**3GPP TSG-CT3 Meeting #120e C3-221670**

**E-Meeting, 17th – 25th February 2022**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **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:***  | Update of OpenAPI version and TS version in externalDocs field |
|  |  |
| ***Source to WG:*** | China Mobile |
| ***Source to TSG:*** | C3 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-03-01 |
|  |  |  |  |  |
| ***Category:*** |  |  | ***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:*** | CRs modifying the Nbsf\_Management API have been agreed and the version number of the corresponding OpenAPI file thus needs to be incremented following the rules in 3GPP TS 29.501, clause 4.3.1.The following agreed CRs update the OpenAPI file for Nbsf\_Management API for the present release:* CR#0137 impacts the OpenAPI file with a backwards compatible feature.
* CR#0140 impacts the OpenAPI file with a backwards compatible correction.

As some backward compatible corrections and features (but no backward incompatible changes or backward compatible new features) are added of the present release, the draft version number needs to be increased.In addition, the description field covering TS information is updated to cover proper line breaks structure, and the URL of the External Docs field is updated to https. |
|  |  |
| ***Summary of change:*** | The Nbsf\_Management API version incremented from value "1.2.0-alpha.4" to value "1.2.0-alpha.5", and the TS version in the externalDocs field from 17.3.0 to 17.4.0.Update of the line breaks in the description field of TS information, and of the URL of the External Docs Field. |
|  |  |
| ***Consequences if not approved:*** | Incorrect API version number and TS version in externalDocs field. |
|  |  |
| ***Clauses affected:*** | A.2 |
|  |  |
|  | **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 changes to Nbsf\_Management API. |
|  |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**…**

**Proposed changes:**

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

# A.2 Nbsf\_Management API

openapi: 3.0.0

info:

 version: 1.2.0-alpha.5

 title: Nbsf\_Management

 description: |

 Binding Support Management Service API.

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externalDocs:

 description: 3GPP TS 29.521 V17.4.0; 5G System; Binding Support Management Service.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.521/'

servers:

 - url: '{apiRoot}/nbsf-management/v1'

 variables:

 apiRoot:

 default: https://example.com

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

security:

 - {}

 - oAuth2ClientCredentials:

 - nbsf-management

paths:

 /pcfBindings:

 post:

 summary: Create a new Individual PCF for a PDU Session binding information

 operationId: CreatePCFBinding

 tags:

 - PCF Bindings (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: The creation of an individual PCF for a PDU Session binding.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nbsf-management/v1/pcfBindings/{bindingId}'

 required: true

 schema:

 type: string

 '400':

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

 '401':

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

 '403':

 description: The existing PCF binding information stored in the BSF for the indicated combination is returned.

 content:

 application/problem+json:

 schema:

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

 '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'

 '503':

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

 default:

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

 get:

 summary: Read PCF for a PDU Session Bindings information

 operationId: GetPCFBindings

 tags:

 - PCF Bindings (Collection)

 parameters:

 - name: ipv4Addr

 in: query

 description: The IPv4 Address of the served UE.

 required: false

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

 - name: ipv6Prefix

 in: query

 description: The IPv6 Address of the served UE. The NF service consumer shall append '/128' to the IPv6 address in the attribute value. E.g. '2001:db8:85a3::8a2e:370:7334/128'.

 required: false

 schema:

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

 - name: macAddr48

 in: query

 description: The MAC Address of the served UE.

 required: false

 schema:

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

 - name: dnn

 in: query

 description: DNN.

 required: false

 schema:

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

 - name: supi

 in: query

 description: Subscription Permanent Identifier.

 required: false

 schema:

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

 - name: gpsi

 in: query

 description: Generic Public Subscription Identifier

 required: false

 schema:

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

 - name: snssai

 in: query

 description: The identification of slice.

 required: false

 content:

 application/json:

 schema:

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

 - name: ipDomain

 in: query

 description: The IPv4 address domain identifier.

 required: false

 schema:

 type: string

 - name: supp-feat

 in: query

 description: To filter irrelevant responses related to unsupported features

 schema:

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

 responses:

 '200':

 description: The individual PCF for a PDU Session binding session binding information resource matching the query parameter(s) is returned.

 content:

 application/json:

 schema:

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

 '204':

 description: There is no PCF for a PDU Session binding information matching the query parameter(s).

 '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'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

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

 '500':

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

 '503':

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

 default:

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

 /pcfBindings/{bindingId}:

 delete:

 summary: Delete an existing Individual PCF for a PDU Session Binding information

 operationId: DeleteIndPCFBinding

 tags:

 - Individual PCF Binding (Document)

 parameters:

 - name: bindingId

 in: path

 description: Represents the individual PCF Session Binding.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content. The Individual PCF session binding information resource is deleted.

 '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'

 '503':

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

 default:

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

 patch:

 summary: Update an existing Individual PCF for a PDU Session Binding information

 operationId: UpdateIndPCFBinding

 tags:

 - Individual PCF for a PDU Session Binding (Document)

 parameters:

 - name: bindingId

 in: path

 description: Represents the individual PCF for a PDU Session Binding.

 required: true

 schema:

 type: string

 requestBody:

 description: Parameters to update the existing PCF for a PDU Session binding

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: OK (Successful update of the PCF for a PDU Session binding)

 content:

 application/json:

 schema:

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

 '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'

 '503':

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

 default:

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

 /subscriptions:

 post:

 operationId: CreateIndividualSubcription

 summary: Create an individual subscription for event notifications from the BSF

 tags:

 - Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Created.

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nsmf-management/v1/subscriptions/{subId}'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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'

 '503':

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

 default:

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

 callbacks:

 myNotification:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was successful.

 '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'

 '503':

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

 default:

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

 /subscriptions/{subId}:

 put:

 operationId: ReplaceIndividualSubcription

 summary: Replace an individual subscription for event notifications from the BSF

 tags:

 - IndividualSubscription (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: subId

 in: path

 description: subscription correlation ID

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Resource was successfully modified and representation is returned

 content:

 application/json:

 schema:

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

 '204':

 description: No Content. Resource was successfully modified

 '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'

 '503':

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

 default:

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

 delete:

 operationId: DeleteIndividualSubcription

 summary: Delete an individual subscription for event notifications from the BSF

 tags:

 - IndividualSubscription (Document)

 parameters:

 - name: subId

 in: path

 description: subscription correlation ID

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content. Resource was successfully deleted

 '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'

 '503':

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

 default:

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

 /pcf-ue-bindings:

 post:

 summary: Create a new Individual PCF for a UE binding information

 operationId: CreatePCFforUEBinding

 tags:

 - PCF for a UE Bindings (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: The creation of an individual PCF for a UE binding.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nbsf-management/v1/pcf-ue-bindings/{bindingId}'

 required: true

 schema:

 type: string

 '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'

 '503':

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

 default:

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

 get:

 summary: Read PCF for a UE Bindings information

 operationId: GetPCFForUeBindings

 tags:

 - PCF for a UE Bindings (Collection)

 parameters:

 - name: supi

 in: query

 description: Subscription Permanent Identifier.

 required: false

 schema:

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

 - name: gpsi

 in: query

 description: Generic Public Subscription Identifier

 required: false

 schema:

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

 - name: supp-feat

 in: query

 description: To filter irrelevant responses related to unsupported features

 schema:

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

 responses:

 '200':

 description: The individual PCF for a UE binding session binding information resource matching the query parameter(s) is returned.

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 0

 '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'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

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

 '500':

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

 '503':

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

 default:

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

 /pcf-ue-bindings/{bindingId}:

 delete:

 summary: Delete an existing Individual PCF for a UE Binding information

 operationId: DeleteIndPCFforUEBinding

 tags:

 - Individual PCF for a UE Binding (Document)

 parameters:

 - name: bindingId

 in: path

 description: Represents the individual PCF for a UE Binding.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content. The Individual PCF for a UE binding information resource is deleted.

 '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'

 '503':

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

 default:

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

 patch:

 summary: Update an existing Individual PCF for a UE Binding information

 operationId: UpdateIndPCFforUEBinding

 tags:

 - Individual PCF for a UE Binding (Document)

 parameters:

 - name: bindingId

 in: path

 description: Represents the individual PCF for a UE Binding.

 required: true

 schema:

 type: string

 requestBody:

 description: Parameters to update the existing PCF for a UE binding

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: OK (Successful update of the PCF for a PDU Session binding)

 content:

 application/json:

 schema:

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

 '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'

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

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 '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'

 '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:

 nbsf-management: Access to the Nbsf\_Management API

 schemas:

 PcfBinding:

 description: Identifies an Individual PCF for a PDU Session binding.

 type: object

 properties:

 supi:

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

 gpsi:

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

 ipv4Addr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

 ipv6Prefix:

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

 addIpv6Prefixes:

 type: array

 items:

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

 minItems: 1

 description: The additional IPv6 Address Prefixes of the served UE.

 ipDomain:

 type: string

 macAddr48:

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

 addMacAddrs:

 type: array

 items:

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

 minItems: 1

 description: The additional MAC Addresses of the served UE.

 dnn:

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

 pcfFqdn:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'

 pcfIpEndPoints:

 type: array

 items:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/IpEndPoint'

 minItems: 1

 description: IP end points of the PCF hosting the Npcf\_PolicyAuthorization service.

 pcfDiamHost:

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

 pcfDiamRealm:

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

 pcfSmFqdn:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'

 pcfSmIpEndPoints:

 type: array

 items:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/IpEndPoint'

 minItems: 1

 description: IP end points of the PCF hosting the Npcf\_SMPolicyControl service.

 snssai:

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

 suppFeat:

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

 pcfId:

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

 pcfSetId:

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

 recoveryTime:

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

 paraCom:

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

 bindLevel:

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

 ipv4FrameRouteList:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4AddrMask'

 minItems: 1

 ipv6FrameRouteList:

 type: array

 items:

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

 minItems: 1

 required:

 - dnn

 - snssai

 PcfBindingPatch:

 description: Identifies an Individual PCF binding used in an HTTP Patch method.

 type: object

 properties:

 ipv4Addr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4AddrRm'

 ipDomain:

 type: string

 nullable: true

 ipv6Prefix:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6PrefixRm'

 addIpv6Prefixes:

 type: array

 items:

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

 minItems: 1

 description: The additional IPv6 Address Prefixes of the served UE.

 nullable: true

 macAddr48:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48Rm'

 addMacAddrs:

 type: array

 items:

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

 minItems: 1

 description: The additional MAC Addresses of the served UE.

 nullable: true

 pcfId:

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

 pcfFqdn:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'

 pcfIpEndPoints:

 type: array

 items:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/IpEndPoint'

 minItems: 1

 description: IP end points of the PCF hosting the Npcf\_PolicyAuthorization service.

 pcfDiamHost:

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

 pcfDiamRealm:

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

 ParameterCombination:

 description: Represents the combination used by the BSF to check whether there is an existing PCF binding information.

 type: object

 properties:

 supi:

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

 dnn:

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

 snssai:

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

 ExtProblemDetails:

 description: Contains the FQDN or IP endpoints of the existing PCF and the cause value if there is an existing PCF binding information for the indicated combination.

 allOf:

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

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

 BindingResp:

 description: Contains the binding information for a PCF for a PDU Session.

 type: object

 properties:

 pcfSmFqdn:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'

 pcfSmIpEndPoints:

 type: array

 items:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/IpEndPoint'

 minItems: 1

 description: IP end points of the PCF hosting the Npcf\_SMPolicyControl service.

 BsfSubscription:

 description: Contains the event subscription data

 type: object

 properties:

 events:

 type: array

 items:

 type: string

 minItems: 1

 description: Contain te subscribed events.

 notifUri:

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

 notifCorreId:

 type: string

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

 typeOfSubs:

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

 supi:

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

 gpsi:

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

 snssaiDnnPairs:

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

 suppFeat:

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

 required:

 - events

 - notifUri

 - notifCorreId

 - supi

 BsfNotification:

 description: Contains the event notifications.

 type: object

 properties:

 notifCorreId:

 type: string

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

 pcfId:

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

 pcfSetId:

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

 bindLevel:

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

 eventNotifs:

 type: array

 items:

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

 minItems: 1

 description: Notifications about Individual Events

 required:

 - notifCorreId

 - eventNotifs

 BsfEventNotification:

 description: Contains an event notification.

 type: object

 properties:

 event:

 type: string

 description: Indicate an event.

 required:

 - event

 PcfForUeBinding:

 description: Identifies an Individual PCF for a UE binding.

 type: object

 properties:

 supi:

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

 gpsi:

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

 pcfForUeFqdn:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'

 pcfForUeIpEndPoints:

 type: array

 items:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/IpEndPoint'

 minItems: 1

 description: IP end points of the PCF hosting the Npcf\_AmPolicyAuthorization service.

 pcfId:

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

 pcfSetId:

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

 bindLevel:

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

 suppFeat:

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

 required:

 - supi

 PcfForUeBindingPatch:

 description: Identifies the updates of an Individual PCF for a UE binding.

 type: object

 properties:

 pcfForUeFqdn:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'

 pcfForUeIpEndPoints:

 type: array

 items:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/IpEndPoint'

 minItems: 1

 description: IP end points of the PCF hosting the Npcf\_AmPolicyAuthorization service.

 pcfId:

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

 SnssaiDnnPair:

 description: Contains a S-NSSAI and DNN combination

 type: object

 required:

 - snssai

 - dnn

 properties:

 dnn:

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

 snssai:

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

 BindingLevel:

 anyOf:

 - type: string

 enum:

 - NF\_SET

 - NF\_INSTANCE

 - 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

 - "NF\_SET"

 - "NF\_INSTANCE"

 TypeOfSubscription:

 anyOf:

 - type: string

 enum:

 - PDU\_SESSION

 - UE

 - 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

 - "PDU\_SESSION"

 - "UE"

#

 BsfSubscriptionResp:

 description: It represents a response to a modification or creation request of an Individual Binding Subscription resource. It may contain the notification of the already met events.

 anyOf:

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

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

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