**3GPP TSG-CT3 Meeting #120-e *C3-221413***

**E-Meeting, 17th – 25th February 2022 (Revision of C3-221xyz)**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.522** | **CR** | **0540** | **rev** | **-** | **Current version:** | **17.4.0** |  |
|  |
| *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 |  | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | **Formatting of description fields for TimeSyncExposure API** |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | IIoT |  | ***Date:*** | 2022-02-07 |
|  |  |  |  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | As agreed in CR 0119 (C4-220197) of 3GPP TS 29.501, the format of description fields shall be updated, e.g. the description fields shall be updated to keep the multi-line description fields.Enumerations Protocol, GmCapable, InstanceType and SubscribedEvent: lines describing possible values starting with – sign are not correctly formatted. |
|  |  |
| ***Summary of change:*** | 1. Update the description fields for TimeSyncExposure API.
2. Two spaces is deleted before – sign for numerations Protocol, GmCapable, InstanceType and SubscribedEvent.
 |
|  |  |
| ***Consequences if not approved:*** | Misalignment with TS 29.501. |
|  |  |
| ***Clauses affected:*** | A.13 |
|  |  |
|  | **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 backward compatible corrections to the OpenAPI file for TimeSyncExposure API.To TS Rapporteur: please update the description field within the info &externalDocs fields in the CR on OpenAPI update. |
|  |  |
| ***This CR's revision history:*** |  |

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

# A.13 TimeSyncExposure API

openapi: 3.0.0

info:

 title: 3gpp-time-sync-exposure

 version: 1.0.0-alpha.3

 description: |

 API for time synchronization exposure.

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externalDocs:

 description: 3GPP TS 29.522 V17.4.0; 5G System; Network Exposure Function Northbound APIs.

 url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.522/'

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/3gpp-time-sync/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /{afId}/subscriptions:

 get:

 summary: read all of the active subscriptions for the AF

 tags:

 - Time Synchronization Exposure Subscriptions

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 responses:

 '200':

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

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 0

 '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: Creates a new subscription resource

 tags:

 - Time Synchronization Exposure Subscriptions

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 requestBody:

 description: new subscription creation

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Created (Successful creation)

 content:

 application/json:

 schema:

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

 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:

 timeSyncSubsNotification:

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

 post:

 requestBody:

 description: Notification for Time Synchronization Capability for a list of UEs.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: Expected response to a successful callback processing without a 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'

 /{afId}/subscriptions/{subscriptionId}:

 get:

 summary: read an active subscription for the AF and the subscription Id

 tags:

 - Individual Time Synchronization Exposure Subscription

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 in: path

 description: Identifier of the subscription resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK (Successful get the active subscription)

 content:

 application/json:

 schema:

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

 '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: Deletes an already existing subscription

 tags:

 - Individual Time Synchronization Exposure Subscription

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 in: path

 description: Identifier of the subscription resource

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content (Successful deletion of the existing subscription)

 '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'

 /{afId}/subscriptions/{subscriptionId}/configurations:

 get:

 summary: read all of the active configurations for the AF

 tags:

 - Time Synchronization Exposure Configurations

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 description: String identifying the individual synchronization Exposure Subscription resource in the NEF

 in: path

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK (Successful get all of the active configurations for the AF)

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 0

 '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: Creates a new configuration resource

 tags:

 - Time Synchronization Exposure Configurations

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 description: >

 String identifying the individual synchronization Exposure Subscription

 resource in the NEF

 in: path

 required: true

 schema:

 type: string

 requestBody:

 description: new configuration creation

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Created (Successful creation)

 content:

 application/json:

 schema:

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

 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:

 timeSyncConfigNotification:

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

 post:

 requestBody:

 description: Notification for Time Synchronization Service status.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: Expected response to a successful callback processing without a 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'

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

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

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 $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'

 /{afId}/subscriptions/{subscriptionId}/configurations/{instanceReference}:

 get:

 summary: read an active subscription for the AF and the subscription Id

 tags:

 - Individual Time Synchronization Exposure Subscription

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 in: path

 description: Identifier of the subscription resource

 required: true

 schema:

 type: string

 - name: instanceReference

 in: path

 description: Identifier of the configuration resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK (Successful get the active subscription)

 content:

 application/json:

 schema:

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

 '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: Updates/replaces an existing configuration resource

 tags:

 - Individual Time Synchronization Exposure Configuration

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 in: path

 description: Identifier of the subscription resource

 required: true

 schema:

 type: string

 - name: instanceReference

 in: path

 description: Identifier of the configuration resource

 required: true

 schema:

 type: string

 requestBody:

 description: Parameters to update/replace the existing configuration

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK (Successful deletion of the existing configuration)

 content:

 application/json:

 schema:

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

 '204':

 description: >

 Successful case. The resource has been successfully updated and no additional

 content is to be sent in the response message.

 '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: Deletes an already existing configuration

 tags:

 - Individual Time Synchronization Exposure Configuration

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: subscriptionId

 in: path

 description: Identifier of the subscription resource

 required: true

 schema:

 type: string

 - name: instanceReference

 in: path

 description: Identifier of the configuration resource

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content (Successful deletion of the existing configuration)

 '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:

 TimeSyncExposureSubsc:

 description: >

 Contains requested parameters for the subscription to the notification

 of time synchronization capability.

 type: object

 properties:

 exterGroupId:

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

 gpsis:

 type: array

 items:

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

 minItems: 1

 description: >

 Contains a list of UE for which the time synchronization capabilities is requested.

 anyUeInd:

 type: boolean

 description: >

 Any UE indication. This IE shall be present if the event subscription

 is applicable to any UE. Default value "false" is used, if not present.

 afServiceId:

 type: string

 description: Identifies a service on behalf of which the AF is issuing the request.

 dnn:

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

 snssai:

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

 subsNotifId:

 type: string

 description: Notification Correlation ID assigned by the NF service consumer.

 subsNotifUri:

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

 subscribedEvents:

 type: array

 items:

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

 minItems: 1

 description: Subscribed events

 eventFilters:

 type: array

 items:

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

 minItems: 1

 description: >

 Contains the filter conditions to match for notifying the event(s)

 of time synchronization capabilities for a list of UE(s).

 notifMethod:

 $ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NotificationMethod'

 maxReportNbr:

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

 expiry:

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

 repPeriod:

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

 requestTestNotification:

 type: boolean

 description: >

 Set to true by the SCS/AS to request the SCEF to send a test notification

 as defined in subclause 5.2.5.3 of 3GPP TS 29.122. Set to false or omitted otherwise.

 websockNotifConfig:

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

 suppFeat:

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

 required:

 - subsNotifUri

 - subsNotifId

 TimeSyncCapability:

 description: Contains time synchronization capability.

 type: object

 properties:

 gpsis:

 type: array

 items:

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

 minItems: 1

 description: Contains a list of UEs associated with the user plane node.

 upNodeId:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 gmCapables:

 type: array

 items:

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

 ptpCapForUes:

 type: object

 additionalProperties:

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

 minProperties: 1

 description: >

 Contains the PTP capabilities supported by each of the UE(s).

 The key of the map is the gpsi.

 required:

 - upNodeId

 - ptpCapForUes

 TimeSyncExposureConfig:

 description: Contains the Time Synchronization Configuration parameters.

 type: object

 properties:

 upNodeId:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 reqPtpIns:

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

 gmEnable:

 type: boolean

 description: >

 Indicates that the AF requests 5GS to act as a grandmaster for PTP

 or gPTP if it is included and set to true.

 gmPrio:

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

 timeDom:

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

 configNotifId:

 type: string

 description: Notification Correlation ID assigned by the NF service consumer.

 configNotifUri:

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

 tempValidity:

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

 required:

 - upNodeId

 - reqPtpIns

 - timeDom

 - configNotifId

 - configNotifUri

 TimeSyncExposureSubsNotif:

 description: Contains the notification of time synchronization capability.

 type: object

 properties:

 subsNotifId:

 type: string

 description: Notification Correlation ID assigned by the NF service consumer.

 eventNotifs:

 type: array

 items:

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

 minItems: 1

 required:

 - subsNotifId

 - eventNotifs

 SubsEventNotification:

 description: Notifications about subscribed Individual Events.

 type: object

 properties:

 event:

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

 timeSyncCapas:

 type: array

 items:

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

 minItems: 1

 required:

 - event

 TimeSyncExposureConfigNotif:

 description: Contains the notification of time synchronization service state.

 type: object

 properties:

 configNotifId:

 type: string

 description: Notification Correlation ID assigned by the NF service consumer.

 stateOfConfig:

 type: string

 required:

 - configNotifId

 - stateOfConfig

 PtpCapabilitiesPerUe:

 description: Contains the supported PTP capabilities per UE.

 type: object

 properties:

 gpsi:

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

 ptpCaps:

 type: array

 items:

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

 minItems: 1

 required:

 - gpsi

 - ptpCaps

 EventFilter:

 description: >

 Contains the filter conditions to match for notifying the event(s) of time

 synchronization capabilities.

 type: object

 properties:

 instanceTypes:

 type: array

 items:

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

 minItems: 1

 transProtocols:

 type: array

 items:

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

 minItems: 1

 ptpProfiles:

 type: array

 items:

 type: string

 minItems: 1

 PtpInstance:

 description: Contains PTP instance configuration and activation requested by the AF.

 type: object

 properties:

 instanceType:

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

 protocol:

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

 ptpProfile:

 type: string

 required:

 - instanceType

 - protocol

 - ptpProfile

 Protocol:

 anyOf:

 - type: string

 enum:

 - ETH

 - IPV4

 - IPV6

 - type: string

 description: >

 This string identifies supported protocol.

 description: |

 Possible values are:

 - ETH: Indicates Ethernet as defined in IEEE Std 1588 [45] Annex E is supported.

 - IPV4: Indicates IPv4 as defined in IEEE Std 1588 [45] Annex C is supported.

 - IPV6: Indicates IPv6 as defined in IEEE Std 1588 [45] Annex D is supported.

 GmCapable:

 anyOf:

 - type: string

 enum:

 - GPTP

 - PTP

 - type: string

 description: >

 This string identifies supported grandmaster.

 description: |

 Possible values are:

 - GPTP: gPTP grandmaster is supported.

 - PTP: PTP grandmaste is supported.

 InstanceType:

 anyOf:

 - type: string

 enum:

 - BOUNDARY\_CLOCK

 - E2E\_TRANS\_CLOCK

 - P2P\_TRANS\_CLOCK

 - P2P\_RELAY\_INSTANCE

 - type: string

 description: >

 This string identifies supported PTP instance type.

 description: |

 Possible values are:

 - BOUNDARY\_CLOCK: Indicates Boundary Clock as defined in IEEE Std 1588.

 - E2E\_TRANS\_CLOCK: Indicates End-to-End Transparent Clock as defined in IEEE Std 1588.

 - P2P\_TRANS\_CLOCK: Indicates Peer-to-Peer Transparent Clock as defined in IEEE Std 1588.

 - P2P\_RELAY\_INSTANCE: Indicates PTP Relay instance as defined in IEEE Std 802.1AS.

 SubscribedEvent:

 anyOf:

 - type: string

 enum:

 - AVAILABILITY\_FOR\_TIME\_SYNC\_SERVICE

 - type: string

 description: >

 This string identifies supported event.

 description: |

 Possible values are:

 - AVAILABILITY\_FOR\_TIME\_SYNC\_SERVICE: The UE is availability for time synchronization service.

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