**3GPP TSG-CT WG1 Meeting #137-eC1-22xxxx**

**E-Meeting, 18th – 26th August 2022**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **24.558** | **CR** | **0007** | **rev** | **-** | **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** |

|  |
| --- |
|  |
| ***Title:***  | Correction to the Definition of type DiscoveredEas  |
|  |  |
| ***Source to WG:*** | InterDigital Inc., Huawei |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | EDGEAPP |  | ***Date:*** | 2022-08-11 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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 specified in 23.558, Table 8.5.3.3-1: EAS discovery response, the EasDiscoveryResp contains a list of DiscoveredEas, and each DiscoveredEAS should contain a single EASProfile.In 24.558, Table 6.3.5.2.3-1: Definition of type EasDiscoveryResp, contains a list of EAS discovery information, which is correct. On the other hand the DiscoveredEas should contain a single EASProfile, but in the Table 6.3.5.2.8-1: Definition of type DiscoveredEas, cardinality says 1, however description mentions a list. Similarly, in the Table 6.4.5.2.3-1 easId cardinality says 1, where as in the description it says “The identifier of EASs” which should be “The identifier of EAS”.Further the yaml representation defines DiscoveredEas containing an array of EASProfiles which is incorrect.This CR proposes correction to the definition of type DiscoveredEas table and a correction to the corresponding yaml representation. |
|  |  |
| ***Summary of change:*** | DiscoveredEas should contain only a single EASProfile, correction is proposed to align this. |
|  |  |
| ***Consequences if not approved:*** | Incorrect implementation. |
|  |  |
| ***Clauses affected:*** | 6.3.5.2.8, 6.4.5.2.3, A.3 |
|  |  |
|  | **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's revision history:*** |  |

\*\*\* First change \*\*\*

##### 6.3.5.2.8 Type: DiscoveredEas

Table 6.3.5.2.8-1: Definition of type DiscoveredEas

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| eas | EASProfile | M | 1 | Contains an EAS matching the discovery request filters |  |
| lifeTime | DateTime | O | 0..1 | Indicates the time duration for which the EAS information is valid and supposed to be cached in the EEC. |  |

\*\*\* 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 | string | M | 1 | The identifier of the EAS |  |
| 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' eventNOTE 2: This attribute shall be included when Event ID indicates 'ACR\_COMPLETE' eventNOTE 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 \*\*\*

# 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:

 type: string

 description: EAS 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:

 eas:

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

 lifeTime:

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

 required:

 - eas

 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:

 type: string

 eecId:

 type: string

 oneOf:

 - required: [eesId]

 - required: [easId]

 - required: [eecId]