**3GPP TSG-CT WG1 Meeting #137-eC1-225abc**

**E-Meeting, 18th – 26th August 2022 (was C1-224764)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.558** | **CR** | **0009** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | ” | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | CT1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EDGEAPP | | | | |  | ***Date:*** | | | 2022-08-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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:*** | | According to stage 2 in TS 23.558, the EAS ID identifies a particular application and the definition of the EAS ID is out of scope of this specification.  At stage 3 level (in CT protocols), the EAS ID(“easId”) is, quote: “the identifier of EAS” and it is defined as a string data type. This is not correct as it states that the EAS ID is the identifier of the EAS entity/instance, however the EAS ID is in fact the application identifier as stated by stage 2.  Hence, there is need of changing the “identifier of EAS” to “application identifier of EAS. Also, a data type for “easId” should be defined at stage 3 level. The current use of “string” data type is not good enough for implementation and proper operation of the service. Mainly, as there is need of on using a data type which clearly shows to implementaters how to present a particular application. Based on how Internet works, it is propose to provide a data type with attributes of FQDN, URI, or other id (in TS 29.558).  Note that for client-server communication, the most widely used application identifier is the FQDN or the URI. RFC 1034 describes the history and impetus of domain names. With the applications on the Internet getting more and more sophisticated, a general purpose name service seems required. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Change the “identifier of EAS” to “application identifier of EAS”; and  2. define an appropiate data type for the “easId”. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The speciificaion is not aligned with stage 2 on the EAS ID and it also provides a definition of “easId” which is misleading and can lead to wrong implementations and misoperation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2.5.1, 6.2.5.2.4, 6.3.5.1, 6.3.5.2.7, 6.3.5.2.10, 6.3.5.2.13, 6.4.5.1, 6.4.5.2.2, 6.4.5.2.3, 6.4.5.2.5, 6.5.5.1, 6.5.5.2.2, 6.5.5.2.3, 6.5.5.2.4, 8.1.5.1, 8.1.5.2.9, A.2, A.2, A.4, A.5, B.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 29.558 CR 0015 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 6.2.5.1 General

This clause specifies the application data model supported by the Eees\_EECRegistration API.

Table 6.2.5.1-1 specifies the data types defined specifically for the Eees\_EECRegistration API service.

Table 6.2.5.1-1: Eees\_EECRegistration API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| EECRegistration | 6.2.5.2.2 | Describes the parameters to perform EEC Registration related operations |  |
| acProfile | 6.2.5.2.3 | Describes information about AC used to determine services and service characteristics required |  |
| EASDetail | 6.2.5.2.4 | Describes EAS along with service KPIs that serves the AC |  |
| acServiceKPIs | 6.2.5.2.5 | Describes the KPIs required by the AC in order to receive required services |  |

Table 6.2.5.1-2 specifies data types re-used by the Eees\_EECRegistration API service.

Table 6.2.5.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| BitRate | 3GPP TS 29.571 [5] |  |  |
| DateTime | 3GPP TS 29.122 [3] |  |  |
| EndPoint | 3GPP TS 29.558 [4] |  |  |
| ScheduledCommunicationTime | 3GPP TS 29.122 [3] |  |  |
| LocationArea5G | 3GPP TS 29.122 [3] |  |  |
| Uinteger | 3GPP TS 29.571 [5] |  |  |
| DurationSec | 3GPP TS 29.122 [3] |  |  |
| SupportedFeatures | 3GPP TS 29.571 [5] |  |  |
| Gpsi | 3GPP TS 29.571 [5] |  |  |
| ACRScenario | 3GPP TS 29.558 [4] |  |  |
| EASId | 3GPP TS 29.558 [4] |  |  |

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

##### 6.2.5.2.4 Type: EasDetail

Table 6.2.5.2.2-1: Definition of type EasDetail

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| easId | EASId | M | 1 | The application identifier of the EAS |  |
| expectedSvcKPIs | ACServiceKPIs | O | 0..1 | Describes the KPIs expected in order for ACs to receive currently required services from the EAS |  |
| minimumReqSvcKPIs | ACServiceKPIs | O | 0..1 | Describes the minimum KPIs required in order for ACs to receive meaningful services from the EAS |  |

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

#### 6.3.5.1 General

This clause specifies the application data model supported by the Eees\_EASDiscovery API.

Table 6.3.5.1-1 specifies the data types defined specifically for the Eees\_EASDiscovery API service.

Table 6.3.5.1-1: Eees\_EASDiscovery API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| EasDiscoveryReq | 6.3.5.2.2 |  |  |
| EasDiscoveryResp | 6.3.5.2.3 |  |  |
| EasDiscoverySubscription | 6.3.5.2.4 |  |  |
| EasDiscoveryNotification | 6.3.5.2.5 |  |  |
| EasDiscoveryFilter | 6.3.5.2.6 |  |  |
| EasCharacteristics | 6.3.5.2.7 |  |  |
| DiscoveredEas | 6.3.5.2.8 |  |  |
| EasDynamicInfoFilter | 6.3.5.2.9 |  |  |

Table 6.3.5.1-2 specifies data types re-used by the Eees\_EASDiscovery API service.

Table 6.3.5.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| TimeWindow | 3GPP TS 29.122 [3] |  |  |
| DurationSec | 3GPP TS 29.122 [3] |  |  |
| LocationArea5G | 3GPP TS 29.122 [3] |  |  |
| ACProfile | clause 6.2.5.2.3 |  |  |
| LocationInfo | 3GPP TS 29.122 [3] |  |  |
| EndPoint | 3GPP TS 29.558 [4] |  |  |
| EASProfile | 3GPP TS 29.558 [4] |  |  |
| Dnai | 3GPP TS 29.571 [5] |  |  |
| RouteToLocation | 3GPP TS 29.571 [5] |  |  |
| Gpsi | 3GPP TS 29.571 [5] | Used to identify a UE. |  |
| Uri | 3GPP TS 29.122 [3] |  |  |
| EASId | 3GPP TS 29.558 [4] |  |  |

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

##### 6.3.5.2.7 Type: EasCharacteristics

Table 6.3.5.2.7-1: Definition of type EasCharacteristics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| easId | EASId | O | 0..1 | The application identifier of the EAS |  |
| easProvId | string | O | 0..1 | EAS provider identifier |  |
| easType | string | O | 0..1 | EAS type |  |
| easSched | TimeWindow | O | 0..1 | EAS availability schedule |  |
| svcArea | LocationArea5G | O | 0..1 | Service availability area (geographical and topological) |  |
| easSvcContinuity | array(ACRScenario) | O | 0..1 | The ACR scenarios required by the EAS for service continuity. If this attribute is not present, then the EAS does not require to support service continuity. |  |
| svcPermLevel | string | O | 0..1 | Service permissions level |  |
| svcFeats | array(string) | O | 1..N | Service features |  |
| NOTE: Must include at least one optional IE | | | | | |

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

##### 6.3.5.2.10 Type: EasDynamicInfoFilterData

Table 6.3.5.2.10-1: Definition of type EasDynamicInfoFilterData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| easId | EASId | M | 1 | The application identifier of the EAS |  |
| easStatus | boolean | O | 0..1 | Notify if EAS status changed |  |
| easAcIds | boolean | O | 0..1 | Notify if list of AC identifiers changed |  |
| easDesc | boolean | O | 0..1 | Notify if EAS description changed |  |
| easPt | boolean | O | 0..1 | Notify if EAS endpoint changed |  |
| easFeature | boolean | O | 0..1 | Notify if EAS feature changed |  |
| easSchedule | boolean | O | 0..1 | Notify if EAS schedule changed |  |
| svcArea | boolean | O | 0..1 | Notify if EAS service area changed |  |
| svcKpi | boolean | O | 0..1 | Notify if EAS KPIs changed |  |
| svcCont | boolean | O | 0..1 | Notify if EAS supported ACR changed |  |

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

##### 6.3.5.2.13 Type: RequestorId

Table 8.6.5.2.13-1: Definition of type RequestorId

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| EesId | string | C | 0..1 | The identifier of the EES (e.g. S-EES). |  |
| EasId | EASId | C | 0..1 | The application identifier of the EAS (e.g. S-EAS). |  |
| eecId | string | C | 0..1 | The identifier of the EEC. |  |
| NOTE: Either the "eecId" attribute, the "EesId" attribute or the "EasId" attribute shall be provided, they are mutually exclusive. | | | | | |

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

#### 6.4.5.1 General

This clause specifies the application data model supported by the Eees\_ACREvents API.

Table 6.4.5.1-1 specifies the data types defined specifically for the Eees\_ACREvents API service.

Table 6.4.5.1-1: Eees\_ACREvents API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| ACREventsSubscription | 6.4.5.2.2 |  |  |
| ACRInfoNotification | 6.4.5.2.3 |  |  |
|  |  |  |  |
| ACREventIDs | 6.4.5.3.3 |  |  |

Table 6.4.5.1-2 specifies data types re-used by the Eees\_ACREvents API service.

Table 6.4.5.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| DateTime | 3GPP TS 29.122 [3] |  |  |
| Uri | 3GPP TS 29.122 [3] |  |  |
| WebsockNotifConfig | 3GPP TS 29.122 [3] |  |  |
| SupportedFeatures | 3GPP TS 29.571 [5] |  |  |
| EDNConfigInfo | Clause 8.1.5.2.7 |  |  |
| DiscoveredEas | Clause 6.3.5.2.8 |  |  |
| ImplicitRegDetail | 3GPP TS 29.558 [4] |  |  |
| EASId | 3GPP TS 29.558 [4] |  |  |

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

##### 6.4.5.2.2 Type: ACREventsSubscription

Table 6.4.5.2.2-1: ACREventsSubscription

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| eecId | string | M | 0..1 | Represents a unique identifier of the EEC. |  |
| ueId | Gpsi | O | 0..1 | Represents the identifier of the UE. |  |
| expTime | DateTime | O | 0..1 | Indicates the expiration time of the subscription. If the expiration time is not present, then it indicates that the EEC subscription never expires. |  |
| easIds | array(EASId) | M | 1..N | The list of application identifiers of the EASs |  |
| acIds | array(string) | O | 1..N | The list of identifier of the AC(s) (NOTE) |  |
| eventIds | ACREventIDs | M | 1 | Specifies the events for which EEC is subscribing. |  |
| notificationDestination | Uri | M | 1 | URI where the ACR Information Notification should be delivered to. |  |
| requestTestNotification | boolean | O | 0..1 | Set to true by Subscriber to request the ECS to send a test notification as defined in clause 7.6 of 3GPP TS 29.558 [4]. Set to false or omitted otherwise. | Notification\_test\_event |
| websockNotifConfig | WebsockNotifConfig | O | 0..1 | Configuration parameters to set up notification delivery over Websocket protocol as defined in clause 7.6 of 3GPP TS 29.558 [4]. | Notification\_websocket |
| suppFeat | SupportedFeatures | O | 0..1 | Used to negotiate the supported optional features of the API as described in clause 7.8 of 3GPP TS 29.558 [4].  This attribute shall be provided in the HTTP POST request and in the response of successful resource creation. |  |
| NOTE: If acIds attribute is not included, it implies that the subscription corresponds to all ACs that can be served by the EAS(s) included this message. | | | | | |

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

##### 6.4.5.2.3 Type: ACRInfoNotification

Table 6.4.5.2.3-1: ACRInfoNotification

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| subId | string | M | 1 | String identifying the Individual ACR events subscription for which the ACT Information notification is delivered. |  |
| easId | EASId | M | 1 | The application identifier of the EASs |  |
| eventId | ACREventIDs | M | 1 | Specifies the events for which notification is sent |  |
| acId | string | O | 0..1 | Contains the identifier of the AC. |  |
| trgtInfo (NOTE 1) | TargetInfo | O | 0..1 | Details of the selected T-EAS and the T-EES. |  |
| acrRes (NOTE 2) | boolean | O | 0..1 | Indicates whether the ACR is successful or failure |  |
| failReason (NOTE 3) | string | O | 0..1 | Indicates the cause information for the failure |  |
| eecCtxtReloc (NOTE 4) | EecCtxtRelocStatus | O | 0..1 | Specifies the registration id and expiry time of the registration. |  |
|  |  |  |  |  |  |
| NOTE 1: This attribute shall be included when Event ID indicates 'TARGET\_INFORMATION' event  NOTE 2: This attribute shall be included when Event ID indicates 'ACR\_COMPLETE' event  NOTE 3: This attribute shall be included when the ACRRes attribute indicates failure.  NOTE 4: This attribute shall be included when eventId indicates 'ACR\_COMPLETE' event and EEC context relocation was attempted. | | | | | |

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

##### 6.4.5.2.5 Type: ACREventsSubscriptionPatch

Table 6.4.5.2.5-1: ACREventsSubscriptionPatch

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| expTime | DateTime | O | 0..1 | Indicates the expiration time of the subscription. If the expiration time is not present, then it indicates that the EEC subscription never expires. |  |
| easIds | array(EASId) | O | 1..N | The list of application identifiers of the EASs |  |
| eventIds | ACREventIDs | O | 0..1 | Specifies the events for which EEC is subscribing. |  |
| notificationDestination | Uri | O | 0..1 | URI where the ACR Information Notification should be delivered to. This attribute shall be present in HTTP POST message to EES. |  |

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

#### 6.5.5.1 General

This clause specifies the application data model supported by the Eees\_AppContextRelocation API.

Table 6.5.5.1-1 specifies the data types defined specifically for the Eees\_AppContextRelocation API service.

Table 6.5.5.1-1: Eees\_AppContextRelocation API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| AcrDecReq | 6.5.5.2.4 |  |  |
| AcrDetermReq | 6.5.5.2.2 |  |  |
| AcrInitReq | 6.5.5.2.3 |  |  |
| EecCtxtReloc | 6.5.5.2.5 |  |  |

Table 6.5.5.1-2 specifies data types re-used by the Eees\_AppContextRelocation API service from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Eees\_AppContextRelocation.

Table 6.5.5.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| RouteToLocation | 3GPP TS 29.571 [5] | Represent the N6 traffic routing information and/or routing profile ID for a DNAI. |  |
| EndPoint | 3GPP TS 29.558 [4] | Represents the endpoint information of an EAS. |  |
| Gpsi | 3GPP TS 29.571 [5] | Represents a GPSI. |  |
| EASId | 3GPP TS 29.558 [4] |  |  |

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

##### 6.5.5.2.2 Type: AcrDetermReq

Table 6.5.5.2.2-1: Definition of type AcrDetermReq

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| requestorId | string | M | 1 | Contains the identifier of the EEC or the EAS that is sending the request. |  |
| easId | EASId | O | 0..1 | Contains the application identifier of the EAS. |  |
| sEasEndpoint | EndPoint | M | 1 | Contains the endpoint information of the selected S-EAS. |  |
| ueId | Gpsi | M | 1 | Contains the identifier of the concerned UE. |  |
| acId | string | O | 0..1 | Contains the identifier of the AC. |  |

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

##### 6.5.5.2.3 Type: AcrInitReq

Table 6.5.5.2.3-1: Definition of type AcrInitReq

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| requestorId | string | M | 1 | Contains the identifier of the EEC that is sending the request. |  |
| easId | EASId | O | 0..1 | Contains the application identifier of the EAS. |  |
| ueId | Gpsi | M | 1 | Contains the identifier of the concerned UE. |  |
| acId | string | O | 0..1 | Contains the identifier of the AC. |  |
| tEasEndpoint | EndPoint | M | 1 | Contains the endpoint information of the T-EAS. |  |
| sEasEndpoint | EndPoint | C | 0..1 | Contains the endpoint information of the S-EAS.  This attribute shall be provided when the "easNotifInd" attribute is set to "true" or when the "prevEasNotifInd" attribute is present and set to "true". |  |
| prevTEasEndpoint | EndPoint | C | 0..1 | Contains the endpoint information of the previous T-EAS.  This attribute shall be provided when the EEC re-sends the ACR request to indicate that a previous ACR is to be cancelled. |  |
| routeReq | RouteToLocation | O | 0..1 | Contains the T-EAS's DNAI information and the corresponding N6 traffic routing information and/or routing profile ID. |  |
| easNotifInd | boolean | C | 1 | Indicates whether the EAS should be notified about the need for ACR or ACR cancellation.  "true": Notification required.  "false" (default): Notification not required. |  |
| prevEasNotifInd | boolean | C | 0..1 | Indicates whether the EAS should be notified about ACR cancellation.  "true": Notification required.  "false" (default): Notification not required.  This attribute shall be provided when the EEC re-sends the ACR request to indicate that a previous ACR is to be cancelled. |  |
| eecCtxtReloc | EecCtxtReloc | O | 0..1 | Contains EEC context relocation information. |  |

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

##### 6.5.5.2.4 Type: AcrDecReq

Table 6.5.5.2.4-1: Definition of type AcrDecReq

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| requestorId | string | M | 1 | Contains the identifier of the EAS that is sending the request. |  |
| ueId | Gpsi | M | 1 | Contains the identifier of the concerned UE. |  |
| acId | string | O | 0..1 | Contains the identifier of the AC. |  |
| tEasId | EASId | M | 1 | Contains the application identifier of the selected target EAS. |  |
| tEasEndpoint | EndPoint | M | 1 | Contains the endpoint information of the selected target EAS. |  |

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

#### 8.1.5.1 General

This clause specifies the application data model supported by the API. Data types listed in clause 7.2 of 3GPP TS 29.558 [4] apply to this API.

Table 8.1.5.1-1 specifies the data types defined specifically for the Eecs\_ServiceProvisioning API service.

Table 8.1.5.1-1: Eecs\_ServiceProvisioning API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| ECSServProvReq | 8.1.5.2.2 |  |  |
| ECSServProvResp | 8.1.5.2.3 |  |  |
| ECSServProvSubscription | 8.1.5.2.4 | Represents the service provisioning subscription. |  |
| ConnectivityInfo | 8.1.5.2.5 |  |  |
| ServProvNotification | 8.1.5.2.6 | Service provisioning information notification from ECS to EEC. |  |
| EDNConfigInfo | 8.1.5.2.7 |  |  |
| EDNConInfo | 8.1.5.2.8 |  |  |
| EESInfo | 8.1.5.2.9 |  |  |

Table 8.1.5.1-2 specifies data types re-used by the Eecs\_ServiceProvisioning API service.

Table 8.1.5.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| PlmnId | 3GPP TS 29.571 [5] |  |  |
| ACProfile | clause 6.2.5.2.3 |  |  |
| DateTime | 3GPP TS 29.122 [3] |  |  |
| Uri | 3GPP TS 29.122 [3] |  |  |
| SupportedFeatures | 3GPP TS 29.571 [5] | Used to negotiate the applicability of optional features. |  |
| Snssai | 3GPP TS 29.571 [5] |  |  |
| LocationArea5G | 3GPP TS 29.122 [3] |  |  |
| EndPoint | 3GPP TS 29.558 [4] |  |  |
| Dnai | 3GPP TS 29.571 [5] |  |  |
| LocationInfo | 3GPP TS 29.122 [3] | The location information related to the UE. |  |
| Dnn | 3GPP TS 29.571 [5] |  |  |
| Gpsi | 3GPP TS 29.571 [5] | Used to identify the UE. |  |
| ACRScenario | 3GPP TS 29.558 [4] |  |  |
| EASId | 3GPP TS 29.558 [4] |  |  |

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

##### 8.1.5.2.9 Type: EESInfo

Table 8.1.5.2.9-1: Definition of type EESInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| eesId | string | M | 1 | The identifier of the EES |  |
| endPt | EndPoint | M | 1 | Endpoint information (e.g. URI, FQDN, IP address) used to communicate with the EES. This information is provided to the EEC to connect to the EES. |  |
| easIds | array(EASId) | O | 1..N | The list of application identifiers of the Edge Application Servers registered with the EES. |  |
| ecspInfo | string | O | 0..1 | String representing the EES Provider (such as ECSP Information) |  |
| svcArea | LocationArea5G | O | 0..1 | The list of geographical and topological areas that the EES serves. EECs in the UE that are outside the area shall not be served. |  |
| dnais | array(Dnai) | O | 0..1 | Represents list of Data network access identifier |  |
| eesSvcContSupp | array(ACRScenario) | O | 0..1 | The ACR scenarios supported by the EES for service continuity. If this attribute is not present, then the EEC does not support service continuity. |  |
| eecRegConf | boolean | M | 1 | Indicates whether the EEC is required to register on the EES to use edge services or not |  |

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

# A.2 Eees\_EECRegistration

openapi: 3.0.0

info:

title: Eees\_EECRegistration

version: "1.0.0"

description: |

API for EEC registration.

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externalDocs:

description: >

3GPP TS 24.558 V17.0.0 Enabling Edge Applications; Protocol specification.

url: 'https://www.3gpp.org/ftp/Specs/archive/24\_series/24.558/'

security:

- {}

- oAuth2ClientCredentials: []

servers:

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

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 6.1 of 3GPP TS 24.558

paths:

/registrations:

post:

description: Create a new EEC registration at the EES.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (EEC information is registered successfully at EES).

content:

application/json:

schema:

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

'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'

/registrations/{registrationId}:

put:

description: Update an existing EEC registration a the EES.

parameters:

- name: registrationId

in: path

description: Identifies an individual EEC registration

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing registration

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (An individual EEC registration resource updated successfully).

content:

application/json:

schema:

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

'204':

description: >

No Content (An individual EEC registration resource 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:

description: Remove an existing ECC registration at EES.

parameters:

- name: registrationId

in: path

description: Identifies an individual EEC registration

required: true

schema:

type: string

responses:

'204':

description: >

No Content (An individual EEC registration resource deleted 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'

'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 EEC registration a the EES.

parameters:

- name: registrationId

in: path

description: Identifies an individual EEC registration

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing registration

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (An individual EEC registration resource updated successfully).

content:

application/json:

schema:

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

'204':

description: >

No Content (An individual EEC registration resource 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'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

EECRegistration:

description: Describes the parameters to perform EEC Registration related operations.

type: object

properties:

eecId:

type: string

description: Represents a unique identifier of the EEC.

ueId:

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

acProfs:

type: array

items:

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

description: Profiles of ACs for which the EEC provides edge enabling services.

expTime:

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

eecSvcContSupp:

type: array

items:

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

description: Profiles of ACs for which the EEC provides edge enabling services.

eecCntxId:

type: string

description: Identifier of the EEC context obtained from a previous registration.

srcEesId:

type: string

description: Identifier of the EES that provided EEC context ID.

endPt:

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

unfulfilledAcProfs:

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

required:

- eecId

ACProfile:

description: ECS service provisioning response information.

type: object

properties:

acId:

type: string

description: Identity of the AC.

acType:

type: string

description: The category or type of AC.

prefEcsps:

type: array

items:

type: string

description: Indicates to the ECS which ECSPs are preferred for the AC.

acSchedule:

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

expAcGeoServArea:

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

acSvcContSupp:

type: array

items:

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

description: Profiles of ACs for which the EEC provides edge enabling services.

eass:

type: array

items:

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

minItems: 1

description: List of EAS information.

required:

- acId

EasDetail:

description: EAS details.

type: object

properties:

easId:

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

description: Application identifier of the EAS.

expectedSvcKPIs:

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

minimumReqSvcKPIs:

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

required:

- easId

ACServiceKPIs:

description: EAS details.

type: object

properties:

connBand:

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

reqRate:

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

respTime:

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

avail:

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

reqComp:

type: string

description: The compute resources required by the AC.

reqGrapComp:

type: string

description: The graphical compute resources required by the AC.

reqMem:

type: string

description: The memory resources required by the AC.

reqStrg:

type: string

description: The storage resources required by the AC.

EECRegistrationPatch:

description: Describes the parameters to perform EEC Registration update.

type: object

properties:

acProfs:

type: array

items:

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

description: Profiles of ACs for which the EEC provides edge enabling services.

expTime:

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

unfulfilledAcProfs:

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

UnfulfilledAcProfile:

description: Desrcibes AC Profile ID and reason sent by EES in EEC Register response.

type: object

properties:

acId:

type: string

description: The AC ID of a AC profile.

reason:

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

UnfulfillACProfRsn:

anyOf:

- type: string

enum:

- EAS\_NOT\_AVAILABLE

- REQ\_UNFULFILLED

description: represents reason for unfulfilled AC profile requirements.

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

# A.3 Eees\_EASDiscovery API

openapi: 3.0.0

info:

title: Eees\_EASDiscovery

description: |

API for EAS Discovery.

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version: "1.0.0"

externalDocs:

description: >

3GPP TS 24.558 V17.0.0 Enabling Edge Applications; Protocol specification.

url: https://www.3gpp.org/ftp/Specs/archive/24\_series/24.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

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

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 6.1 of 3GPP TS 24.558

paths:

/subscriptions:

post:

description: Creates a new individual EAS discovery subscription.

tags:

- EAS Discovery Subscriptions

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: >

Created. A new Individual EAS Discovery Subscription resource was successfully

created.

content:

application/json:

schema:

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

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:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content (The receipt of the Notification is 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}:

put:

description: >

Updates an existing individual EAS discovery subscription identified by the subscriptionId.

tags:

- Individual EAS Discovery Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual EAS discovery subscription resource

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK. The individual EAS discovery subscription resource was updated successfully.

content:

application/json:

schema:

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

'204':

description: No Content (updated successfully).

'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: >

Deletes an existing individual EAS discovery subscription identified by the subscriptionId.

tags:

- Individual EAS Discovery Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual EAS discovery subscription resource

required: true

schema:

type: string

responses:

'204':

description: >

An individual EAS discovery subscription resource deleted 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'

'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: >

Partial update an existing EAS Discovery Subscription resource identified by a

subscriptionId.

tags:

- Individual EAS Discovery Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual EAS discovery subscription resource

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK (An individual EAS discovery subscription resource updated successfully)

content:

application/json:

schema:

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

'204':

description: No Content (modified successfully).

'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'

/eas-profiles/request-discovery:

post:

description: Provides EAS information requested by the service consumer (i.e. EEC, EAS or EES).

tags:

- EAS Profiles

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK (The requested EAS discovery information was returned successfully).

content:

application/json:

schema:

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

'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:

EasDiscoveryReq:

description: ECS service provisioning request information.

type: object

properties:

requestorId:

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

ueId:

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

easDiscoveryFilter:

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

eecSvcContinuity:

type: array

items:

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

description: Indicates if the EEC supports service continuity or not, also indicates which ACR scenarios are supported by the EEC.

eesSvcContinuity:

type: array

items:

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

description: Indicates if the EEC supports service continuity or not, also indicates which ACR scenarios are supported by the EEC.

easSvcContinuity:

type: array

items:

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

description: Indicates if the EEC supports service continuity or not, also indicates which ACR scenarios are supported by the EEC.

locInf:

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

easTDnai:

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

required:

- requestorId

EasDiscoveryResp:

description: ECS discovery response.

type: object

properties:

discoveredEas:

type: array

items:

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

description: List of EAS discovery information.

required:

- discoveredEas

EasDiscoverySubscription:

description: Represents an Individual EAS Discovery Subscription resource.

type: object

properties:

eecId:

type: string

description: Represents a unique identifier of the EEC.

ueId:

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

easEventType:

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

easDiscoveryFilter:

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

easDynInfoFilter:

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

easSvcContinuity:

type: array

items:

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

description: Indicates if the EEC supports service continuity or not, also indicates which ACR scenarios are supported by the EEC.

expTime:

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

notificationDestination:

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

requestTestNotification:

type: boolean

description: Set to true by Subscriber to request the ECS 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:

- eecId

- easEventType

EasDiscoveryNotification:

description: Notification of EAS discovery information.

type: object

properties:

subId:

type: string

description: Identifier of the individual service provisioning subscription for which the service provisioning notification is delivered.

eventType:

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

discoveredEas:

type: array

items:

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

minItems: 1

description: List of EAS discovery information.

required:

- subId

- eventType

- discoveredEas

EasDiscoveryFilter:

description: Represents the EAS characteristics.

type: object

properties:

acChars:

type: array

items:

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

minItems: 1

description: AC description for which an EAS is needed.

easChars:

type: array

items:

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

minItems: 1

description: Required EAS chararcteristics.

EasCharacteristics:

description: Represents the EAS chararcteristics.

type: object

properties:

easId:

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

description: EAS application identifier.

easProvId:

type: string

description: EAS provider identifier.

easType:

type: string

description: EAS type.

easSched:

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

svcArea:

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

easSvcContinuity:

type: array

items:

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

description: Indicates if the EEC supports service continuity or not, also indicates which ACR scenarios are supported by the EEC.

svcPermLevel:

type: string

description: Service permissions level.

svcFeats:

type: array

items:

type: string

minItems: 1

description: Service features.

DiscoveredEas:

description: Represents an EAS discovery information.

type: object

properties:

eass:

type: array

items:

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

minItems: 1

description: Contains the list of EAS matching the discovery request filters

lifeTime:

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

required:

- eass

EasDynamicInfoFilter:

description: Represents EAS dynamic information changes filter.

type: object

properties:

dynInfoFilter:

type: array

items:

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

minItems: 1

description: List of EAS dynamic information required by the EEC per EAS.

required:

- dynInfoFilter

EasDynamicInfoFilterData:

description: Represents an EAS dynamic information.

type: object

properties:

eecId:

type: string

description: Represents a unique identifier of the EEC.

easStatus:

type: boolean

description: Notify if EAS status changed.

easAcIds:

type: boolean

description: Notify if list of AC identifiers changed.

easDesc:

type: boolean

description: Notify if EAS description changed.

easPt:

type: boolean

description: Notify if EAS endpoint changed.

easFeature:

type: boolean

description: NotiNotify if EAS feature changed.

easSchedule:

type: boolean

description: Notify if EAS schedule changed.

svcArea:

type: boolean

description: Notify if EAS service area changed.

svcKpi:

type: boolean

description: Notify if EAS KPIs changed.

svcCont:

type: boolean

description: Notify if EAS supported ACR changed.

required:

- eecId

ACCharacteristics:

description: Represents EAS dynamic information changes filter.

type: object

properties:

acProf:

$ref: 'TS24558\_Eees\_EECRegistration.yaml#/components/schemas/ACProfile'

required:

- acProf

EASDiscEventIDs:

anyOf:

- type: string

enum:

- EAS\_AVAILABILITY\_CHANGE

- EAS\_DYNAMIC\_INFO\_CHANGE

- 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: >

Possible values are

- EAS\_AVAILABILITY\_CHANGE: Represents the EAS availability change event.

- EAS\_DYNAMIC\_INFO\_CHANGE: Represents the EAS dynamic information change event.

EasDiscoverySubscriptionPatch:

description: Represents an Individual EAS Discovery Subscription resource.

type: object

properties:

easDiscoveryFilter:

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

easDynInfoFilter:

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

easSvcContinuity:

type: array

items:

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

description: Indicates if the EEC supports service continuity or not, also indicates which ACR scenarios are supported by the EEC.

expTime:

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

RequestorId:

description: Represents identifier of the requestor.

type: object

properties:

eesId:

type: string

easId:

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

eecId:

type: string

oneOf:

- required: [eesId]

- required: [easId]

- required: [eecId]

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

# A.4 Eees\_ACREvents API

openapi: 3.0.0

info:

title: Eees\_ACREvents

version: "1.0.0"

description: |

API for ACR events subscription and notification.

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externalDocs:

description: >

3GPP TS 24.558 V17.0.0 Enabling Edge Applications; Protocol specification.

url: 'https://www.3gpp.org/ftp/Specs/archive/24\_series/24.558/'

security:

- {}

- oAuth2ClientCredentials: []

servers:

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

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 6.1 of 3GPP TS 24.558

paths:

/subscriptions:

post:

description: Creates a new individual ACR events subscription.

operationId: CreateACREventsSubscripton

tags:

- ACR events subscription (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Individual ACR events subscription resource created successfully.

content:

application/json:

schema:

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

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/ACRInfoNotification'

responses:

'204':

description: No Content (The receipt of the Notification is 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}:

put:

description: >

Updates an existing individual ACR events subscription identified by the subscriptionId.

operationId: UpdateACREventsSubscription

tags:

- Individual ACR Events Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual ACR Events subscription resource

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK (An individual ACR Events subscription resource updated successfully).

content:

application/json:

schema:

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

'204':

description: No Content (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:

description: >

Deletes an existing individual ACR events subscription identified by the subscriptionId.

operationId: DeleteACREventsSubscription

tags:

- Individual ACR Events Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual ACR Events subscription resource.

required: true

schema:

type: string

responses:

'204':

description: An individual ACR Events subscription resource deleted 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'

'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 modifyan existing individual ACR events subscription identified by the subscriptionId.

operationId: ModifyACREventsSubscription

tags:

- Individual ACR Events Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual ACR Events subscription resource.

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing subscription

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

OK (An individual ACR Events subscription resource updated successfully).

content:

application/json:

schema:

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

'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'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

ACREventsSubscription:

description: ACE Events subscription request.

type: object

properties:

eecId:

type: string

description: Represents a unique identifier of the EEC.

ueId:

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

expTime:

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

easIds:

type: array

items:

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

minItems: 1

description: The list of application identifiers of the EASs.

eventIds:

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

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by Subscriber to request the ECS 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:

- eecId

- easIds

- eventIds

- notificationDestination

ACRInfoNotification:

description: Notification of ACR events information.

type: object

properties:

subId:

type: string

description: >

String identifying the Individual ACR events subscription for which the ACT

Information notification is delivered.

easId:

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

description: Application identifier of the EAS.

eventId:

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

trgtInfo:

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

acrRes:

type: boolean

description: Indicates whether the ACR is successful or failure.

failReason :

type: string

description: Indicates the cause information for the failure.

eecCtxtReloc:

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

required:

- subId

- easId

- eventId

TargetInfo:

description: Details of the selected T-EAS and the T-EES.

type: object

properties:

trgetEASInfo:

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

trgetEESInfo:

$ref: 'TS24558\_Eecs\_ServiceProvisioning.yaml#/components/schemas/EDNConfigInfo'

ACREventsSubscriptionPatch:

description: An individual ACR events subscription resource to be updated.

type: object

properties:

expTime:

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

easIds:

type: array

items:

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

minItems: 1

description: The list of application identifiers of the EASs.

eventIds:

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

notificationDestination:

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

ACREventIDs:

anyOf:

- type: string

enum:

- TARGET\_INFORMATION

- ACR\_COMPLETE

- 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: >

Possible values are

- TARGET\_INFORMATION: Represents the target information event.

- ACR\_COMPLETE: Represents the ACR complete event.

EecCtxtRelocStatus:

description: Indicates the registration id and expiry time of the registration.

type: object

properties:

implReg:

$ref: 'TS29558\_Eees\_EECContextRelocation.yaml#/components/schemas/ImplicitRegDetails'

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

# A.5 Eees\_AppContextRelocation API

openapi: 3.0.0

info:

title: Eees Application Context Relocation Service

version: "1.0.0"

description: |

Eees Application Context Relocation Service.

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externalDocs:

description: >

3GPP TS 24.558 V17.0.0; Enabling Edge Applications; Protocol specification; Stage 3.

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/24.558/'

servers:

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

variables:

apiRoot:

default: https://example.com

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

security:

- {}

- oAuth2ClientCredentials:

- eees-appctxtreloc

paths:

/determine:

post:

summary: Request ACR determination.

operationId: Determine

tags:

- Determine ACR

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'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'

/initiate:

post:

summary: Request the initiation of ACR.

operationId: Initiate

tags:

- Initiate ACR

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'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'

/declare:

post:

summary: Informs about the selected target EAS and provides the associated information.

operationId: Declare

tags:

- Declare selected target EAS

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: >

No Content. The selected target EAS information is successfully received.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{nrfApiRoot}/oauth2/token'

scopes:

eees-appctxtreloc: Access to the Eees\_AppContextRelocation API

schemas:

AcrDetermReq:

description: Represents the parameters to request ACR with action determination.

type: object

properties:

requestorId:

type: string

ueId:

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

acId:

type: string

easId:

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

sEasEndpoint:

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

required:

- requestorId

- sEasEndpoint

AcrInitReq:

description: Represents the parameters to request ACR with action initiation.

type: object

properties:

requestorId:

type: string

ueId:

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

acId:

type: string

easId:

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

tEasEndpoint:

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

sEasEndpoint:

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

prevTEasEndpoint:

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

routeReq:

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

easNotifInd:

type: boolean

default: false

prevEasNotifInd:

type: boolean

default: false

eecCtxtReloc:

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

required:

- requestorId

- tEasEndpoint

- easNotifInd

AcrDecReq:

description: >

Represents the parameters to inform about the selected target EAS and provide the

associated information.

type: object

properties:

ueId:

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

acId:

type: string

tEasId:

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

tEasEndpoint:

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

required:

- ueId

- tEasId

- tEasEndpoint

EecCtxtReloc:

description: Represents EEC Context relocation information.

type: object

properties:

eecCtxtId:

type: string

sEesId:

type: string

sEecEndpoint:

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

tEesId:

type: string

tEecEndpoint:

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

required:

- eecCtxtId

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

# B.1 Eecs\_ServiceProvisioning

openapi: 3.0.0

info:

title: Eecs\_ServiceProvisioning

version: "1.0.0"

description: |

API for ECS Service Provisioning.

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externalDocs:

description: 3GPP TS 24.558 V17.0.0 Enabling Edge Applications; Protocol specification.

url: https://www.3gpp.org/ftp/Specs/archive/24\_series/24.558/

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/eecs-serviceprovisioning/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/subscriptions:

post:

description: >

Creates a new subscription in ECS in order to be notified of provisioning data

changes of interest.

tags:

- Service Provisioning Subscriptions

requestBody:

required: true

content:

application/json:

schema:

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

callbacks:

notificationDestination:

'{request.body#/notificationDestination}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content (successful notification)

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

responses:

'201':

description: >

Individual ECS Service Provisioning Subscription resource created successfully.

content:

application/json:

schema:

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

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'

/subscriptions/{subscriptionId}:

put:

description: >

Updates an existing individual service provisioning subscription identified

by the subscriptionId.

tags:

- Individual Service Provisioning Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual service provisioning subscription

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK (The individual service provisioning subscription matching the subscriptionId

was modified successfully).

content:

application/json:

schema:

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

'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: >

Deletes an existing individual service provisioning subscription identified by

the subscriptionId.

tags:

- Individual Service Provisioning Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual service provisioning subscription

required: true

schema:

type: string

responses:

'204':

description: >

The individual service provisioning subscription matching the subscriptionId 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'

patch:

description: >

Partially updates an existing individual service provisioning subscription identified

by the subscriptionId.

tags:

- Individual Service Provisioning Subscription

parameters:

- name: subscriptionId

in: path

description: Identifies an individual service provisioning subscription

required: true

schema:

type: string

requestBody:

description: Parameters to replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK (The individual service provisioning subscription matching the subscriptionId

was modified successfully)

content:

application/json:

schema:

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

'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'

/request:

post:

summary: Request service provisioning information.

operationId: RequestServProv

tags:

- Request Service Provisioning

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK (The requested service provisioning information was returned successfully).

content:

application/json:

schema:

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

'204':

description: >

No Content (the requested service provisioning information does not exist).

'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:

ECSServProvReq:

description: ECS service provisioning request information.

type: object

properties:

eecId:

type: string

description: Represents a unique identifier of the EEC.

ueId:

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

acProfs:

type: array

items:

$ref: 'TS24558\_Eees\_EECRegistration.yaml#/components/schemas/ACProfile'

description: Information about services the EEC wants to connect to.

eecSvcContSupp:

type: array

items:

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

description: >

Indicates if the EEC supports service continuity or not, also indicates which

ACR scenarios are supported by the EEC.

connInfo:

type: array

items:

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

description: List of connectivity information for the UE.

locInf:

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

required:

- eecId

ECSServProvResp:

description: ECS service provisioning response information.

type: object

properties:

ednCnfgInfo:

type: array

items:

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

minItems: 1

description: List of EDN configuration information.

required:

- ednCnfgInfo

ECSServProvSubscription:

description: Represents an individual service provisioning subscription resource.

type: object

properties:

eecId:

type: string

description: Represents a unique identifier of the EEC.

ueId:

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

acProfs:

type: array

items:

$ref: 'TS24558\_Eees\_EECRegistration.yaml#/components/schemas/ACProfile'

description: Information about services the EEC wants to connect to.

expTime:

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

eecSvcContSupp:

type: array

items:

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

description: >

Indicates if the EEC supports service continuity or not, also indicates which

ACR scenarios are supported by the EEC.

connInfo:

type: array

items:

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

description: List of connectivity information for the UE.

notificationDestination:

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

requestTestNotification:

type: boolean

description: >

Set to true by Subscriber to request the ECS 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:

- eecId

ServProvNotification:

description: Represents notification information of a service provisioning Event.

type: object

properties:

subId:

type: string

description: >

Identifier of the individual service provisioning subscription for which the service

provisioning notification is delivered.

ednCnfgInfo:

type: array

items:

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

minItems: 1

description: List of EDN configuration information.

required:

- subId

- ednCnfgInfo

ConnectivityInfo:

description: Represents the connectivity information for the UE.

type: object

properties:

plmnId:

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

ssId:

type: string

description: Identifies the SSID of the access point to which the UE is attached.

EDNConfigInfo:

description: Represents the EDN information.

type: object

properties:

ednConInfo:

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

eess:

type: array

items:

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

minItems: 1

description: Contains the list of EESs of the EDN.

lifeTime:

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

required:

- ednConInfo

- eess

EDNConInfo:

description: Represents an EDN connection information .

type: object

properties:

dnn:

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

snssai:

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

ednTopoSrvArea:

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

EESInfo:

description: Represents EES information.

type: object

properties:

eesId:

type: string

description: Identity of the EES

endPt:

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

easIds:

type: array

items:

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

description: Application identities of the Edge Application Servers registered with the EES.

ecspInfo:

type: string

description: Represents an ECSP Information.

svcArea:

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

dnais:

type: array

items:

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

description: Represents list of Data network access identifier.

eesSvcContSupp:

type: array

items:

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

description: >

Indicates if the EES supports service continuity or not, also indicates which ACR

scenarios are supported by the EES.

eecRegConf:

type: boolean

description: >

Indicates whether the EEC is required to register on the EES to use edge services

or not.

required:

- eesId

- eecRegConf

ECSServProvSubscriptionPatch:

description: Represents an individual service provisioning subscription resource.

type: object

properties:

acProfs:

type: array

items:

$ref: 'TS24558\_Eees\_EECRegistration.yaml#/components/schemas/ACProfile'

description: Information about services the EEC wants to connect to.

expTime:

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

eecSvcContSupp:

type: array

items:

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

description: >

Indicates if the EEC supports service continuity or not, also indicates which ACR

scenarios are supported by the EEC.

connInfo:

type: array

items:

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

description: List of connectivity information for the UE.

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