



# Nchf\_SpendingLimitControl

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The Nchf\_SpendingLimitControl service enables the NF service consumer to retrieve policy counter status information per UE from the CHF by subscribing to spending limit reporting (that is notifications of policy counter status changes).

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## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Description:** Spending Limit Control Service API

**Version:** "1.0.0"

**Title:** Nchf\_SpendingLimitControl

## Servers

**URL:** 'http://{apiRoot}/nchf-spendinglimitcontrol/v1'

**Variables:**

**API Root:**

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

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

# Security

```
- {}
- oAuth2ClientCredentials:
  - nchf-spendinglimitcontrol
```

# Paths

## /subscriptions

**Method:** Post

**Request Body:**

**Required/Optional:** true

**Content:**

**Application/JSON:**

**Schema:**

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

**Responses:**

'201':

**Description:** Success

**Content:**

**Application/JSON:**

**Schema:**

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

**Headers:**

**Location:**

**description:** 'Contains the URI of the created individual spending limit resource, according to the structure:

{apiRoot}/nchf-spendinglimitcontrol/v1/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:
  Reference: './TS29571_CommonData.yaml#/components/responses/default'
Callbacks:
  statusNotification:
    '{$request.body#/notifUri}/notify':
      Method: Post
      Request Body:
        Required/Optional: true
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/SpendingLimitStatus'

  Responses:
    '204':
      Description: No Content, Notification was succesfull
    '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:
      Reference: './TS29571_CommonData.yaml#/components/responses/default'
  subscriptionTermination:
    '{$request.body#/notifUri}/terminate':
      Method: Post
      Request Body:
        Required/Optional: true
        Content:
          Application/JSON:
            Schema:
```

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

**Responses:**

'204':

**Description:** No Content, Notification was succesfull

'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:**

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

## /subscriptions/{subscriptionId}

**Parameters:**

- in: path

**name:** subscriptionId

**Description:** Identifies an individual spending limit retrieval subscription.

**Required/Optional:** true

**Schema:**

**Type:** string

**put:**

**Request Body:**

**Required/Optional:** true

**Content:**

**Application/JSON:**

**Schema:**

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

**Responses:**

'200':

**Description:** OK. Resource was succesfully modified and representation is returned

**Content:**

```
Application/JSON:
  Schema:
    Reference: '#/components/schemas/SpendingLimitStatus'
  '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:
    Reference: './TS29571_CommonData.yaml#/components/responses/default'
delete:

Responses:
  '204':
    Description: No Content. Resource was succesfully deleted
  '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'
  '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:
    Reference: './TS29571_CommonData.yaml#/components/responses/default'
```

# Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nchf-spendinglimitcontrol: Access to the Nchf_SpendingLimitControl API

schemas:
  SpendingLimitContext:
    Type: object
    Properties:
      supi:
        Description: The Subscription Permanent Identifier (Supi) shall be present within
        the initial spending limit retrieval procedure (creation of a new individual subscription).

        Reference: './TS29571_CommonData.yaml#/components/schemas/Supi'
      gpsi:
        Description: The Generic Public Subscription Identifier (Gpsi) may be present
        within the initial spending limit retrieval procedure (creation of a new individual
        subscription).
        Reference: './TS29571_CommonData.yaml#/components/schemas/Gpsi'
      policyCounterIds:
        Type: array
        Items:
          Reference: '#/components/schemas/PolicyCounterId'
        minItems: 1
        Description: This is a list of policy counter identifier(s), which identifies
        policy counters maintained per subscriber within the CHF.
      notifUri:
        Description: This attribute identifies the recipient of spending limit
        notifications sent to the NF service consumer by the CHF. The notifUri shall be present
        within the initial spending limit retrieval procedure (creation of a new individual
        subscription). It may be present within the intermediate spending limit retrieval procedure
        (modification of an existing subscription).
        Reference: './TS29571_CommonData.yaml#/components/schemas/Uri'
      supportedFeatures:
        Description: The list of supported features as described in subclause 5.8 shall
        be supplied by the NF service consumer in the POST request that request the creation of a
        spending limit report resource.
        Reference: './TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
      SpendingLimitStatus:
        Type: object
        Properties:
          supi:
            Description: The Subscription Permanent Identifier (Supi) shall be present within
            the callback notify service operation (notification of the status of subscribed policy
            counters).
            Reference: './TS29571_CommonData.yaml#/components/schemas/Supi'

```

**statusInfos:**  
**Type:** object  
**additionalProperties:**  
**Reference:** '#/components/schemas/PolicyCounterInfo'  
**minProperties:** 1  
**Description:** Status of the requested policy counters. The key of the map is the attribute "policyCounterId".  
**supportedFeatures:**  
**Description:** If the supportedFeatures is included in the request by the NF service consumer, it shall be supplied in the reply of the corresponding request by the CHF.  
**Reference:** './TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'  
**Required:**  
- statusInfos

**PolicyCounterInfo:**  
**Type:** object  
**Properties:**  
**policyCounterId:**  
**Reference:** '#/components/schemas/PolicyCounterId'  
**currentStatus:**  
**Type:** string  
**Description:** Identifies the policy counter status applicable for a specific policy counter identified by the policyCounterId. The values (e.g. valid, invalid or any other status) are not specified. The interpretation and actions related to the defined values are out of scope of 3GPP.  
**penPolCounterStatuses:**  
**Type:** array  
**Items:**  
**Reference:** '#/components/schemas/PendingPolicyCounterStatus'  
**minItems:** 1  
**Description:** Provides the pending policy counter status.  
**Required:**  
- policyCounterId  
- currentStatus

**PendingPolicyCounterStatus:**  
**Type:** object  
**Properties:**  
**policyCounterStatus:**  
**Type:** string  
**Description:** Identifies the policy counter status applicable for a specific policy counter identified by the policyCounterId. The values (e.g. valid, invalid or any other status) are not specified. The interpretation and actions related to the defined values are out of scope of 3GPP.  
**activationTime:**  
**Description:** Indicates the activation times per required policy counter.  
**Reference:** './TS29571\_CommonData.yaml#/components/schemas/DateTime'  
**Required:**  
- policyCounterStatus  
- activationTime

**PolicyCounterId:**  
**Type:** string  
**Description:** Identifies a policy counter.

**SubscriptionTerminationInfo:**  
**Type:** object  
**Properties:**

```
supi:  
  Reference: './TS29571_CommonData.yaml#/components/schemas/Supi'  
termCause:  
  Reference: '#/components/schemas/TerminationCause'  
Required:  
  - supi  
TerminationCause:  
  Type: string  
enum:  
  - REMOVED_SUBSCRIBER
```

## External Docs

**Description:** 3GPP TS 29.594 V15.2.0; 5G System; Spending Limit Control Service.  
**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.594/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.594/)'