**3GPP TSG- Meeting #C3-231210**

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| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **0065** | **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:***  | Completing the support of the seamless transport layer service continuity functionality |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | SEALDD |  | ***Date:*** | 2023-04-10 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | As per the provisions of TS 23.433 and the provisions of TS 23.558 regarding the seamless transport layer service continuity functionality, the SEALDD Server can act as an EAS. It is hence needed to add "SEAL\_SEALDD\_SERVER" as a possible EAS type/category.In addition, the following issues have been identified with regards to the support for EAS capability for seamless transport layer service continuity functionality.* The terminology used is not aligned with stage 2, e.g. "seamless EAS transport layer relocation support", whereas it should be rather "EAS capability for seamless transport layer service continuity" as it is a capability that the SEALDD Server (acting as EAS) can offer and it is related to enabling seamless service continuity during SEALDD Server relocation (for the specific case of SEALDD context transfer with IP replacement).
* The feature name defined for the introduction of this functionality in this TS can be further simplified to "SEALDD".
* The following abbreviation are now used in this specification, but the definition of them is missing:
	+ SEAL/SEALDD.
 |
|  |  |
| ***Summary of change:*** | This CR proposes to:* Define a new "SEALDD" EAS type/category to support SEALDD services (e.g. SEALDD acting as EAS).
* Update the related provisions to use the correct terminology "EAS capability for seamless transport layer service continuity".
* Update the new feature name to "SEALDD".
* Define the SEAL and SEALDD abbreviations.
* Additional enhancements to the description text.
 |
|  |  |
| ***Consequences if not approved:*** | * Missing SEALDD related EAS type/category.
* Terminology misalignment remains in the specification, which may lead to confusion.
* Missing "SEALDD" abbreviation definition.
 |
|  |  |
| ***Clauses affected:*** | 3.3, 8.1.5.1, 8.1.5.2.2, 8.1.5.2.3, 8.1.5.2.7, 8.1.5.3.4, 8.1.5.3.5, 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:*** | This CR introduces a backwards compatible new feature to the OpenAPI description of the Eees\_EASRegistration API defined in this specification and the Eees\_EASDiscovery API defined in TS 24.558. |
|  |  |
| ***This CR's revision history:*** |  |

\* \* \* \* Start of changes \* \* \* \*

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

AC Application Client

ACID Application Client Identification

ACR Application Context Relocation

AF Application Function

ASP Application Service Provider

DN Data Network

DNAI Data Network Access Identifier

DNN Data Network Name

EAS Edge Application Server

EASID Edge Application Server Identification

ECS Edge Configuration Server

ECSP Edge Computing Service Provider

EDN Edge Data Network

EEC Edge Enabler Client

EECID Edge Enabler Client Identification

EEL Edge Enabler Layer

EES Edge Enabler Server

EESID Edge Enabler Server Identification

EHE Edge Hosting Environment

FQDN Fully Qualified Domain Name

GPSI Generic Public Subscription Identifier

LADN Local Area Data Network

NEF Network Exposure Function

S-EAS Source Edge Application Server

S-EES Source Edge Enabler Server

SCEF Service Capability Exposure Function

SEAL Service Enabler Architecture Layer for Verticals

SEALDD SEAL Data Delivery

SSID Service Set Identifier

T-EAS Target Edge Application Server

T-EES Target Edge Enabler Server

TAI Tracking Area Identity

\* \* \* \* Next 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 |
| EASRegistration | 8.1.5.2.2 | The EAS registration information on EES. |  |
| EASProfile | 8.1.5.2.3 | The profile information related to the EAS in the EASRegistration data type. |  |
| EASServiceKPI | 8.1.5.2.4 | Service characteristics provided by EAS, captured in EAS profile information.  |  |
| EndPoint | 8.1.5.2.5 | The end point information of the Edge Application Server in the EAS profile. |  |
| EASRegistrationPatch | 8.1.5.2.6 | To partially update the EAS Registration information. |  |
| PermissionLevel | 8.1.5.3.3 | Used to indicate the level of service permissions supported by the EAS. |  |
| EASCategory | 8.1.5.3.4 | Used to indicate the category or type of 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 continuity. | SEALDD |
| TransportProtocol | 8.1.5.3.5 | Indicates the supported transport layer protocol for EAS context transfer. | SEALDD |

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.  |  |
| LocationArea5G | 3GPP TS 29.122 [6] | Used to defined the geographic and topological area served by EAS. |  |
| 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. |  |
| 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 changes \* \* \* \*

##### 8.1.5.2.2 Type: EASRegistration

Table 8.1.5.2.2-1: Definition of type EASRegistration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| easProf | EASProfile | M | 1 | The profile information of the EAS.  |  |
| expTime | DateTime | O | 0..1 | Identifies the expiration time for the EAS registration. If the expiration time is not present, then it indicates that the registration of EAS never expires. |  |
| suppFeat | SupportedFeatures | O | 0..1 | Used to negotiate the supported optional features of the API as described in clause 7.8.This attribute shall be provided in the HTTP POST request and in the response of successful resource creation. |  |

\* \* \* \* Next changes \* \* \* \*

##### 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. |  |
| 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, NOTE 2). |  |
| flexEasType | string | O | 0..1 | The EAS type with the flexible value set.(NOTE 1, NOTE 2) |  |
| 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. |  |
| 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.(NOTE 2) | SEALDD |
| 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 etc.) |  |
| genCtxDur | DurationSec | O | 0..1 | The general context holding time duration that the EAS holds the application context before the AC connects to EAS, after receiving an ACR notification from the EES following an ACR request form the EEC. | Edge2\_EasCtxtHold |
| 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: In this release of the specification, when this attribute is present, the EAS type provided within either "type" attribute or the "flexEasType" shall be SEALDD services related. |

\* \* \* \* Next changes \* \* \* \*

##### 8.1.5.2.7 Type: TransContSuppDetails

Table 8.1.5.2.7-1: Definition of type TransContSuppDetails

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| transProtocs | array(TransportProtocol) | M | 1..N | Indicates the transport layer protocols supported for EAS (e.g. SEALDD Server) context transfer using the seamless transport layer service continuity capability. |  |

\* \* \* \* Next changes \* \* \* \*

##### 8.1.5.3.4 Enumeration: EASCategory

Table 8.1.5.3.3-1: Enumeration EASCategory

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| UAS | Category of EAS is for Uncrewed Aerial Services. |  |
| V2X | Category of EAS is for V2X Services. |  |
| SEAL\_SEADD\_SERVER | Indicates that the EAS category is SEALDD Server for SEALDD services. | SEALDD |
| OTHER | Any other type of EAS category |  |

\* \* \* \* Next changes \* \* \* \*

##### 8.1.5.3.5 Enumeration: TransportProtocol

Table 8.1.5.3.5-1: Enumeration TransportProtocol

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| QUIC | Indicates the QUIC protocol. |  |
| TCP | Indicates the Transmission Control Protocol (TCP) protocol. |  |
| TCP\_TLS | Indicates the Transmission Control Protocol (TCP) with Transport Layer Security (TLS) protocol. |  |

\* \* \* \* Next changes \* \* \* \*

### 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 | SEALDD | Represents the support of SEALDD functionality related enhancements (e.g. EAS capability for seamless transport layer service continuity). |
| 2 | Edge2\_EasCtxtHold | This feature supports the indication of context holding time that the EAS holds the application context before AC connects to the EAS. |

\* \* \* \* Next changes \* \* \* \*

# 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: 1.1.0-alpha.2

externalDocs:

 description: >

 3GPP TS 29.558 V18.1.0 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'

 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.

 transContSupp:

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

 avlRep:

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

 status:

 type: string

 description: EAS status information.

 genCtxDur:

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

 required:

 - easId

 - endPt

 not:

 required: [ type, flexEasType ]

 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'

 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]

 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

 - SEAL\_SEALDD\_SERVER

 - 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: Category of EAS is for Uncrewed Aerial Services.

 - V2X: Category of EAS is for V2X Services.

 - SEALDD: Indicates that the EAS category is SEALDD Server for SEALDD services.

 - OTHER: Any other type of 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 Protocol (TCP) protocol.

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

 (TLS) protocol.

\* \* \* \* End of changes \* \* \* \*