**3GPP TSG-CT WG3 Meeting #137 *C3-245452***

**Hefei, CN, 14 – 18 Oct, 2024 (Revision of C3-245351)**

|  |
| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **29.558** | **CR** | **0236** | **rev** | **1** | **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:***  | Add Application Group Id in the Eees\_ACRManagementEvent API |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | EDGEAPP\_Ph3 |  | ***Date:*** | 2024-09-16 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | TS 23.558 implemented the approved CR S6-243502 clarified that the application group Id maybe present in the ACR management event subscription request for ACR monitoring and ACR facilitation. Stage 3 need to support such function as well. In addition, it also clarified the EAS endpoint is also applicable as the common T-EAS endpoint and therefore, such clarification is needed as well. |
|  |  |
| ***Summary of change:*** | Update the ACR management event subscribe request to support the application group ID.Add description for supporting common T-EAS endpoint for EdgeApp\_3 feature. |
|  |  |
| ***Consequences if not approved:*** | Not supporting stage 2 requirements on adding application group Id in ACR management event subscription. |
|  |  |
| ***Clauses affected:*** | 8.6.5.2.3, 8.6.7, A.7 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** | This CR introduces backwards compatible feature in the OpenAPI of Eees\_ACRManagementEvent API. |
|  |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

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

##### 8.6.5.2.3 Type: AcrMgntEventSubsc

Table 8.6.5.2.3-1: Definition of type AcrMgntEventSubsc

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| event | AcrMgntEvent | M | 1 | Indicates the subscribed ACR management event. |  |
| eventFilter | AcrMgntEventFilter | O | 0..1 | Represents the event filter for the subscribed ACR management event.This attribute may be provided only if the "event" attribute is set to "ACR\_MONITORING". |  |
| evtReq | ReportingInformation | O | 0..1 | Indicates the event reporting requirements (e.g. reporting periodicity, immediate reporting indication, etc).(NOTE 1, NOTE 2) |  |
| tgtUeId | TargetUeIdentification | C | 0..1 | Contains the UE identification information.This attribute shall be provided only if the "event" attribute is set to either "UP\_PATH\_CHG", "OUT\_OF\_SERVICE\_AREA" (if the "EdgeApp\_3" feature is supported), "ACR\_MONITORING" or "ACR\_FACILITATION". |  |
| appGrpId | string | O |  | Contains the targeted application group identifier.This attribute may be present only when the "event" attribute is set to either "ACR\_MONITORING" or "ACR\_FACILITATION". | EdgeApp\_3 |
| dnaiChgType | DnaiChangeType | O | 0..1 | Identifies a type of notification regarding UP path management event.This attribute may be provided only if the "event" attribute is set to "UP\_PATH\_CHG". |  |
| easAckInd | boolean | O | 0..1 | Identifies whether EAS acknowledgement of UP path change event notifications is to be expected.Set to "true" if the EAS acknowledgement is expected. Set to "false" if the EAS acknowledgement is not expected.Default value is "false".This attribute may be provided only if the "event" attribute is set to "UP\_PATH\_CHG". |  |
| easChars | array(EasCharacteristics) | O | 1..N | Represents a list of EAS characteristics.This attribute may be provided only if the "event" attribute is set to either "ACR\_MONITORING" or "ACR\_FACILITATION". |  |
| trafFilterInfo | TrafficFilterInfo | O | 0..1 | Represents the traffic filter information.This attribute may be present only if the "event" attribute is set to "UP\_PATH\_CHG", "ACR\_MONITORING" and/or "ACR\_FACILITATION". | EdgeApp\_2 |
| servContPlanInd | boolean | O | 0..1 | Contains the service continuity planning indication (i.e., whether or not the EES shall monitor whether the UE(s) enter the predicted location).- When set to "true", it indicates that service continuity planning is required.- When set to "false", it indicates that service continuity planning is not required.- The default value when this attribute is omitted is false.This attribute may be present only when the "event" attribute is set to "ACR\_MONITORING" or "ACR\_FACILITATION". | EdgeApp\_2 |
| easAckSvcCont | boolean | O | 0..1 | Indicates Whether the EAS will provide an acknowledgement as a response to the notification of ACR management notification related to service continuity planning.- When set to "true", it indicates that the EAS acknowledgement is expected.- When set to "false", it indicates the EAS acknowledgement is not expected.- The default value is "false", when this attribute is omitted.This attribute may be present only if the "event" attribute is set to "ACR\_MONITORING" or "ACR\_FACILITATION". | EdgeApp\_2 |
| NOTE 1: The "evtReq" takes precedence over the "evtReq" attribute of the AcrMgntEventsSubscription data structure when both are present.NOTE 2: This attribute shall not be present when the "event" attribute is set to "ACT\_START\_STOP" or "ACR\_SELECTION". |

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

### 8.6.7 Feature negotiation

General feature negotiation procedures are defined in clause 7.8. Table 8.6.7-1 lists the supported features for Eees\_ACRManagementEvent API.

Table 8.6.7-1: Supported Features

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
| 1 | Notification\_test\_event | Testing of notification connection is supported according to clause 7.6. |
| 2 | Notification\_websocket | The delivery of notifications over Websocket is supported according to clause 7.6. This feature requires that the Notification\_test\_event feature is also supported. |
| 3 | EdgeApp\_2 | This feature indicates the support of the enhancements to the Edge Applications. Within this feature the following enhacements are covered:- Support of the "ACR Selection" event reporting.- Support of additional ACT Start/Stop event related information.- Support of the service continuity planning support indication.- Support of the EAS acknowledgement for service continuity planning indication.- Support of EAS bundle information reporting.- Support of the Edge UE ID as a possible UE ID. |
| 4 | EdgeApp\_3 | This feature indicates the support of the enhancements to the Edge Applications.Within this feature the following enhancements are covered:- Support of the "OUT\_OF\_SERVICE\_AREA" event reporting.- Support of the reporting of the list of UE IDs of an application group.- Support of the common EAS relocation. |

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

# A.7 Eees\_ACRManagementEvent API

openapi: 3.0.0

info:

 title: EES ACR Management Event\_API

 description: |

 API for EES ACR Management Event.

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 version: 1.2.0-alpha.1

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}/eees-acrmgntevent/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /subscriptions:

 post:

 summary: Creates a new Individual ACR Management Events Subscription

 operationId: CreateACRMngEventSubscr

 tags:

 - ACR Management Events Subscriptions (Collection)

 description: Create an Individual ACR Management Event Subscription resource.

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 callbacks:

 ACRManagementEventsNotification:

 '{$request.body#/notificationDestination}':

 post:

 requestBody: # contents of the callback message

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK (The notification is received successfully)

 content:

 application/json:

 schema:

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

 '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'

 UPPathChangeAvailabilityNotif:

 '{$request.body#/notificationDestination}/report-availability':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content. The notification is successful 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'

 responses:

 '201':

 description: Created (Successful creation)

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 '204':

 description: >

 Successful case. The resource has been successfully created and no

 additional content is to be sent in the response message.

 '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'

 get:

 summary: Read all ACR Management Events Subscriptions

 operationId: GetACRMngEventSubscrs

 tags:

 - ACR Management Events Subscriptions (Collection)

 description: Retrieve all the ACR Management Events Subscriptions information.

 parameters:

 - name: supp-feat

 in: query

 description: Features supported by the service consumer.

 required: false

 schema:

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

 responses:

 '200':

 description: OK (Successful get all of the active subscriptions)

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 1

 description: All the active ACR management events subscriptions

 '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'

 /subscriptions/{subscriptionId}:

 get:

 summary: Read an Individual ACR Management Events Subscription

 operationId: GetIndACRMngEventSubscr

 tags:

 - Individual ACR Management Events Subscription (Document)

 description: Retrieve an Individual ACR Management Events Subscription.

 parameters:

 - name: subscriptionId

 in: path

 description: Subscription Id.

 required: true

 schema:

 type: string

 - name: supp-feat

 in: query

 description: Features supported by the service consumer.

 required: false

 schema:

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

 responses:

 '200':

 description: OK (Successful get the active subscription).

 content:

 application/json:

 schema:

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

 '307':

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

 '308':

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

 '400':

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

 '401':

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

 '403':

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

 '404':

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

 '406':

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

 '429':

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

 '500':

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

 '503':

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

 default:

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

 put:

 summary: Update an Individual ACR Management Events Subscription

 operationId: UpdateIndACRMngEventSubscr

 tags:

 - Individual ACR Management Events Subscription (Document)

 description: Fully replace an existing Individual ACR Management Events Subscription.

 parameters:

 - name: subscriptionId

 in: path

 description: Subscription Id.

 required: true

 schema:

 type: string

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK (Successful get the active subscription).

 content:

 application/json:

 schema:

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

 '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'

 patch:

 summary: Modify an Individual ACR Management Events Subscription

 operationId: ModifyIndACRMngEventSubscr

 tags:

 - Individual ACR Management Events Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: Subscription Id.

 required: true

 schema:

 type: string

 requestBody:

 description: Partial update an existing Individual ACR Management Events Subscription.

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: >

 The Individual ACR Management Events Subscription is successfully modified

 and the updated subscription information is returned in the response.

 content:

 application/json:

 schema:

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

 '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'

 delete:

 summary: Delete an Individual ACR Management Events Subscription

 operationId: DeleteIndACRMngEventSubscr

 tags:

 - Individual ACR Management Events Subscription (Document)

 description: Delete an existing Individual ACR Management Events Subscription.

 parameters:

 - name: subscriptionId

 in: path

 description: Subscription Id.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: The individual subscription is deleted.

 '307':

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

 '308':

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

 '400':

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

 '401':

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

 '403':

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

 '404':

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

 '429':

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

 '500':

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

 '503':

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

 default:

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

# Components

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 AcrMgntEventsSubscription:

 type: object

 description: Represents an Individual ACR Management Events Subscription.

 properties:

 self:

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

 easId:

 type: string

 description: Identifier of the service consumer.

 eventSubscs:

 type: array

 items:

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

 minItems: 1

 description: The subscribed ACR management events.

 evtReq:

 $ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/ReportingInformation'

 notificationDestination:

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

 eventReports:

 type: array

 items:

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

 minItems: 1

 description: The ACR management event report(s).

 availabilityInfo:

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

 failEventReports:

 type: array

 items:

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

 minItems: 1

 description: Failure event reports.

 requestTestNotification:

 type: boolean

 description: >

 Set to true to request the EES 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:

 - easId

 - eventSubscs

 - notificationDestination

 AcrMgntEventSubsc:

 type: object

 description: Represents an ACR Management Event Subscription.

 properties:

 event:

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

 eventFilter:

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

 evtReq:

 $ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/ReportingInformation'

 tgtUeId:

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

 appGrpId:

 type: string

 dnaiChgType:

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

 easAckInd:

 type: boolean

 description: >

 Identifies whether EAS acknowledgement of UP path change event notifications is to be

 expected. Set to "true" if the EAS acknowledgement is expected. Set to "false" if

 the EAS acknowledgement is not expected. Default value is "false" if ommited.

 This attribute may be provided only if the "event" attribute is set to "UP\_PATH\_CHG".

 easChars:

 type: array

 items:

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

 minItems: 1

 description: A list of EAS characteristics.

 trafFilterInfo:

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

 servContPlanInd:

 type: boolean

 description: >

 Represents the service continuity planning indication (i.e., whether or not the EES

 shall monitor whether the UE(s) enter the predicted location).

 When set to true, it indicates that service continuity planning is required.

 When set to false, it indicates that Service continuity planning is not required.

 The default value when this attribute is omitted is false.

 easAckSvcCont:

 type: boolean

 description: >

 Indicates that the EAS will provide an acknowledgement as a response to the notification

 of ACR management notification related to service continuity planning. Set to "true" if

 the EAS acknowledgement is expected. Default value is "false". This attribute may be

 provided only if the "event" attribute is set to "ACR\_MONITORING" and/or

 "ACR\_FACILITATION".

 required:

 - event

 AcrMgntEventsSubscriptionPatch:

 type: object

 description: >

 Represents a modification request of Individual ACR Management Events Subscription.

 properties:

 eventSubscs:

 type: array

 items:

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

 minItems: 1

 description: The subscribed ACR management events.

 evtReq:

 $ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/ReportingInformation'

 notificationDestination:

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

 AcrMgntEventsNotification:

 type: object

 description: Represents the ACR management events notification.

 properties:

 subpId:

 type: string

 description: >

 String identifying the Individual ACR Management Events Subscription

 for which the notification is delivered.

 eventReports:

 type: array

 items:

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

 minItems: 1

 description: A list of ACR management event reports.

 required:

 - subpId

 - eventReports

 AcrMgntEventReport:

 type: object

 description: Represents an ACR management event report.

 properties:

 event:

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

 timeStamp:

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

 upPathChgInfo:

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

 easEndPoint:

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

 actStatus:

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

 acrParams:

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

 acId:

 type: string

 ueId:

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

 selACRScen:

 type: array

 items:

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

 minItems: 1

 easInBdlInfoList:

 type: array

 items:

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

 minItems: 1

 description: Represents the list of EAS in a bundle related information.

 servContPlanInd:

 type: boolean

 description: >

 Represents the service continuity planning indication (i.e., whether or not the EES will

 monitor whether the UE(s) enter the predicted location).

 When set to true, it indicates that service continuity planning will be performed.

 When set to false, it indicates that Service continuity planning will not be performed.

 The default value when this attribute is omitted is false.

 inOutOfServArea:

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

 ueIds:

 type: array

 items:

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

 minItems: 1

 required:

 - event

 ACRParameters:

 type: object

 description: Represents the ACR parameters.

 properties:

 predictExpTime:

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

 FailureAcrMgntEventInfo:

 type: object

 description: Represents a failure ACR management event.

 properties:

 event:

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

 failureCode:

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

 required:

 - event

 - failureCode

 TargetUeIdentification:

 description: Identifies the target UE information.

 type: object

 properties:

 gpsi:

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

 edgeUeId:

 type: string

 intGrpId:

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

 extGrpId:

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

 ueIpAddr:

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

 oneOf:

 - required: [gpsi]

 - required: [edgeUeId]

 - required: [intGrpId]

 - required: [extGrpId]

 - required: [ueIpAddr]

 AvailabilityNotif:

 type: object

 description: >

 Represents the availability information of user plane path management events monitoring

 via the 3GPP 5GC network.

 properties:

 availabilityStatus:

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

 required:

 - availabilityStatus

 UpPathChangeInfo:

 description: Represents user plane path change information.

 type: object

 properties:

 ueId:

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

 dnaiChgType:

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

 sourceTrafficRoute:

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

 targetTrafficRoute:

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

 sourceDnai:

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

 targetDnai:

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

 srcUeIpv4Addr:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

 srcUeIpv6Prefix:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

 tgtUeIpv4Addr:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

 tgtUeIpv6Prefix:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

 required:

 - ueId

 - dnaiChgType

 IndUeIdentification:

 description: Represents identification information of a UE.

 type: object

 properties:

 gpsi:

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

 externalId:

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

 ueIpAddr:

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

 oneOf:

 - required: [gpsi]

 - required: [externalId]

 - required: [ueIpAddr]

 TrafficFilterInfo:

 description: Represents the Traffic Filter Information.

 type: object

 properties:

 ipFlows:

 type: array

 items:

 $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/FlowDescription'

 minItems: 1

 description: Contains the flow description for the Uplink and/or Downlink IP flows.

 uris:

 type: array

 items:

 type: string

 minItems: 1

 description: Indicates URI(s) matching criteria.

 domainNames:

 type: array

 items:

 type: string

 minItems: 1

 description: Indicates Domain Name matching criteria.

 dnProtocol:

 $ref: 'TS29122\_PfdManagement.yaml#/components/schemas/DomainNameProtocol'

 anyOf:

 - required: [ipFlows]

 - required: [uris]

 - required: [domainNames]

 SelectedACRScenarios:

 type: object

 description: >

 Represents the selected ACR scenario(s) applicable for a given combination of AC and UE.

 properties:

 acrList:

 type: array

 items:

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

 minItems: 0

 acId:

 type: string

 ueId:

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

 required:

 - acrList

 - acId

 - ueId

 EasAckInformation:

 type: object

 description: Represents the EAS acknowledgement information.

 properties:

 resCode:

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

 required:

 - resCode

 EasInBundleInfo:

 type: object

 description: >

 Represents EAS in a bundle information.

 properties:

 easId:

 type: string

 description: Contains the identifier of the EAS that is within an EAS bundle.

 dnais:

 type: array

 items:

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

 minItems: 1

 svcArea:

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

 required:

 - easId

#

# ENUMERATIONS DATA TYPES

#

 AcrMgntEvent:

 anyOf:

 - type: string

 enum:

 - UP\_PATH\_CHG

 - ACR\_MONITORING

 - ACR\_FACILITATION

 - ACT\_START\_STOP

 - ACR\_SELECTION

 - OUT\_OF\_SERVICE\_AREA

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the ACR Management event.

 Possible values are:

 - UP\_PATH\_CHG: Indicates that ACR Management Event is the User plane path change event.

 - ACR\_MONITORING: Indicates that ACR Management Event is the ACR monitoring event.

 - ACR\_FACILITATION: Indicates that ACR Management Event is the ACR facilitation event.

 - ACT\_START\_STOP: Indicates that ACR Management Event is the ACT start/stop event.

 - ACR\_SELECTION: Indicates that ACR Management Event is the ACR selection event.

 - OUT\_OF\_SERVICE\_AREA: Indicates that ACR Management Event is the out of service area event.

 AcrMgntEventFilter:

 anyOf:

 - type: string

 enum:

 - INTRA\_EDN\_MOBILITY

 - INTER\_EDN\_MOBILITY

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the filtering criteria for the ACR Management event.

 Possible values are:

 - INTRA\_EDN\_MOBILITY: Indicates that the ACR Management Event filter is intra-EDN mobility.

 - INTER\_EDN\_MOBILITY: Indicates that the ACR Management Event filter is inter-EDN mobility.

 ActStatus:

 anyOf:

 - type: string

 enum:

 - ACT\_START

 - ACT\_STOP

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the ACT status.

 Possible values are:

 - ACT\_START: Indicates ACT start.

 - ACT\_STOP: Indicates ACT stop.

 AcrMgntEventFailureCode:

 anyOf:

 - type: string

 enum:

 - 3GPP\_UP\_PATH\_CHANGE\_MON\_NOT\_AVAILABLE

 - 3GPP\_SERVICE\_AREA\_MON\_NOT\_AVAILABLE

 - OTHER\_REASONS

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the failure reason for the ACR Management event.

 Possible values are:

 - 3GPP\_UP\_PATH\_CHANGE\_MON\_NOT\_AVAILABLE: Indicates that the ACR Management Event

 Subscription failed because user plane path management event notifications from the 3GPP

 network is NOT available. This value is only applicable for the "UP\_PATH\_CHG",

 "ACR\_MONITORING" and "ACR\_FACILITATION" events.

 - 3GPP\_SERVICE\_AREA\_MON\_NOT\_AVAILABLE: Indicates that ACR Management Event Subscription

 failed because area of interest location monitoring from the 3GPP network is not

 available. This value is only applicable for the "OUT\_OF\_SERVICE\_AREA" event.

 - OTHER\_REASONS: Indicates that the ACR Management Event Subscription failed for other

 reasons. This value is applicable for all events.

 AvailabilityStatus:

 anyOf:

 - type: string

 enum:

 - AVAILABLE

 - NOT\_AVAILABLE

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the availability status.

 Possible values are:

 - AVAILABLE: Indicates availability.

 - NOT\_AVAILABLE: Indicates unavailability.

 ResultCode:

 anyOf:

 - type: string

 enum:

 - ACCEPTED

 - REJECTED

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the result code of ACT acceptance.

 Possible values are:

 - ACCEPTED: Indicates acceptance of the ACT.

 - REJECTED: Indicates rejection of the ACT.

 InOutArea:

 anyOf:

 - type: string

 enum:

 - MOVED\_INTO\_AREA

 - MOVED\_OUT\_OF\_AREA

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the presence status.

 Possible values are:

 - MOVED\_INTO\_AREA: Indicates that the UE moved into the service area.

 - MOVED\_OUT\_OF\_AREA: Indicates that the UE moved out of the service area.

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