**3GPP TSG-CT WG3 Meeting #140 *C3-251400***

**Wuhan, CN, 7 - 11 April 2025**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** | EAS profile update to support metaverse services requiring multiple devices | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | | 31-03-2025 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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:*** | | As per stage-2 agreement (S6-250419), the EAS profile is updated to support metaverse services requiring multiple devices. This CR proposes to update the EAS profile data model accordingly. The list of associated devices are represented as an array of new data type. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | EAS profile update, addition of new feature and the corressponding Open API (yaml file) update. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Support for metaverse serfices requiring multiple devices is not supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.1.5.1, 8.1.5.2.3, (new) 8.1.5.2.11, 8.1.7, A.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | The CR introduces backward compatible feature to the following APIs:  TS29558\_Eees\_EASRegistration.yaml  TS24558\_Eees\_ACREvents.yaml  TS24558\_Eees\_EASDiscovery.yaml  TS24558\_Eees\_EASInformationProvisioning.yaml  TS24558\_Eees\_EECRegistration.yaml | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

#### 8.1.5.1 General

This clause specifies the application data model supported by the API. Data types listed in clause 7.2 apply to this API

Table 8.1.5.1-1 specifies the data types defined specifically for the Eees\_EASRegistration API service.

Table 8.1.5.1-1: Eees\_EASRegistration API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| Affinity | 8.1.5.3.7 | Represents the affinity requirements of an EAS bundle. | EdgeApp\_2 |
| AssociatedDevice | 8.1.5.2.11 | Represents the associated device along with the UE. | Metaverse\_App\_Support |
| BdlType | 8.1.5.3.6 | Represents the EAS bundle type. | EdgeApp\_2 |
| CoordinatedAcrReqs | 8.1.5.2.10 | Represents the coordinated ACR related requirements for an EAS bundle. | EdgeApp\_2 |
| EASBdlReqs | 8.1.5.2.9 | Represents EAS bundle requirements. | EdgeApp\_2 |
| EASBundleInfo | 8.1.5.2.8 | Represents EAS bundle information. | EdgeApp\_2 |
| EASCategory | 8.1.5.3.4 | Used to indicate the category or type of the EAS. |  |
| EASProfile | 8.1.5.2.3 | The profile information related to the EAS in the EASRegistration data type. |  |
| EASRegistration | 8.1.5.2.2 | The EAS registration information on EES. |  |
| EASRegistrationPatch | 8.1.5.2.6 | To partially update the EAS Registration information. |  |
| EASServiceKPI | 8.1.5.2.4 | Service characteristics provided by EAS, captured in EAS profile information. |  |
| EASStatus | 8.1.5.3.9 | Contains the EAS status. | EdgeApp\_3 |
| EndPoint | 8.1.5.2.5 | The end point information of the Edge Application Server in the EAS profile. |  |
| FailureAction | 8.1.5.3.8 | Represents the EAS bundle related failure action during ACR. | EdgeApp\_2 |
| PermissionLevel | 8.1.5.3.3 | Used to indicate the level of service permissions supported by the EAS. |  |
| TransContSuppDetails | 8.1.5.2.7 | Represents the detailed information about the EAS (e.g. SEALDD Server) capability for seamless transport layer service contnuity. | SEALDDSupport |
| TransportProtocol | 8.1.5.3.5 | Indicates the supported transport layer protocol for EAS context transfer. | SEALDDSupport |

Table 8.1.5.1-2 specifies data types re-used by the Eees\_EASRegistration API service.

Table 8.1.5.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| SupportedFeatures | 3GPP TS 29.571 [8] | Used to negotiate the applicability of optional features defined in table 8.1.7-1. |  |
| DateTime | 3GPP TS 29.122 [6] | Used to capture the expiration time of EAS registration. |  |
| DateTimeRm | 3GPP TS 29.571 [8] | Used to capture the expiration time EAS registration patch. |  |
| ScheduledCommunicationTime | 3GPP TS 29.122 [6] | Used to define the schedule of EAS availability. |  |
| RouteToLocation | 3GPP TS 29.571 [8] | Used to define the DNAIs associated with EAS and the corresponding N6 routing information for each EAS DNAI. |  |
| DurationSec | 3GPP TS 29.122 [6] | Duration in seconds, used to define the availability reporting period for EES to check EAS availability. |  |
| BitRate | 3GPP TS 29.571 [8] | Used to express the connection bandwidth of EAS service KPI. |  |
| Ipv4Addr | 3GPP TS 29.122 [6] | Identifying the IPv4 address of the Edge Application Server. |  |
| Ipv6Addr | 3GPP TS 29.122 [6] | Identifying the IPv6 address of the Edge Application Server. |  |
| PlmnIdNid | 3GPP TS 29.571 [8] | Represents the network identifier. | EdgeApp\_2 |
| ServiceArea | Clause 9.1.5.2.5 | Represents the topological and geographical service area information of the EAS. |  |
| Uinteger | 3GPP TS 29.571 [8] | Used to express the maximum response time of EAS service KPI. |  |
| Fqdn | 3GPP TS 29.571 [8] | Used to express the Fully Qualified Domain Name of EAS end point. |  |

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

##### 8.1.5.2.3 Type: EASProfile

Table 8.1.5.2.3-1: Definition of type EASProfile

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| easId | string | M | 1 | The application identifier of the EAS (e.g. URI, FQDN). |  |
| endPt | EndPoint | M | 1 | Endpoint information (URI, FQDN, IP address) used to communicate with the EAS. This information maybe discovered by EEC and exposed to ACs so that ACs can establish contact with the EAS. |  |
| allowedPlmnId | PlmnIdNid | O | 0..1 | Contains the allowed PLMN ID from which the subscriber can consume the services of the EAS.  (NOTE 4, NOTE 5) | EdgeApp\_2 |
| allowedPlmnIds | array(PlmnIdNid) | O | 1..N | Contains the allowed PLMN ID(s) from which the subscriber can consume the services of the EAS.  (NOTE 5) | EdgeApp\_3 |
| easBdlInfos | array(EASBundleInfo) | O | 1..N | Represents the list of EAS bundle(s) to which the EAS (identified by the "easId" attribute) belongs, and for each one of them, the corresponding EAS bundle information.  (NOTE 3) | EdgeApp\_2 |
| acIds | array(string) | O | 1..N | Identities of the Application Clients that can be served by the EAS |  |
| provId | string | O | 0..1 | Identifier of the ASP that provides the EAS. |  |
| type | EASCategory | O | 0..1 | The EAS type with the 3GPP standardized value set.  (NOTE 1). |  |
| flexEasType | string | O | 0..1 | The EAS type with the flexible value set.  (NOTE 1) |  |
| scheds | array(ScheduledCommunicationTime) | O | 1..N | The availability schedule of the EAS. |  |
| svcArea | ServiceArea | O | 0..1 | The list of geographical and topological areas that the EAS serves. ACs in the UE that are outside the area shall not be served. |  |
| svcKpi | EASServiceKPI | O | 0..1 | Service characteristics provided by the EAS. |  |
| permLvl | array(PermissionLevel) | O | 1..N | Level of service permissions supported by the EAS. |  |
| easFeats | array(string) | O | 1..N | Service specific features supported by the EAS (e.g. single vs multi-player gaming service). |  |
| svcContSupp | array(ACRScenario) | O | 1..N | The ACR scenarios supported by the EAS for service continuity. If this attribute is not present, then the EAS does not support service continuity. |  |
| svcContSuppExt1 | array(EASBundleInfo) | O | 1..N | Represents the information related to the EAS ability to handle bundled EAS coordinated ACRs.  This attribute may be present only when the "svcContSupp" attribute is also present.  When this attribute is present, it indicates that the EAS (identified by the "easId" attribute) is able to handle bundled EAS coordinated ACRs and contains the information of the EAS bundle(s) for which the EAS is able to handle bundled EAS coordinated ACRs. | EdgeApp\_2 |
| transContSupp | TransContSuppDetails | O | 0..1 | Represents the detailed information about the EAS (e.g. SEALDD Server) capability for seamless transport layer service continuity.  If this attribute is not present, then the EAS does not support the seamless transport layer service continuity capability. | SEALDDSupport |
| appLocs | array(RouteToLocation) | O | 1..N | List of DNAI(s) and the corresponding N6 traffic routing information/routing profile ID, associated with the EAS.  It is a subset of the DNAI(s) associated with the EDN where the EAS resides. |  |
| avlRep | DurationSec | O | 0..1 | The period indicating to the EES, how often the EES needs to check the EAS's availability after a successful registration. |  |
| status | string | O | 0..1 | EAS status (e.g. Enabled, Disabled, Overload Warning, etc.)  (NOTE 6) |  |
| statusVal | EASStatus | O | 0..1 | Contains the EAS status.  (NOTE 6) | EdgeApp\_3 |
| genCtxDur | DurationSec | O | 0..1 | Contains the general context holding time duration, which indicates the time duration during which the EAS holds the application context in case of an ACR for service continuity planning. | EdgeApp\_2 |
| easSyncSupp | boolean | O | 0..1 | Indicates whether the EAS supports content synchronization between EASs.  - When set to "true", it indicates that content synchronization between EASs is supported by the EAS.  - When set to "false", it indicates that content synchronization between EASs is not supported by the EAS.  - The default value when this attribute is omitted is "false". | EdgeApp\_2 |
| assoDevList | array(AssociatedDevice) | O | 1..N | List of associated devices (e.g. haptic device, joy stick) required along with UE in order to provide the service to the user. | Metaverse\_App |
| NOTE 1: The "flexEasType" attribute and the "type" attribute are mutually exclusive. Either one of them may be provided. The same attribute should be used when this data type is conveyed over the EDGE-1 and EDGE-3 interfaces (i.e. for the Eees\_EASRegistration and the Eees\_EASDiscovery APIs).  NOTE 2: Void.  NOTE 3: Within any instance of the EASBundleInfo data structure used to encode an array element of this attribute, the "easIdsList" attribute may be present only when the "bdlId" attribute is also present and the "bdlType" attribute is set to "PROXY".  NOTE 4: When the "EdgeApp\_3" feature is not supported, the "allowedPlmnId" attribute shall include only the MNO information of the leading ECSP in case of edge node sharing scenario and the "allowedPlmnIds" attribute shall not be present.  NOTE 5: When the "EdgeApp\_3" feature is supported and the "allowedPlmnIds" attribute is present, then the "allowedPlmnId" attribute shall not be present.  NOTE 6: When the "EdgeApp\_3" feature is supported, then either the "statusVal" attribute or the "status" attribute may be present. | | | | | |

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

##### 8.1.5.2.11 Type: AssociatedDevice

Table 8.1.5.2.11-1: Definition of type AssociatedDEvice

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| devInfo | string | C | 0..1 | Includes the information about the associated device.  (NOTE) |  |
| devType | string | C | 0..1 | Includes the type of device (e.g. haptic device, joy stick).  (NOTE) |  |
| NOTE: Atleast one of "devInfo” and "devType" attributes shall be present. | | | | | |

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

### 8.1.7 Feature negotiation

General feature negotiation procedures are defined in clause 7.8. Table 8.1.7-1 lists the supported features for Eees\_EASRegistration API.

Table 8.1.7-1: Supported Features

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
| 1 | SEALDDSupport | This feature indicates the support of the SEALDD functionality related enhancements.  The following functionalities are supported:  - Support the EAS capability for seamless transport layer service continuity within the EAS profile. |
| 2 | EdgeApp\_2 | This feature indicates the support of the first set of enhancements to the Edge Applications functionalities.  The following functionalities are supported:  - Support of the indication of the general context holding time.  - Support of the EAS bundle functionality.  - Support of the indication of the EAS ability to handle bundled EAS ACRs within the EAS profile.  - Support of allowed MNO information in the EAS Profile.  - Support the provisioning of the indication on EAS support for content synchronization. |
| 3 | EdgeApp\_3 | This feature indicates the support of the second set of enhancements to the Edge Applications functionalities.  The following sub-functionalities are supported:  - Support multiple allowed PLMNs for an EAS.  - Support the further EAS status values and a new encoding for it. |
| 4 | Metaverse\_App | This feature indicates the support of Metaverse\_App related functionalities.  The following sub-functionalities are supported:  - Support of associated devices required with along with the UE. |

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

# A.2 Eees\_EASRegistration API

openapi: 3.0.0

info:

title: EES EAS Registration\_API

description: |

API for EAS Registration.

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version: 1.2.0-alpha.2

externalDocs:

description: >

3GPP TS 29.558 V19.2.0 Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3

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

servers:

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

variables:

apiRoot:

default: https://example.com

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

security:

- {}

- oAuth2ClientCredentials: []

paths:

/registrations:

post:

summary: Creates a new Individual EAS Registration resource

operationId: CreateEASRegistration

tags:

- EAS Registrations (Collection)

description: Registers a new EAS at an EES.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: EAS information is registered successfully at EES.

content:

application/json:

schema:

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

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'

/registrations/{registrationId}:

get:

summary: Read an Individual EAS Registration resource

operationId: ReadIndEASRegistration

tags:

- Individual EAS Registration (Document)

description: Retrieve an Individual EAS registration resource.

parameters:

- name: registrationId

in: path

description: Registration Id.

required: true

schema:

type: string

responses:

'200':

description: OK (The EAS registration information at the EES).

content:

application/json:

schema:

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

'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:

summary: Update an Individual EAS Registration resource

operationId: UpdateIndEASRegistration

tags:

- Individual EAS Registration (Document)

description: Fully replace an existing EAS Registration resource.

parameters:

- name: registrationId

in: path

description: EAS registration Id.

required: true

schema:

type: string

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (The EAS registration information is updated successfully).

content:

application/json:

schema:

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

'204':

description: >

No Content. The individual EAS registration information is updated 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'

patch:

summary: Modify an Individual EAS Registration resource

operationId: ModifyIndEASRegistration

tags:

- Individual EAS Registration (Document)

description: Partially update an existing EAS Registration resource.

parameters:

- name: registrationId

in: path

description: EAS registration Id.

required: true

schema:

type: string

requestBody:

description: Partial update of an existing EAS registration resource.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

The Individual EAS registration is successfully modified and the updated

registration information is returned in the response.

content:

application/json:

schema:

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

'204':

description: >

No Content. The individual EAS registration information is updated 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:

summary: Delete an Individual EAS Registration resource

operationId: DeleteIndEASRegistration

tags:

- Individual EAS Registration (Document)

description: Delete an existing EAS registration at EES.

parameters:

- name: registrationId

in: path

description: EAS registration Id.

required: true

schema:

type: string

responses:

'204':

description: The individual EAS registration 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:

EASRegistration:

type: object

description: Represents an EAS registration information.

properties:

easProf:

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

expTime:

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

suppFeat:

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

required:

- easProf

EASProfile:

type: object

description: Represents the EAS profile information.

properties:

easId:

type: string

description: Identifier of the EAS.

endPt:

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

allowedPlmnId:

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

allowedPlmnIds:

type: array

items:

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

minItems: 1

easBdlInfos:

type: array

items:

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

minItems: 1

acIds:

type: array

items:

type: string

minItems: 1

description: Identities of application clients that are served by the EAS.

provId:

type: string

description: Identifier of the ASP that provides the EAS.

type:

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

flexEasType:

type: string

description: The EAS type with flexible value set.

scheds:

type: array

items:

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

minItems: 1

description: The availability schedule of the EAS.

svcArea:

$ref: 'TS29558\_Eecs\_EESRegistration.yaml#/components/schemas/ServiceArea'

svcKpi:

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

permLvl:

type: array

items:

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

minItems: 1

description: level of service permissions supported by the EAS.

easFeats:

type: array

items:

type: string

minItems: 1

description: Service specific features supported by EAS.

appLocs:

type: array

items:

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

minItems: 1

description: List of DNAI(s) and the N6 traffic information associated with the EAS.

svcContSupp:

type: array

items:

$ref: 'TS29558\_Eecs\_EESRegistration.yaml#/components/schemas/ACRScenario'

minItems: 1

description: The ACR scenarios supported by the EAS for service continuity.

svcContSuppExt1:

type: array

items:

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

minItems: 1

description: >

Represents the information related to the EAS ability to handle bundled EAS coordinated

ACRs.

This attribute may be present only when the "svcContSupp" attribute is also present.

When this attribute is present, it indicates that the EAS (identified by the "easId"

attribute) is able to handle bundled EAS coordinated ACRs and contains the information

of the EAS bundle(s) for which the EAS is able to handle bundled EAS coordinated ACRs.

transContSupp:

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

avlRep:

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

status:

type: string

description: EAS status information.

statusVal:

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

genCtxDur:

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

easSyncSupp:

type: boolean

default: false

description: >

Set to true to indicate that content synchronization between EASs is supported.

Set to false to indicate that content synchronization between EASs is not supported.

The default value when this attribute is omitted is false.

assoDevList:

type: array

items:

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

minItems: 1

description: The list of associated devices required with UE.

required:

- easId

- endPt

allOf:

- not:

required: [ type, flexEasType ]

- not:

required: [ status, statusVal ]

EASRegistrationPatch:

type: object

description: Represents partial update request of individual EAS registration information.

properties:

easProf:

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

expTime:

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

EASServiceKPI:

type: object

description: Represents the EAS service KPI information.

properties:

maxReqRate:

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

maxRespTime:

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

avail:

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

avlComp:

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

avlGraComp:

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

avlMem:

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

avlStrg:

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

connBand:

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

EASBundleInfo:

type: object

description: Represents the EAS bundle information.

properties:

bdlType:

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

bdlId:

type: string

description: Indicates a bundle ID.

easIdsList:

type: array

items:

type: string

minItems: 1

easBdlReqs:

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

mainEasId:

type: string

required:

- bdlType

anyOf:

- required: [bdlId]

- required: [easIdsList]

EASBdlReqs:

type: object

description: Represents the EAS bundle requirements.

properties:

coordinatedEasDisc:

type: boolean

default: false

description: >

Set to true to indicate that coordianted EAS discovery is required.

Set to false to indicate that coordianted EAS discovery is not required.

The default value when this attribute is omitted is false.

coordinatedAcr:

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

affinity:

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

CoordinatedAcrReqs:

type: object

description: Represents the coordinated ACR related requirements for an EAS bundle.

properties:

coordinatedAcrInd:

type: boolean

default: false

description: >

Set to true to indicate that coordianted ACR is required.

Set to false to indicate that coordianted ACR is not required.

The default value when this attribute is omitted is false.

failureAction:

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

required:

- coordinatedAcrInd

EndPoint:

type: object

description: The end point information to reach EAS.

properties:

fqdn:

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

ipv4Addrs:

type: array

items:

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

minItems: 1

description: IPv4 addresses of the edge server.

ipv6Addrs:

type: array

items:

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

minItems: 1

description: IPv6 addresses of the edge server.

uri:

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

oneOf:

- required: [uri]

- required: [fqdn]

- required: [ipv4Addrs]

- required: [ipv6Addrs]

AssociatedDevice:

type: object

description: Represents the associated device information.

properties:

devInfo:

type: string

description: Indicates device information.

devType:

type: string

description: Indicates device type.

anyOf:

- required: [devInfo]

- required: [devType]

PermissionLevel:

anyOf:

- type: string

enum:

- TRIAL

- GOLD

- SILVER

- OTHER

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Indicates the level of service permissions supported by the EAS.

Possible values are:

- TRIAL: Level of service permission supported is TRIAL.

- GOLD: Level of service permission supported is GOLD.

- SILVER: Level of service permission supported is SILVER.

- OTHER: Any other level of service permissions supported.

EASCategory:

anyOf:

- type: string

enum:

- UAS

- V2X

- APP\_ENABLER

- OTHER

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Indicates the category or type of the EAS.

Possible values are:

- UAS: Indicates that the EAS category is for UAS services.

- V2X: Indicates that the EAS category is for V2X services.

- APP\_ENABLER: Indicates that the EAS category is for Application Enabler (e.g., SEAL)

services.

- OTHER: Indicates any other EAS category.

TransContSuppDetails:

type: object

description: >

Represents the detailed information about the EAS (e.g. SEALDD Server) capability for

seamless transport layer service continuity.

properties:

transProtocs:

type: array

items:

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

minItems: 1

description: >

Indicates the transport layer protocols supported for EAS context transfer using

the seamless transport layer service continuity capability.

required:

- transProtocs

TransportProtocol:

anyOf:

- type: string

enum:

- QUIC

- TCP

- TCP\_TLS

- 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: |

Indicates the transport layer protocol.

Possible values are:

- QUIC: Indicates the QUIC protocol.

- TCP: Indicates the Transmission Control (TCP) Protocol.

- TCP\_TLS: Indicates the Transmission Control Protocol (TCP) with Transport Layer Security

(TLS) protocol.

BdlType:

anyOf:

- type: string

enum:

- DIRECT

- PROXY

- 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 EAS Bundle type.

Possible values are:

- DIRECT: Indicates that the EAS Bundle type is direct bundle.

- PROXY: Indicates that the EAS Bundle type is proxy bundle.

Affinity:

anyOf:

- type: string

enum:

- STRONG

- PREFERRED

- WEAK

- 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 affinity requirements of an EAS bundle.

Possible values are:

- STRONG: Indicates that the affinity is strong, i.e., all the EASs of the bundle shall be

in the same EDN.

- PREFERRED: Indicates that the affinity is preferred, i.e., it is preferred to have all the

EASs of the bundle in the same EDN, but it is not essential.

- WEAK: Indicates that the affinity is weak, i.e., it is not essential to have all the EASs

of the bundle in the same EDN.

FailureAction:

anyOf:

- type: string

enum:

- CANCEL

- PROCEED

- 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 EAS bundle related failure action during ACR.

Possible values are:

- CANCEL: Indicates that ACR shall be cancelled for the other EAS(s) of the bundle for which

ACR is not failed.

- PROCEED: Indicates that ACR shall proceed for the other EAS(s) of the bundle for which

ACR is not failed.

EASStatus:

anyOf:

- type: string

enum:

- ENABLED

- DISABLED

- OVERLOAD\_WARNING

- OTHER

- 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 EAS status.

Possible values are:

- ENABLED: Indicates that the EAS status is enabled

- DISABLED: Indicates that the EAS status is disabled

- OVERLOAD\_WARNING: Indicates that the EAS status is overload warning.

- OTHER: Indicates the EAS status is another status.

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