**3GPP TSG- Meeting #e *130***

**e-meeting, –**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **65** | **CR** |  **0061** | **rev** |  | **Current version:** |  |  |
|  |
| *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:***  |  |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** | 2023-04-07 |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** |  |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | 29.501 clause 5.3.14 requires modelling attribute presence conditions in the OpenAPI, including mutual exclusivity of attributes, for example:- JSON object defining attributes "a" and "b", of type integer, where "a" and "b" can be both absent but, if one of them is present, the other shall be absent:components: schemas: ExampleType4: type: object not: required: [ a, b ] properties: a: type: integer b: type: integer1. 6.2.6.2.2 Type TscAppSessionContextData, 6.2.6.2.4 Type TscAppSessionContextUpdateData: either the "ethFlowInfo" or the "enEthFlowInfo" shall be provided, but not both simultaneously.
 |
|  |  |
| ***Summary of change:*** | Modelled the mutual exclusivity of attributes listed above in the OpenAPI. |
|  |  |
| ***Consequences if not approved:*** | Incomplete OpenAPI file. |
|  |  |
| ***Clauses affected:*** | A.3 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** | This CR introduces a backwards compatible correction in the Open API – 1. Ntsctsf\_QoSandTSCAssitance API
2. Ntsctsf\_ASTI API
 |
|  |  |
| ***This CR's revision history:*** |  |

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

# A.3 Ntsctsf\_QoSandTSCAssistance API

openapi: 3.0.0

info:

 title: Ntsctsf\_QoSandTSCAssistance Service API

 version: 1.1.0-alpha.2

 description: |

 TSCTSF QoS and TSC Assistance Service.

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externalDocs:

 description: >

 3GPP TS 29.565 V18.1.0; 5G System; Time Sensitive Communication and Time Synchronization function

 Services; Stage 3.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.565/'

servers:

 - url: '{apiRoot}/ntsctsf-qos-tscai/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501

security:

 - {}

 - oAuth2ClientCredentials:

 - ntsctsf-qos-tscai

paths:

 /tsc-app-sessions:

 post:

 summary: Creates a new Individual TSC Application Session Context resource

 operationId: PostTSCAppSessions

 tags:

 - TSC Application Sessions (Collection)

 requestBody:

 description: Contains the information for the creation the resource.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Successful creation of the resource.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: >

 Contains the URI of the created individual TSC application session context resource,

 according to the structure

 {apiRoot}/ntsctsf-qos-tscai/v1/tsc-app-sessions/{appSessionId} or the URI of the

 created events subscription sub-resource, according to the structure

 {apiRoot}/ntsctsf-qos-tscai/v1/tsc-app-sessions/{appSessionId}/events-subscription}

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 description: Forbidden

 content:

 application/problem+json:

 schema:

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

 headers:

 Retry-After:

 description: >

 Indicates the time the AF has to wait before making a new request. It can be a

 non-negative integer (decimal number) indicating the number of seconds the AF

 has to wait before making a new request or an HTTP-date after which the AF can

 retry a new request.

 schema:

 type: string

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 terminationRequest:

 '{$request.body#/notifUri}/terminate':

 post:

 requestBody:

 description: >

 Request of the termination of the Individual TSC Application Session Context

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The receipt of the notification is acknowledged.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 eventNotification:

 '{$request.body#/evSubsc/notifUri}/notify':

 post:

 requestBody:

 description: Notification of an event occurrence in the TSCTSF.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The receipt of the notification is acknowledged.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /tsc-app-sessions/{appSessionId}:

 get:

 summary: Reads an existing Individual TSC Application Session Context

 operationId: GetTSCAppSession

 tags:

 - Individual TSC Application Session Context (Document)

 parameters:

 - name: appSessionId

 description: String identifying the resource.

 in: path

 required: true

 schema:

 type: string

 responses:

 '200':

 description: A representation of the resource is returned.

 content:

 application/json:

 schema:

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

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 patch:

 summary: Modifies an existing Individual TSC Application Session Context

 operationId: ModAppSession

 tags:

 - Individual TSC Application Session Context (Document)

 parameters:

 - name: appSessionId

 description: String identifying the resource.

 in: path

 required: true

 schema:

 type: string

 requestBody:

 description: Modification of the resource.

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: >

 successful modification of the resource and a representation of that resource is

 returned.

 content:

 application/json:

 schema:

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

 '204':

 description: The successful modification.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 description: Forbidden

 content:

 application/problem+json:

 schema:

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

 headers:

 Retry-After:

 description: >

 Indicates the time the AF has to wait before making a new request. It can be a

 non-negative integer (decimal number) indicating the number of seconds the AF

 has to wait before making a new request or an HTTP-date after which the AF can

 retry a new request.

 schema:

 type: string

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 eventNotification:

 '{$request.body#/evSubsc/notifUri}/notify':

 post:

 requestBody:

 description: Notification of an event occurrence in the TSCTSF.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The receipt of the notification is acknowledged.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /tsc-app-sessions/{appSessionId}/delete:

 post:

 summary: Deletes an existing Individual TSC Application Session Context

 operationId: DeleteTSCAppSession

 tags:

 - Individual TSC Application Session Context (Document)

 parameters:

 - name: appSessionId

 description: String identifying the Individual TSC Application Session Context resource.

 in: path

 required: true

 schema:

 type: string

 requestBody:

 description: >

 Deletion of the Individual TSC Application Session Context resource, request notification.

 required: false

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: The deletion of the resource is confirmed and a resource is returned

 content:

 application/json:

 schema:

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

 '204':

 description: The deletion is confirmed without returning additional data.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /tsc-app-sessions/{appSessionId}/events-subscription:

 put:

 summary: Creates or modifies an Events Subscription subresource

 operationId: putEventsSubsc

 tags:

 - Events Subscription (Document)

 parameters:

 - name: appSessionId

 description: String identifying the Events Subscription resource

 in: path

 required: true

 schema:

 type: string

 requestBody:

 description: Creation or modification of an Events Subscription resource.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: >

 The creation of the Events Subscription resource is confirmed and its representation is

 returned.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: >

 Contains the URI of the created Events Subscription resource,

 according to the structure

 {apiRoot}/ntsctsf-qos-tscai/v1/tsc-app-sessions/{appSessionId}/events-subscription}

 required: true

 schema:

 type: string

 '200':

 description: >

 The modification of the Events Subscription resource is confirmed and its representation

 is returned.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 The modification of the Events Subscription subresource is confirmed without returning

 additional data.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 eventNotification:

 '{$request.body#/notifUri}/notify':

 post:

 requestBody:

 description: >

 Contains the information for the notification of an event occurrence in the TSCTSF.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The receipt of the notification is acknowledged.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Deletes the Events Subscription subresource.

 operationId: DeleteEventsSubsc

 tags:

 - Events Subscription (Document)

 parameters:

 - name: appSessionId

 description: String identifying the Individual TSC Application Session Context resource

 in: path

 required: true

 schema:

 type: string

 responses:

 '204':

 description: >

 The deletion of the of the Events Subscription sub-resource is confirmed without returning

 additional data.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{nrfApiRoot}/oauth2/token'

 scopes:

 ntsctsf-qos-tscai: Access to the Ntsctsf\_QoSandTSCAssistance API

 schemas:

 TscAppSessionContextData:

 description: Represents an Individual TSC Application Session Context resource.

 type: object

 required:

 - notifUri

 - afId

 - qosReference

 oneOf:

 - required: [ueIpAddr]

 - required: [ueMac]

 not:

 required: [ethFlowInfo, enEthFlowInfo]

 properties:

 ueIpAddr:

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

 ipDomain:

 type: string

 description: The IPv4 address domain identifier.

 ueMac:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

 dnn:

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

 snssai:

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

 notifUri:

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

 appId:

 type: string

 description: Identifies the Application Identifier.

 ethFlowInfo:

 type: array

 items:

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

 minItems: 1

 enEthFlowInfo:

 type: array

 items:

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

 minItems: 1

 description: >

 Identifies the Ethernet flows which require QoS. Each Ethernet flow consists of a flow

 identifer and the corresponding UL and/or DL flows.

 flowInfo:

 type: array

 items:

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

 minItems: 1

 afId:

 type: string

 description: Identifies the AF identifier.

 tscQosReq:

 $ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/TscQosRequirement'

 qosReference:

 type: string

 description: Identifies a pre-defined QoS information.

 altQosReferences:

 type: array

 items:

 type: string

 minItems: 1

 description: Identifies an ordered list of pre-defined QoS information.

 altQosReqs:

 type: array

 items:

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

 minItems: 1

 description: >

 Identifies an ordered list of alternative service requirements that include individual

 QoS parameter sets. The lower the index of the array for a given entry, the higher the

 priority.

 aspId:

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

 sponId:

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

 sponStatus:

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

 evSubsc:

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

 suppFeat:

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

 TscAppSessionContextUpdateData:

 description: >

 Describes the authorization data of an Individual TSC Application Session Context created by

 the PCF.

 type: object

 properties:

 notifUri:

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

 appId:

 type: string

 description: Identifies the Application Identifier.

 ethFlowInfo:

 type: array

 items:

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

 minItems: 1

 enEthFlowInfo:

 type: array

 items:

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

 minItems: 1

 description: >

 Identifies the Ethernet flows which require QoS. Each Ethernet flow consists of a flow

 identifer and the corresponding UL and/or DL flows.

 flowInfo:

 type: array

 items:

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

 minItems: 1

 tscQosReq:

 $ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/TscQosRequirementRm'

 qosReference:

 type: string

 description: Identifies a pre-defined QoS information.

 altQosReferences:

 type: array

 items:

 type: string

 minItems: 1

 description: Identifies an ordered list of pre-defined QoS information.

 altQosReqs:

 type: array

 items:

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

 minItems: 1

 description: >

 Identifies an ordered list of alternative service requirements that include individual

 QoS parameter sets. The lower the index of the array for a given entry, the higher the

 priority.

 aspId:

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

 sponId:

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

 sponStatus:

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

 evSubsc:

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

 not:

 required: [ethFlowInfo, enEthFlowInfo]

 EventsSubscReqData:

 description: Identifies the events the application subscribes to.

 type: object

 required:

 - events

 - notifUri

 - notifCorreId

 properties:

 events:

 type: array

 items:

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

 minItems: 1

 notifUri:

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

 qosMon:

 $ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/QosMonitoringInformation'

 usgThres:

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

 notifCorreId:

 type: string

 EventsSubscReqDataRm:

 description: >

 This data type is defined in the same way as the EventsSubscReqData data type, but with the

 OpenAPI nullable property set to true.

 type: object

 required:

 - events

 properties:

 events:

 type: array

 items:

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

 minItems: 1

 notifUri:

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

 qosMon:

 $ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/QosMonitoringInformationRm'

 usgThres:

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

 notifCorreId:

 type: string

 nullable: true

 EventsNotification:

 description: Describes the notification of matched events.

 type: object

 required:

 - notifCorreId

 - events

 properties:

 notifCorreId:

 type: string

 events:

 type: array

 items:

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

 minItems: 1

 EventNotification:

 description: Describes a notification of an matched event.

 type: object

 required:

 - event

 properties:

 event:

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

 flowIds:

 type: array

 items:

 type: integer

 minItems: 1

 description: Identifies the IP flows that were sent during event subscription.

 qosMonReports:

 type: array

 items:

 $ref: 'TS29122\_AsSessionWithQoS.yaml#/components/schemas/QosMonitoringReport'

 minItems: 1

 usgRep:

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

 appliedQosRef:

 type: string

 description: >

 The currently applied alternative QoS requirement referring to an alternative QoS

 reference or a requested alternative QoS parameter set. Applicable for

 event QOS\_NOT\_GUARANTEED or SUCCESSFUL\_RESOURCES\_ALLOCATION.

 altQosNotSuppInd:

 type: boolean

 description: >

 When present and set to true it indicates that the Alternative QoS profiles are not

 supported by NG-RAN. Applicable for

 event QOS\_NOT\_GUARANTEED or SUCCESSFUL\_RESOURCES\_ALLOCATION.

 AdditionInfoTsctsfQosTscac:

 description: Describes additional error information specific for this API.

 type: object

 properties:

 acceptableServInfo:

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

#

# ENUMERATIONS DATA TYPES

#

 TscEvent:

 description: Represents an event to notify to the AF.

 anyOf:

 - type: string

 enum:

 - FAILED\_RESOURCES\_ALLOCATION

 - QOS\_MONITORING

 - QOS\_GUARANTEED

 - QOS\_NOT\_GUARANTEED

 - SUCCESSFUL\_RESOURCES\_ALLOCATION

 - USAGE\_REPORT

 - 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.

#

# ALTERNATIVE DATA TYPES OR COMBINATIONS OF DATA TYPES

#

 ProblemDetailsTsctsfQosTscac:

 description: Extends ProblemDetails to also include the acceptable service info.

 allOf:

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

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

\* \* \* \* End of changes \* \* \* \*