



# NSSAIAvailability

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## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '1.0.0'

**Title:** 'NSSF NSSAI Availability'

**Description:** 'NSSF NSSAI Availability Service'

## Servers

**URL:** '{apiRoot}/nssf-nssaiavailability/v1'

**Variables:**

**API Root:**

**Default:** https://example.com

**Description:** apiRoot as defined in subclause 4.4 of 3GPP TS 29.501

## Security

- {}

- oAuth2Clientcredentials:
- nssf-nssaiavailability

## 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)

**Operation ID:** NSSAIAvailabilityPut

#### Parameters:

- **Name:** nfId

**In:** path

**Description:** Identifier of the NF service consumer instance

**Required/Optional:** true

#### Schema:

**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'

#### Request Body:

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

**Required/Optional:** true

#### Content:

**Application/JSON:**

#### Schema:

**Reference:** '#/components/schemas/NssaiAvailabilityInfo'

#### Responses:

'200':

**Description:** OK (Successful update of SNSSAI information per TA)

#### Content:

**Application/JSON:**

#### Schema:

**Reference:** '#/components/schemas/AuthorizedNssaiAvailabilityInfo'

'400':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'

'411':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/411'

'413':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/413'

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'415':
  Reference: 'TS29571_CommonData.yaml#/components/responses/415'
'429':
  Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: '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)
  Operation ID: NSSAIAvailabilityPatch

  Parameters:
    - Name: nfId
      In: path
      Description: Identifier of the NF service consumer instance
      Required/Optional: true
      Schema:
        Type: string
  Request Body:
    Description: JSON Patch instructions to update at the NSSF, the S-NSSAIs supported
per TA
    Required/Optional: true
    Content:
      application/json-patch+json::
        Schema:
          Reference: '#/components/schemas/PatchDocument'

  Responses:
    '200':
      Description: OK (Successful update of SNSSAI information per TA)
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/AuthorizedNssaiAvailabilityInfo'
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '401':
      Reference: 'TS29571_CommonData.yaml#/components/responses/401'
    '403':
      Reference: 'TS29571_CommonData.yaml#/components/responses/403'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '411':
      Reference: 'TS29571_CommonData.yaml#/components/responses/411'
    '413':
      Reference: 'TS29571_CommonData.yaml#/components/responses/413'

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    '415':
      Reference: 'TS29571_CommonData.yaml#/components/responses/415'
    '429':
      Reference: 'TS29571_CommonData.yaml#/components/responses/429'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: '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)
  Operation ID: NSSAIAvailabilityDelete

  Parameters:
    - Name: nfId
      In: path
      Description: Identifier of the NF service consumer instance
      Required/Optional: true
      Schema:
        Type: string

  Responses:
    '204':
      Description: No Content (Successful deletion of SNSSAI information per TA)
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '401':
      Reference: 'TS29571_CommonData.yaml#/components/responses/401'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '429':
      Reference: 'TS29571_CommonData.yaml#/components/responses/429'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error

```

## /nssai-availability/subscriptions

**Method:** Post

**Summary:** Creates subscriptions for notification about updates to NSSAI availability information

**Tags:**

- Subscriptions (Collection)

**Operation ID:** NSSAIAvailabilityPost

**Request Body:**

**Description:** Subscription for notification about updates to NSSAI availability information

**Required/Optional:** true

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/NssfEventSubscriptionCreateData'

**Callbacks:**

**nssaiAvailabilityNotification:**

'{request.body#/nfNssaiAvailabilityUri}':

**Method:** Post

**Request Body:** # contents of the callback message

**Required/Optional:** true

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/NssfEventNotification'

**Responses:**

'204':

**Description:** No Content (successful notification)

'400':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'

'411':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/411'

'413':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/413'

'415':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/415'

'429':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/429'

'500':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'

'503':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'

**Default:**

**Description:** Unexpected error

**Responses:**

'201':

**Description:** Created (Successful creation of subscription for notification)

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/NssfEventSubscriptionCreatedData'

**Headers:**

**Location:**

**description:** 'Contains the URI of the newly created resource, according to the structure:

{apiRoot}/nssf-nssaiavailability/v1/nssai-availability/subscriptions/{subscriptionId}'

```

    Required/Optional: true
    Schema:
      Type: string
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '401':
    Reference: 'TS29571_CommonData.yaml#/components/responses/401'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '411':
    Reference: 'TS29571_CommonData.yaml#/components/responses/411'
  '413':
    Reference: 'TS29571_CommonData.yaml#/components/responses/413'
  '415':
    Reference: 'TS29571_CommonData.yaml#/components/responses/415'
  '429':
    Reference: 'TS29571_CommonData.yaml#/components/responses/429'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: '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)

**Operation ID:** NSSAIAvailabilityUnsubscribe

### Parameters:

- **Name:** subscriptionId

**In:** path

**Description:** Identifier of the subscription for notification

**Required/Optional:** true

**Schema:**

**Type:** string

### Responses:

'204':

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

'400':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/401'

```

'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'429':
  Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error

```

## Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nssf-nssaiavailability: Access to the Nssf_NSSAIAvailability API

schemas:
  NssaiAvailabilityInfo:
    Type: object
    Required:
      - supportedNssaiAvailabilityData
    Properties:
      supportedNssaiAvailabilityData:
        Type: array
        Items:
          Reference: '#/components/schemas/SupportedNssaiAvailabilityData'
        minItems: 1
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  SupportedNssaiAvailabilityData:
    Type: object
    Required:
      - tai
      - supportedSnssaiList
    Properties:
      tai:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
      supportedSnssaiList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1
  AuthorizedNssaiAvailabilityData:
    Type: object

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Required:
- tai
- supportedSnssaiList
Properties:
  tai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
  supportedSnssaiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    minItems: 1
  restrictedSnssaiList:
    Type: array
    Items:
      Reference: '#/components/schemas/RestrictedSnssai'
    minItems: 1
RestrictedSnssai:
Type: object
Required:
- homePlmnId
- sNssaiList
Properties:
  homePlmnId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
  sNssaiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    minItems: 1
AuthorizedNssaiAvailabilityInfo:
Type: object
Required:
- authorizedNssaiAvailabilityData
Properties:
  authorizedNssaiAvailabilityData:
    Type: array
    Items:
      Reference: '#/components/schemas/AuthorizedNssaiAvailabilityData'
    minItems: 1
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
NssfEventSubscriptionCreateData:
Type: object
Required:
- nfNssaiAvailabilityUri
- taiList
- event
Properties:
  nfNssaiAvailabilityUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  taiList:
    Type: array
    Items:

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      Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
    minItems: 1
  event:
    Reference: '#/components/schemas/NssfEventType'
  expiry:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
NssfEventSubscriptionCreatedData:
  Type: object
  Required:
    - subscriptionId
  Properties:
    subscriptionId:
      Type: string
    expiry:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    authorizedNssaiAvailabilityData:
      Type: array
      Items:
        Reference: '#/components/schemas/AuthorizedNssaiAvailabilityData'
      minItems: 1
NssfEventNotification:
  Type: object
  Required:
    - subscriptionId
    - authorizedNssaiAvailabilityData
  Properties:
    subscriptionId:
      Type: string
    authorizedNssaiAvailabilityData:
      Type: array
      Items:
        Reference: '#/components/schemas/AuthorizedNssaiAvailabilityData'
      minItems: 1
NssfEventType:
  anyOf:
    - type: string
      enum:
        - SNSSAI_STATUS_CHANGE_REPORT
    - type: string
PatchDocument:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
  minItems: 1

```

## External Docs

**Description:** 3GPP TS 29.531 V15.2.0; 5G System; Network Slice Selection Services; Stage 3

**URL:** [http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.531/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.531/)

