omitted otherwise.

websockNotifConfig:

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

suppFeat:

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

required:

- easId

- eventSubscs

- notificationDestination

AcrMgntEventSubsc:

type: object

description: Represents an ACR Management Event Subscription.

properties:

event:

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

eventFilter:

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

evtReq:

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

tgtUeId:

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

dnaiChgType:

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

easAckInd:

type: boolean

description: >

Identifies whether EAS acknowledgement of UP path change event notifications is to be

expected. Set to "true" if the EAS acknowledgement is expected. Default value is

"false". This attribute may be provided only if the "event" attribute is set to

"UP\_PATH\_CHG".

easChars:

type: array

items:

$ref: 'TS24558\_Eees\_EASDiscovery.yaml#/components/schemas/EasCharacteristics'

minItems: 1

description: A list of EAS characteristics.

required:

- event

AcrMgntEventsSubscriptionPatch:

type: object

description: >

Represents a modification request of Individual ACR Management Events Subscription.

properties:

eventSubscs:

type: array

items:

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

minItems: 1

description: The subscribed ACR management events.

evtReq:

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

notificationDestination:

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

AcrMgntEventsNotification:

type: object

description: Represents the ACR management events notification.

properties:

subpId:

type: string

description: >

String identifying the Individual ACR Management Events Subscription

for which the notification is delivered.

eventReports:

type: array

items:

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

minItems: 1

description: A list of ACR management event reports.

required:

- subpId

- eventReports

AcrMgntEventReport:

type: object

description: Represents an ACR management event report.

properties:

event:

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

timeStamp:

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

upPathChgInfo:

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

easEndPoint:

$ref: 'TS29558\_Eees\_EASRegistration.yaml#/components/schemas/EndPoint'

actStatus:

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

required:

- event

FailureAcrMgntEventInfo:

type: object

description: Represents a failure ACR management event.

properties:

event:

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

failureCode:

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

required:

- event

- failureCode

TargetUeIdentification:

description: Identifies the target UE information.

type: object

properties:

gpsi:

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

intGrpId:

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

extGrpId:

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

ueIpAddr:

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

oneOf:

- required: [gpsi]

- required: [intGrpId]

- required: [extGrpId]

- required: [ueIpAddr]

AvailabilityNotif:

type: object

description: >

Represents the availability information of user plane path management events monitoring

via the 3GPP 5GC network.

properties:

availabilityStatus:

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

required:

- availabilityStatus

UpPathChangeInfo:

description: Represents user plane path change information.

type: object

properties:

ueId:

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

dnaiChgType:

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

sourceTrafficRoute:

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

targetTrafficRoute:

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

sourceDnai:

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

targetDnai:

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

srcUeIpv4Addr:

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

srcUeIpv6Prefix:

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

tgtUeIpv4Addr:

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

tgtUeIpv6Prefix:

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

required:

- ueId

- dnaiChgType

IndUeIdentification:

description: Represents identification information of a UE.

type: object

properties:

gpsi:

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

externalId:

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

ueIpAddr:

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

oneOf:

- required: [gpsi]

- required: [externalId]

- required: [ueIpAddr]

AcrMgntEvent:

anyOf:

- type: string

enum:

- UP\_PATH\_CHG

- ACR\_MONITORING

- ACR\_FACILITATION

- ACT\_START\_STOP

- type: string

description: >

This string represents the ACR management.

description: |

Possible values are:

- UP\_PATH\_CHG: User plane path change event.

- ACR\_MONITORING: ACR monitoring event.

- ACR\_FACILITATION: ACR facilitation event.

- ACT\_START\_STOP: ACT start/stop event.

AcrMgntEventFilter:

anyOf:

- type: string

enum:

- INTRA\_EDN\_MOBILITY

- INTER\_EDN\_MOBILITY

- type: string

description: >

This string represents the ACR Management Event filter.

description: |

Possible values are:

- INTRA\_EDN\_MOBILITY: Indicates that the ACR Management Event filter is intra-EDN mobility.

- INTER\_EDN\_MOBILITY: Indicates that the ACR Management Event filter is inter-EDN mobility.

ActStatus:

anyOf:

- type: string

enum:

- ACT\_START

- ACT\_STOP

- type: string

description: >

This string represents the ACT status, i.e. ACT start or stop.

description: |

Possible values are:

- ACT\_START: Indicates ACT start.

- ACT\_STOP: Indicates ACT stop.

AcrMgntEventFailureCode:

anyOf:

- type: string

enum:

- 3GPP\_UP\_PATH\_CHANGE\_MON\_NOT\_AVAILABLE

- OTHER\_REASONS

- type: string

description: >

This string represents the reason for ACR Management subscription failure for an event.

description: |

Possible values are:

- 3GPP\_UP\_PATH\_CHANGE\_MON\_NOT\_AVAILABLE: Indicates that the ACR Management Event Subscription failed because user plane path management event notifications from the 3GPP network is NOT available. This value is only applicable for the "UP\_PATH\_CHG", "ACR\_MONITORING" and "ACR\_FACILITATION" events.

- OTHER\_REASONS: Indicates that the ACR Management Event Subscription failed for other reasons. This value is applicable for all events.

AvailabilityStatus:

anyOf:

- type: string

enum:

- AVAILABLE

- NOT\_AVAILABLE

- type: string

description: >

This string represents the availability status.

description: |

Possible values are:

- AVAILABLE: Indicates availability.

- NOT\_AVAILABLE: Indicates unavailability.

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

# A.9 Eees\_EELManagedACR API

openapi: 3.0.0

info:

title: EES EEL Managed ACR Service

version: 1.0.1

description: |

EES EEL Managed ACR Service.

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externalDocs:

description: >

3GPP TS 29.558 V17.1.0; Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3.

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/eees-eel-acr/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/request-eelacr:

post:

summary: Request the EES (e.g. S-EES) to handle all the operations of an ACR.

operationId: RequestEELManagedACR

tags:

- Request EEL Managed ACR

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

The requested EEL Managed ACR initiation was successfully received and

processed. The response body contains the feedback of the EES.

content:

application/json:

schema:

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

'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'

/subscriptions:

get:

summary: Retrieve all the active ACT Status Subscriptions managed by the EES.

operationId: GetACTStatusSubscriptions

tags:

- ACT Status Subscriptions (Collection)

responses:

'200':

description: >

OK. All the active ACT status subscriptions managed by the EES shall

be returned.

content:

application/json:

schema:

type: array

items:

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

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

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

'500':

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

'503':

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

default:

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

post:

summary: Request the creation of a subscription to ACT status reporting.

operationId: CreateACTStatusSubsc

tags:

- ACT Status Subscriptions (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK. The subscription is successfully created and a representation of the

created Individual ACT Status Subscription resource shall be returned.

content:

application/json:

schema:

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

headers:

Location:

description: >

Contains the URI of the created Individual ACT Status Subscription 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:

ACTStatusNotification:

'{$request.body#/notificationUri}/act-status':

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: >

No Content. The ACT status notification is successfully received

and acknowledged.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

/subscriptions/{subscriptionId}:

get:

summary: Retrieve an ACT status subscription resource.

operationId: GetACTStatusSubscription

tags:

- Individual ACT Status Subscription (Document)

parameters:

- name: subscriptionId

in: path

description: Individual ACT Status Subscription identifier.

required: true

schema:

type: string

responses:

'200':

description: >

OK. The requested real-time UAV status subscription resource is returned.

content:

application/json:

schema:

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

'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'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

EELACRReq:

description: >

Represents the parameters to request the EES (e.g. S-EES) to handle all the

operations of an ACR.

type: object

properties:

ueId:

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

easCharacs:

type: array

items:

$ref: 'TS24558\_Eees\_EASDiscovery.yaml#/components/schemas/EasCharacteristics'

minItems: 1

appCtxtStoreAddr:

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

suppFeat:

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

required:

- ueId

- easCharacs

EELACRResp:

description: Represents the feedback of the EES on EEL Managed ACR request.

type: object

properties:

appCtxtStoreAddr:

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

suppFeat:

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

ACTStatusSubsc:

description: >

Represents the parameters to request the creation of a subscription to ACT

status reporting.

type: object

properties:

easId:

type: string

description: Contains the application identifier of the EAS, e.g. URI, FQDN.

notificationUri:

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

suppFeat:

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

required:

- easId

- notificationUri

ACTStatusNotif:

description: Represents an ACT status notification.

type: object

properties:

subscriptionId:

type: string

description: Subscription identifier.

actStatus:

$ref: 'TS29558\_Eees\_ACRStatusUpdate.yaml#/components/schemas/ACTResult'

required:

- subscriptionId

- actStatus

# ENUMS:

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