**3GPP TSG-CT WG1 Meeting #137-eC1-224659**

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.558** | **CR** | **0002** | **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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Unique identification in ACR procedures | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung, Huawei | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EDGEAPP | | | | |  | ***Date:*** | | | 2022-08-05 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | Currently, the EEC cannot uniquely identify the related ACR if multiple ACRs are requested; and therefore, in case of simultaneous ongoing ACRs, the receiver of an ACR notification, e.g., the ACR complete notification, or target information notification, cannot distinguish the corresponding ACR. This is addressed by SA6 contribution S6-220383 and similar changes needs to be addressed in CT1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | To complete the specification, T-EAS endpoint information is added to ACRInfoNotification information elelement defined in clause 6.4.5.2.3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Identification of ACR is not specified and not aligned with stage-2 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

##### 6.4.5.2.3 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 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. |  |
| acrStatus (NOTE 2) | ACRCompleteEventInfo | C | 0..1 | Details of a completed ACR and its result. |  |
| 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.X Type: ACRCompleteEventInfo

Table 6.4.5.2.X-1: ACRCompleteEventInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| acrRes | boolean | M | 1 | Indicates whether the ACR is successful or failure |  |
| tEasEndpoint | EndPoint | M | 1 | Contains the endpoint address of the T-EAS to which an ACR has been performed. |  |

\* \* \* 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:

type: string

minItems: 1

description: The list of identifier 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:

type: string

description: Identifier of the EAS.

eventId:

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

trgtInfo:

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

acrStatus:

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

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:

type: string

minItems: 1

description: The list of identifier 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'

ACRCompleteEventInfo:

description: Indicates the completed ACR result and target EAS endpoint info.

type: object

properties:

acrRes:

type: boolean

description: Indicates whether the ACR is successful or failure.

tEasEndpoint:

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

required:

- acrRes

- tEasEndpoint

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