**3GPP TSG CT WG3 Meeting #137 *C3-245424***

**Hefei, CN, 14 - 18 October, 2024 *(Revision of C3-245298)***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.558** | **CR** | **0230** | **rev** | **-** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **x** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Corrections on the Eecs\_EASInfoManagement API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NBI19 | | | | |  | ***Date:*** | | | 2024-10-05 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The following issues have been identified in the Eecs\_EASInfoManagement API:   1. The presence condition for some attribute within the CommonEASBindingPatch data type are incorrect. 2. Remove the hyperlink in the OpenAPI. 3. Additional editorial and format issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Fix the above issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.3.3.3.3.2, 9.3.6.1, 9.3.6.2.6, A.16 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | The CR introduces backward compatible corrections to the OpenAPI file for Eecs\_EASInfoManagement API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

9.3.3.3.3.2 PUT

The HTTP PUT method enables a service consumer to update an existing "Individual Common EAS Binding" resource at the ECS.

This method shall support the URI query parameters specified in the table 9.3.3.3.3.2-1.

**Table 9.3.3.3.3.2-1: URI query parameters supported by the PUT method on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 9.3.3.3.3.2-2 and the response data structures and response codes specified in table 9.3.3.3.3.2-3.

**Table 9.3.3.3.3.2-2: Data structures supported by the PUT Request Body on this resource**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Description** |
| CommonEASBinding | M | 1 | Contains the updated representation of the "Individual Common EAS Binding" resource. |

**Table 9.3.3.3.3.2-3: Data structures supported by the PUT Response Body on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Response**  **codes** | **Description** |
| CommonEASBinding | M | 1 | 200 OK | Successful case. The "Individual Common EAS Binding" resource is successfully updated and a representation of the updated resource is returned in the response body. |
| n/a |  |  | 204 No Content | Successful case. The "Individual Common EAS Binding" resource is successfully updated and no content is returned in the response body. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.  The response shall include a Location header field containing an alternative URI of the resource located in an alternative ECS.  Redirection handling is described in clause 5.2.10 of TS 29.122 [6]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection.  The response shall include a Location header field containing an alternative URI of the resource located in an alternative ECS.  Redirection handling is described in clause 5.2.10 of TS 29.122 [6]. |
| NOTE: The mandatory HTTP error status code for the HTTP PUT method listed in Table 5.2.6-1 of 3GPP TS 29.122 [6] shall also apply. | | | | |

**Table 9.3.3.3.3.2-4: Headers supported by the 307 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative ECS. |

**Table 9.3.3.3.3.2-5: Headers supported by the 308 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative ECS. |

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

9.3.6.1 General

This clause specifies the application data model supported by the API.

Table 9.3.6.1-1 specifies the data types defined for the Eecs\_EASInfoManagement API.

**Table 9.3.6.1-1: Eecs\_EASInfoManagement API specific Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Clause defined** | **Description** | **Applicability** |
| CommonEASBinding | 9.3.6.2.4 | Represents the common EAS binding information. |  |
| CommonEASBindingPatch | 9.3.6.2.6 | Represents the requested modifications to common EAS binding information | EdgeApp\_3 |
| CommonEASBindReq | 9.3.6.2.2 | Represents the common EAS binding information registration request. |  |
| CommonEASBindResp | 9.3.6.2.3 | Represents the common EAS binding information registration or retrieval response. |  |
| CommonEasBdlInfo | 9.3.6.2.5 | Represents the common EAS bundle information. | EdgeApp\_3 |
| ProblemDetailsEIMExt | 9.3.6.4.1 | Represents an extension to the ProblemDetails data structure with additional EAS Info Management related error information. |  |

Table 9.3.6.1-2 specifies data types re-used by the Eecs\_EASInfoManagement API from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Eecs\_EASInfoManagement API.

**Table 9.3.6.1-2: Eecs\_EASInfoManagement API re-used Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Reference** | **Comments** | **Applicability** |
| EDNInfo | 9.1.5.2.10 | Represent the EDN related information. |  |
| EndPoint | 8.1.5.2.5 | Represents the endpoint information. |  |
| SupportedFeatures | 3GPP TS 29.571 [8] | Represents the list of supported feature(s) and used to negotiate the applicability of the optional features. |  |

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

9.3.6.2.6 Type: CommonEASBindingPatch

**Table 9.3.6.2.6-1: Definition of type CommonEASBindingPatch**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** | **Applicability** |
| easEndpoints | array(EndPoint) | O | 1..N | Contains the endpoint(s) information of the common EAS. |  |
| assocEasEndpoints | array(EndPoint) | O | 1..N | Contains the associated EAS endpoint(s) corresponding to the requested EAS ID(s).  This attribute may be present only in a Common EAS Binding Information Storage/Retrieval response. |  |
| eesEndpoint | EndPoint | C | 0..1 | Contains the endpoint information of the common EES. Shall be provided in storage response in the POST method. |  |
| ednInfo | EDNInfo | C | 0..1 | Contains the information of EDN where the common EAS resides.  This attribute shall be present in a Common EAS Binding Information storage/update request. |  |
| commEasBdlInfo | CommEasBdlInfo | O | 0..1 | Contains information of the EAS bundle to which the common EAS belongs.  This attribute may be present only in a Common EAS Binding Information Storage request. |  |

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

A.16 Eecs\_EASInfoManagement API

openapi: 3.0.0

info:

title: EAS Information Management

version: 1.1.0-alpha.1

description: |

EAS Information Management Service.

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externalDocs:

description: >

3GPP TS 29.558 V19.0.0; Enabling Edge Applications;

Application Programming Interface (API) specification; Stage 3.

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

security:

- {}

- oAuth2ClientCredentials: []

servers:

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

variables:

apiRoot:

default: https://example.com

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

paths:

/bindings:

get:

summary: Get EAS information.

operationId: GetEASInfo

tags:

- Get EAS information

parameters:

- name: requestor-id

in: query

description: Represents the Identifier of the service consumer.

required: true

schema:

type: string

- name: app-group-id

in: query

description: Represents the Application group identifier.

required: true

schema:

type: string

- name: eas-id

in: query

description: EAS Identifier.

required: true

schema:

type: string

- name: eas-bdl-id-list

in: query

required: false

schema:

type: array

items:

type: string

minItems: 1

- name: eas-bdl-id

in: query

required: false

schema:

type: string

- name: main-eas-id

in: query

required: false

schema:

type: string

- name: supp-feats

in: query

description: Contains the list of supported feature(s).

required: false

schema:

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

responses:

'200':

description: OK. Resource representation is returned.

content:

application/json:

schema:

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

'204':

description: >

No Content. There is no Common EAS Binding Information corresponding to the received

query parameters.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'406':

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

'429':

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

'500':

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

'503':

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

default:

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

post:

summary: Request to store the Common EAS information.

operationId: StoreEasInfo

tags:

- Store EAS Information

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: >

Created. The Common EAS Binding information is successfully stored.

content:

application/json:

schema:

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

headers:

Location:

description: >

Contains the URI of the created Common EAS Binding information resource.

required: true

schema:

type: string

'400':

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

'401':

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

'403':

description: >

Forbidden. There is an existing Common EAS information stored.

content:

application/json:

schema:

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

'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'

/bindings/{bindingId}:

parameters:

- name: bindingId

in: path

description: \_Represents the identifier of the Individual Common EAS Binding resource.

required: true

schema:

type: string

get:

summary: Retrieve an Individual Common EAS Binding resource.

operationId: GetIndCommonEasBinding

tags:

- Individual Common EAS Binding (Document)

responses:

'200':

description: The requested Individual Common EAS Binding resource is returned.

content:

application/json:

schema:

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

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'406':

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

'429':

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

'500':

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

'503':

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

default:

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

put:

summary: Update an existing Individual Common EAS Binding resource.

operationId: UpdateCommonEasBinding

tags:

- Individual Common EAS Binding (Document)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK. The Individual Common EAS Binding Instance is successfully updated and a

representation of the updated resource is returned in the response body.

content:

application/json:

schema:

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

'204':

description: >

No Content. The Individual Common EAS Binding Instance is successfully

updated and no content is returned in the response body

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'411':

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

'413':

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

'415':

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

'429':

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

'500':

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

'503':

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

default:

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

patch:

summary: Request the modification of an existing Individual Common EAS Binding resource.

operationId: ModifyIndCommonEasBinding

tags:

- Individual Common EAS Binding (Document)

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

OK. The Individual Common EAS Binding resource is successfully modified

and a representation of the updated resource shall be returned in the response body.

content:

application/json:

schema:

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

'204':

description: >

No Content. The Individual Common EAS Binding resource is successfully

modified and no content is returned in the response body.

'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'

delete:

summary: Delete an existing Individual Common EAS Binding resource.

operationId: DeleteEasInfo

tags:

- Individual Common EAS Binding (Document)

responses:

'204':

description: >

No Content. The Individual Common EAS Binding resource is successfully deleted.

'307':

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

'308':

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

'400':

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

'401':

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

'403':

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

'404':

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

'429':

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

'500':

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

'503':

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

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

CommonEASBindReq:

description: >

Represents the information elements for the Common EAS information

type: object

properties:

requestorId:

type: string

binding:

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

suppFeat:

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

required:

- requestorId

- binding

CommonEASBindResp:

description: >

Represents the response information elements for the Common EAS information.

type: object

properties:

binding:

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

suppFeat:

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

required:

- binding

CommonEASBinding:

description: Represents the common EAS Binding information.

type: object

properties:

appGroupId:

type: string

easId:

type: string

easEndpoints:

type: array

items:

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

minItems: 1

assocEasEndpoints:

type: array

items:

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

minItems: 1

eesEndpoint:

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

ednInfo:

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

commEasBdlInfo:

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

required:

- appGroupId

- easId

- easEndpoints

CommEasBdlInfo:

description: Represents the common EAS bundle information.

type: object

properties:

easIdsList:

type: array

items:

type: string

minItems: 1

easEndpoints:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the list of the endpoint(s) of the EAS(s) constituting the EAS bundle where the

common EAS resides.

The key of the map shall be set to the identifier or the EAS (among the ones provided

within the "easIdsList" attribute) for which the endpoint information provided in the

map value is related..

mainEasId:

type: string

bdlId:

type: string

required:

- easIdsList

- easEndpoints

not:

required: [mainEasId, bdlId]

CommonEASBindingPatch:

description: Represents the requested modification to the common EAS Binding information.

type: object

properties:

easEndpoints:

type: array

items:

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

minItems: 1

assocEasEndpoints:

type: array

items:

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

minItems: 1

eesEndpoint:

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

ednInfo:

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

commEasBdlInfo:

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

ProblemDetailsEIMExt:

description: >

Extends ProblemDetails to also include existing common EAS binding information for the

application group.

allOf:

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

- $ref: '#/components/schemas/CommonEASBinding'

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