**3GPP TSG-CT WG4 Meeting #98eC4-203327**

**E-Meeting, 02nd – 12th June 2020**

|  |
| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.531** | **CR** | **0070** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  |
| *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:***  | Correction to usage of TAI |
|  |  |
| ***Source to WG:*** | Qualcomm Incorporated |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | Vertical\_LAN |  | ***Date:*** | 2020-05-15 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | In CT4 93 and CT4 97e Nid was added to definition of Tai in TS 29.571, which overloads the definition and creates a conflict with definitions in TS 23.008. Hence it is proposed to remove this from of the base data type from TS 29.571 and use it instead in APIs here as needed. |
|  |  |
| ***Summary of change:*** | Nid is added to the APIs using Tai. |
|  |  |
| ***Consequences if not approved:*** | Nid will be missing from the APIs that are using Tai. |
|  |  |
| ***Clauses affected:*** | 6.1.3.2.3.1, 6.2.6.2.3, 6.2.6.2.4, 6.2.6.2.8, A.2, 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 backward compatible correction in the openAPI specification file. |
|  |  |
| ***This CR's revision history:*** | Corrected query parameters and cardinality at a few instances. |

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

6.1.3.2.3.1 GET

This method retrieves the information related to the selected slice based on the input query parameters provided by the NF service consumer specified in table 6.1.3.2.3.1-1.

This method shall support input query parameters specified in table 6.1.3.2.3.1-1 and the response data structure and response codes specified in table 6.1.3.2.3.1-3.

**Table 6.1.3.2.3.1-1: URI query parameters supported by the GET method on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| nf-type | NFType | M | 1 | This IE shall contain the NF type of the NF service consumer. |
| nf-id | NfInstanceId | M | 1 | This IE shall contain the NF identifier of the NF service consumer. |
| slice-info-request-for-registration | SliceInfoForRegistration | C | 0..1 | This IE shall be present when the network slice information is requested during the Registration procedure or during EPS to 5GS handover procedure using N26 interface towards an NSSF in the serving PLMN.  |
| slice-info-request-for-pdu-session | SliceInfoForPDUSession | C | 0..1 | This IE shall be present when the network slice information is requested during the PDU session establishment procedure. |
| slice-info-request-for-ue-cu | SliceInfoForUEConfigurationUpdate | C | 0..1 | This IE shall be present when the network slice information is requested during UE configuration update procedure. |
| home-plmn-id | PlmnId | C | 0..1 | This IE shall be present in the request towards an NSSF in the serving PLMN if the subscriber is a roamer to the serving PLMN. When present, this IE shall contain the home PLMN Id of the UE. |
| tai | Tai | C | 0..1 | This IE shall be present in the request towards an NSSF in the serving PLMN. When present, this IE shall contain the TAI the UE is currently located. |
| tai-nid | Nid | C | 0..1 | In case of an SNPN, this IE shall contain the associated network identifier for the tai. |
| supported-features | SupportedFeatures | C | 0..1 | This IE shall be present if at least one optional feature defined in clause 6.1.8 is supported. |

# \*\*\* Next change \*\*\*

##### 6.2.6.2.3 Type: SupportedNssaiAvailabilityData

Table 6.2.6.2.3-1: Definition of type SupportedNssaiAvailabilityData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| tai | Tai | M | 1 | This IE shall contain the identifier of the Tracking Area |  |
| taiNid | Nid | C | 0..1 | In case of an SNPN, this IE shall contain the associated network identifier for the tai. |  |
| supportedSnssaiList | array(Snssai) | M | 1..N | This IE shall contain the S-NSSAI(s) supported by the AMF for the TA. |  |
| taiList | array(Tai) | O | 1..N | When present, this IE shall contain additional TAIs with the same list of supported S-NSSAIs.(NOTE) | ONSSAI |
| taiNids | array(Nid) | C | 1..N | In case of an SNPN, this IE shall contain the associated network identifier of each element in taiList, respectively. | ONSSAI |
| taiRangeList | array(TaiRange) | O | 1..N | When present, this IE shall contain range(s) of TAIs with the same list of supported S-NSSAIs.(NOTE) | ONSSAI |
| NOTE: The taiList IE shall not include the TAI contained in the tai IE. The taiRangeList IE may encompass the TAI contained in the tai IE. |

##### 6.2.6.2.4 Type: AuthorizedNssaiAvailabilityData

Table 6.2.6.2.4-1: Definition of type AuthorizedNssaiAvailabilityData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| tai | Tai | M | 1 | This IE shall contain the identifier of the Tracking Area. |  |
| taiNid | Nid | C | 0..1 | In case of an SNPN, this IE shall contain the associated network identifier for the tai. |  |
| supportedSnssaiList | array(Snssai) | M | 1..N | This IE shall contain the S-NSSAI(s) supported by the AMF and 5G-AN and authorized by the NSSF for the TA. |  |
| restrictedSnssaiList | array(RestrictedSnssai) | O | 1..N | This IE may contain the restricted S-NSSAI(s) per PLMN for the TA. If the restricted S-NSSAI is not present, no restricted S-NSSAI is applicable to the TA. When present, this IE shall be included only by the NSSF. |  |
| taiList | array(Tai) | O | 1..N | When present, this IE shall contain additional TAIs with the same lists of supported and restricted S-NSSAIs.(NOTE) | ONSSAI |
| taiNids | array(Nid) | C | 1..N | In case of an SNPN, this IE shall contain the associated network identifier of each element in taiList, respectively. | ONSSAI |
| taiRangeList | array(TaiRange) | O | 1..N | When present, this IE shall contain range(s) of TAIs with the same lists of supported and restricted S-NSSAIs.(NOTE) | ONSSAI |
| NOTE: The taiList IE shall not include the TAI contained in the tai IE. The taiRangeList IE may encompass the TAI contained in the tai IE. |

# \*\*\* Next change \*\*\*

6.2.6.2.8 Type: NssfEventSubscriptionCreateData

**Table 6.2.6.2.8-1: Definition of type NssfEventSubscriptionCreateData**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** |
| nfNssaiAvailabilityUri | Uri | M | 1 | Identifies the recipient of notifications sent by the NF service consumer (e.g. AMF) for this subscription |
| taiList | array(Tai) | M | 1..N | Identifies the TAIs supported by the NF service consumer (e.g. AMF). |
| taiNids | array(Nid) | C | 1..N | In case of an SNPN, this IE shall contain the associated network identifier of each element in taiList, respectively. |
| event | NssfEventType | M | 1 | Describes the event to be subscribed for this subscription. |
| expiry | DateTime | O | 0..1 | This IE may be included by the NF service consumer. When present, this IE shall represent the suggested time after which the subscription becomes invalid. |
| amfSetId | string | O | 0..1 | This IE may be included to identify a specific AMF Set for which this subscription applies.When present, this IE shall be constructed from PLMN-ID (i.e. three decimal digits MCC and two or three decimal digits MNC), AMF Region Id (8 bit), and AMF Set Id (10 bit).Pattern: '^[0-9]{3}-[0-9]{2-3}-[A-Fa-f0-9]{2}-[0-3][A-Fa-f0-9]{2}$' |

# \*\*\* Next change \*\*\*

A.2 Nnssf\_NSSelection API

openapi: 3.0.0

info:

 version: '2.1.0.alpha-2'

 title: 'NSSF NS Selection'

 description: |

 NSSF Network Slice Selection Service.

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security:

 - {}

 - oAuth2ClientCredentials:

 - nnssf-nsselection

servers:

 - url: '{apiRoot}/nnssf-nsselection/v2'

 variables:

 apiRoot:

 default: https://example.com

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

externalDocs:

 description: 3GPP TS 29.531 V16.2.0; 5G System; Network Slice Selection Services; Stage 3

 url: http://www.3gpp.org/ftp/Specs/archive/29\_series/29.531/

paths:

 /network-slice-information:

 get:

 summary: Retrieve the Network Slice Selection Information

 tags:

 - Network Slice Information (Document)

 operationId: NSSelectionGet

 parameters:

 - name: nf-type

 in: query

 description: NF type of the NF service consumer

 required: true

 schema:

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

 - name: nf-id

 in: query

 description: NF Instance ID of the NF service consumer

 required: true

 schema:

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

 - name: slice-info-request-for-registration

 in: query

 description: Requested network slice information during Registration procedure

 content:

 application/json:

 schema:

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

 - name: slice-info-request-for-pdu-session

 in: query

 description: Requested network slice information during PDU session establishment procedure

 content:

 application/json:

 schema:

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

 - name: slice-info-request-for-ue-cu

 in: query

 description: Requested network slice information during UE confuguration update procedure

 content:

 application/json:

 schema:

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

 - name: home-plmn-id

 in: query

 description: PLMN ID of the HPLMN

 content:

 application/json:

 schema:

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

 - name: tai

 in: query

 description: TAI of the UE

 content:

 application/json:

 schema:

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

 - name: tai-nid

 in: query

 description: Network identifier associated with the TAI

 content:

 application/json:

 schema:

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

 - name: supported-features

 in: query

 description: Features required to be supported by the NFs in the target slice instance

 schema:

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

 responses:

 '200':

 description: OK (Successful Network Slice Selection)

 content:

 application/json:

 schema:

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

 '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:

 description: Unexpected error

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{nrfApiRoot}/oauth2/token'

 scopes:

 nnssf-nsselection: Access to the Nnssf\_NSSelection API

 schemas:

 AuthorizedNetworkSliceInfo:

 type: object

 properties:

 allowedNssaiList:

 type: array

 items:

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

 minItems: 1

 configuredNssai:

 type: array

 items:

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

 minItems: 1

 targetAmfSet:

 type: string

 pattern: '^[0-9]{3}-[0-9]{2-3}-[A-Fa-f0-9]{2}-[0-3][A-Fa-f0-9]{2}$'

 candidateAmfList:

 type: array

 items:

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

 minItems: 1

 rejectedNssaiInPlmn:

 type: array

 items:

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

 minItems: 1

 rejectedNssaiInTa:

 type: array

 items:

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

 minItems: 1

 nsiInformation:

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

 supportedFeatures:

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

 nrfAmfSet:

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

 nrfAmfSetNfMgtUri:

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

 nrfAmfSetAccessTokenUri:

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

 targetAmfServiceSet:

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

 SubscribedSnssai:

 type: object

 required:

 - subscribedSnssai

 properties:

 subscribedSnssai:

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

 defaultIndication:

 type: boolean

 AllowedSnssai:

 type: object

 required:

 - allowedSnssai

 properties:

 allowedSnssai:

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

 nsiInformationList:

 type: array

 items:

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

 minItems: 1

 mappedHomeSnssai:

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

 AllowedNssai:

 type: object

 required:

 - allowedSnssaiList

 - accessType

 properties:

 allowedSnssaiList:

 type: array

 items:

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

 minItems: 1

 accessType:

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

 NsiInformation:

 type: object

 required:

 - nrfId

 properties:

 nrfId:

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

 nsiId:

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

 nrfNfMgtUri:

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

 nrfAccessTokenUri:

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

 MappingOfSnssai:

 type: object

 required:

 - servingSnssai

 - homeSnssai

 properties:

 servingSnssai:

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

 homeSnssai:

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

 SliceInfoForRegistration:

 type: object

 properties:

 subscribedNssai:

 type: array

 items:

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

 minItems: 1

 allowedNssaiCurrentAccess:

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

 allowedNssaiOtherAccess:

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

 sNssaiForMapping:

 type: array

 items:

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

 minItems: 1

 requestedNssai:

 type: array

 items:

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

 minItems: 1

 defaultConfiguredSnssaiInd:

 type: boolean

 mappingOfNssai:

 type: array

 items:

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

 minItems: 1

 requestMapping:

 type: boolean

 SliceInfoForPDUSession:

 type: object

 required:

 - sNssai

 - roamingIndication

 properties:

 sNssai:

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

 roamingIndication:

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

 homeSnssai:

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

 SliceInfoForUEConfigurationUpdate:

 type: object

 properties:

 subscribedNssai:

 type: array

 items:

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

 minItems: 1

 allowedNssaiCurrentAccess:

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

 allowedNssaiOtherAccess:

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

 defaultConfiguredSnssaiInd:

 type: boolean

 requestedNssai:

 type: array

 items:

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

 minItems: 1

 mappingOfNssai:

 type: array

 items:

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

 minItems: 1

 ConfiguredSnssai:

 type: object

 required:

 - configuredSnssai

 properties:

 configuredSnssai:

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

 mappedHomeSnssai:

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

 RoamingIndication:

 anyOf:

 - type: string

 enum:

 - NON\_ROAMING

 - LOCAL\_BREAKOUT

 - HOME\_ROUTED\_ROAMING

 - type: string

 NsiId:

 type: string

A.3 Nnssf\_NSSAIAvailability API

openapi: 3.0.0

info:

 version: '1.1.0.alpha-2'

 title: 'NSSF NSSAI Availability'

 description: |

 NSSF NSSAI Availability Service.

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security:

 - {}

 - oAuth2ClientCredentials:

 - nnssf-nssaiavailability

servers:

 - url: '{apiRoot}/nnssf-nssaiavailability/v1'

 variables:

 apiRoot:

 default: https://example.com

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

externalDocs:

 description: 3GPP TS 29.531 V16.2.0; 5G System; Network Slice Selection Services; Stage 3

 url: http://www.3gpp.org/ftp/Specs/archive/29\_series/29.531/

paths:

 /nssai-availability/{nfId}:

 put:

 summary: Updates/replaces the NSSF with the S-NSSAIs the NF service consumer (e.g AMF)supports per TA

 tags:

 - NF Instance ID (Document)

 operationId: NSSAIAvailabilityPut

 parameters:

 - name: nfId

 in: path

 description: Identifier of the NF service consumer instance

 required: true

 schema:

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

 - name: Content-Encoding

 in: header

 description: Content-Encoding, described in IETF RFC 7231

 schema:

 type: string

 - name: Accept-Encoding

 in: header

 description: Accept-Encoding, described in IETF RFC 7231

 schema:

 type: string

 requestBody:

 description: Parameters to update/replace at the NSSF, the S-NSSAIs supported per TA

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK (Successful update of SNSSAI information per TA)

 content:

 application/json:

 schema:

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

 headers:

 Accept-Encoding:

 description: Accept-Encoding, described in IETF RFC 7694

 schema:

 type: string

 Content-Encoding:

 description: Content-Encoding, described in IETF RFC 7231

 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:

 description: Unexpected error

 patch:

 summary: Updates an already existing S-NSSAIs per TA provided by the NF service consumer (e.g AMF)

 tags:

 - NF Instance ID (Document)

 operationId: NSSAIAvailabilityPatch

 parameters:

 - name: nfId

 in: path

 description: Identifier of the NF service consumer instance

 required: true

 schema:

 type: string

 requestBody:

 description: JSON Patch instructions to update at the NSSF, the S-NSSAIs supported per TA

 required: true

 content:

 application/json-patch+json::

 schema:

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

 responses:

 '200':

 description: OK (Successful update of SNSSAI information per TA)

 content:

 application/json:

 schema:

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

 '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:

 description: Unexpected error

 delete:

 summary: Deletes an already existing S-NSSAIs per TA provided by the NF service consumer (e.g AMF)

 tags:

 - NF Instance ID (Document)

 operationId: NSSAIAvailabilityDelete

 parameters:

 - name: nfId

 in: path

 description: Identifier of the NF service consumer instance

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content (Successful deletion of SNSSAI information per TA)

 '400':

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

 '401':

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

 '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:

 description: Unexpected error

 /nssai-availability/subscriptions:

 post:

 summary: Creates subscriptions for notification about updates to NSSAI availability information

 tags:

 - Subscriptions (Collection)

 operationId: NSSAIAvailabilityPost

 requestBody:

 description: Subscription for notification about updates to NSSAI availability information

 required: true

 content:

 application/json:

 schema:

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

 callbacks:

 nssaiAvailabilityNotification:

 '{request.body#/nfNssaiAvailabilityUri}':

 post:

 requestBody: # contents of the callback message

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content (successful notification)

 '400':

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

 '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:

 description: Unexpected error

 responses:

 '201':

 description: Created (Successful creation of subscription for notification)

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nnssf-nssaiavailability/v1/nssai-availability/subscriptions/{subscriptionId}'

 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:

 description: Unexpected error

 /nssai-availability/subscriptions/{subscriptionId}:

 delete:

 summary: Deletes an already existing NSSAI availability notification subscription

 tags:

 - Subscription ID (Document)

 operationId: NSSAIAvailabilityUnsubscribe

 parameters:

 - name: subscriptionId

 in: path

 description: Identifier of the subscription for notification

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content (Successful deletion of subscription for NSSAI Availability notification)

 '400':

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

 '401':

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

 '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:

 description: Unexpected error

 /nssai-availability:

 options:

 summary: Discover communication options supported by NSSF for NSSAI Availability

 operationId: NSSAIAvailabilityOptions

 tags:

 - NSSAI Availability Store

 responses:

 '200':

 description: OK

 headers:

 Accept-Encoding:

 description: Accept-Encoding, described in IETF RFC 7694

 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'

 '405':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/405'

 '429':

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

 '500':

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

 '501':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/501'

 '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:

 nnssf-nssaiavailability: Access to the Nnssf\_NSSAIAvailability API

 schemas:

 NssaiAvailabilityInfo:

 type: object

 required:

 - supportedNssaiAvailabilityData

 properties:

 supportedNssaiAvailabilityData:

 type: array

 items:

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

 minItems: 1

 supportedFeatures:

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

 amfSetId:

 type: string

 pattern: '^[0-9]{3}-[0-9]{2-3}-[A-Fa-f0-9]{2}-[0-3][A-Fa-f0-9]{2}$'

 SupportedNssaiAvailabilityData:

 type: object

 required:

 - tai

 - supportedSnssaiList

 properties:

 tai:

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

 taiNid:

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

 supportedSnssaiList:

 type: array

 items:

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

 minItems: 1

 taiList:

 type: array

 items:

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

 minItems: 1

 taiNids:

 type: array

 items:

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

 minItems: 1

 taiRangeList:

 type: array

 items:

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

 minItems: 1

 AuthorizedNssaiAvailabilityData:

 type: object

 required:

 - tai

 - supportedSnssaiList

 properties:

 tai:

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

 taiNid:

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

 supportedSnssaiList:

 type: array

 items:

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

 minItems: 1

 restrictedSnssaiList:

 type: array

 items:

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

 minItems: 1

 taiList:

 type: array

 items:

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

 minItems: 1

 taiNids:

 type: array

 items:

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

 minItems: 1

 taiRangeList:

 type: array

 items:

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

 minItems: 1

 RestrictedSnssai:

 type: object

 required:

 - homePlmnId

 - sNssaiList

 properties:

 homePlmnId:

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

 sNssaiList:

 type: array

 items:

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

 minItems: 1

 homePlmnIdList:

 type: array

 items:

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

 minItems: 1

 AuthorizedNssaiAvailabilityInfo:

 type: object

 required:

 - authorizedNssaiAvailabilityData

 properties:

 authorizedNssaiAvailabilityData:

 type: array

 items:

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

 minItems: 1

 supportedFeatures:

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

 NssfEventSubscriptionCreateData:

 type: object

 required:

 - nfNssaiAvailabilityUri

 - taiList

 - event

 properties:

 nfNssaiAvailabilityUri:

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

 taiList:

 type: array

 items:

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

 minItems: 1

 taiNids:

 type: array

 items:

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

 minItems: 1

 event:

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

 expiry:

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

 amfSetId:

 type: string

 pattern: '^[0-9]{3}-[0-9]{2-3}-[A-Fa-f0-9]{2}-[0-3][A-Fa-f0-9]{2}$'

 NssfEventSubscriptionCreatedData:

 type: object

 required:

 - subscriptionId

 properties:

 subscriptionId:

 type: string

 expiry:

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

 authorizedNssaiAvailabilityData:

 type: array

 items:

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

 minItems: 1

 NssfEventNotification:

 type: object

 required:

 - subscriptionId

 - authorizedNssaiAvailabilityData

 properties:

 subscriptionId:

 type: string

 authorizedNssaiAvailabilityData:

 type: array

 items:

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

 minItems: 1

 NssfEventType:

 anyOf:

 - type: string

 enum:

 - SNSSAI\_STATUS\_CHANGE\_REPORT

 - type: string

 PatchDocument:

 type: array

 items:

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

 minItems: 1

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