



Nsmsf_SMSservice

The Nsmsf_SMSservice service provides the service capability for the NF Service Consumer (for example, AMF) to authorize SMS and activate SMS for a service user on SMSF. The following are the key functionalities of this NF service:

- Activation or deactivation of SMS service for a given service user, which results in creating/updating/deleting an UE Context for SMS in SMSF.
- Send SMS payload in uplink direction to SMSF.

Reference: 3GPP TS 29.540 version 15.0.0 Release 15

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OpenAPI

OpenAPI Version: 3.0.0

info

Version: '1.0.0'

Title: 'Nsmsf_SMSservice Service API'

Description: 'SMSF SMSservice Service API'

externalDocs

Description: 3GPP TS 29.540 V15.2.0; 5G System; SMS Services; Stage 3

URL: 'http://www.3gpp.org/ftp/Specs/archive/29_series/29.540/'

servers

URL: '{apiRoot}/nsmf-sms/v1'

Variables:

API Root:

Default: https://example.com

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

paths

/ue-contexts/{supi}

put:

Summary: Activate SMS Service for a given UE

Operation ID: SMSserviceActivation

Tags:

- UEContext (Document)

Parameters:

- name: supi

In: path

Required/Optional: true

Description: Subscriber Permanent Identifier (SUPI)

Schema:

Type: string

Request Body:

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/UeSmsContextData'

Required/Optional: true

Responses:

'201' UE Context for SMS is created in SMSF

Content:

Application/JSON:

Schema:**Reference:** '#/components/schemas/UeSmsContextData'**Headers:****Location:****Description:** 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nsmf-sms/v1/ue-contexts/{supi}'**Required/Optional:** true**Schema:****Type:** string

'204' UE Context for SMS is updated in SMSF

'400' Invalid Service Request

Content:

application/problem+json:

Schema:**Reference:** 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'403' Unable to create/update UE Context for SMS in SMSF

Content:

application/problem+json:

Schema:**Reference:** 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'404' Unable to found subscription for service user or UE Context for SMS in SMSF

Content:

application/problem+json:

Schema:**Reference:** 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'503' Service Unavailable

Content:

application/problem+json:

Schema:**Reference:** 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'**default:****Description:** Unexpected error**Content:**

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

delete:

Summary: Deactivate SMS Service for a given UE

Operation ID: SMSserviceDeactivation

Tags:

- UEContext (Document)

Parameters:

- name: supi

In: path

Required/Optional: true

Description: Subscriber Permanent Identifier (SUPI)

Schema:

Type: string

Responses:

'204' UE Context for SMS is deleted from SMSF

'400' Invalid Service Request

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'404' Unable to found UE Context for SMS in SMSF

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'503' Service Unavailable

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

/ue-contexts/{supi}/sendsms

Method: Post

Summary: Send SMS payload for a given UE

Operation ID: SendSMS

Tags:

- UEContext (Document)

Parameters:

- name: sup_i

In: path

Required/Optional: true

Description: Subscriber Permanent Identifier (SUPI)

Schema:

Type: string

Request Body:

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/SmsRecordData'

Required/Optional: true

Responses:

'200' SMS payload is received by SMSF, and is being delivered out

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/SmsRecordDeliveryData'

'400' Invalid Service Request

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'403' Unable to deliver SMS at SMSF

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'404' Unable to found UE Context for SMS in SMSF

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'503' Service Unavailable

Content:

application/problem+json:

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

components

securitySchemes

oAuth2ClientCredentials

Type: oauth2

Flows:

clientCredentials:

tokenUrl: '{nrfApiRoot}/oauth2/token'

scopes:

nsmsf-sms: Access to the nsmsf-sms API

schemas

UeSmsContextData

Type: object

Required:

- supi

- amfd

- accessType

Properties:

supi:

Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'

pei:

Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'

amfId:**Reference:** 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'**guamis:****Type:** array**Items:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/Guami'**minItems:** 1**accessType:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/AccessType'**gpsi:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/Gpsi'**ueLocation:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/UserLocation'**ueTimeZone:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/TimeZone'**traceData:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/TraceData'**backupAmfInfo:****Type:** array**Items:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'**minItems:** 1**udmGroupId:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'**routingIndicator:****Type:** string

SmsRecordData

Type: object**Required:**

- smsRecordId
- smsPayloads

Properties:**smsRecordId:****Reference:** '#/components/schemas/RecordId'

smsPayloads:**Type:** array**Items:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'**accessType:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/AccessType'**gpsi:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/Gpsi'**pei:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/Pei'**ueLocation:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/UserLocation'**ueTimeZone:****Reference:** 'TS29571_CommonData.yaml#/components/schemas/TimeZone'

RecordId

Type: string

SmsRecordDeliveryData

Type: object**Required:**

- smsRecordId
- deliveryStatus

Properties:**smsRecordId:****Reference:** '#/components/schemas/RecordId'**deliveryStatus:****Reference:** '#/components/schemas/SmsDeliveryStatus'

SmsDeliveryStatus

Type: string**enum:**

- SMS_DELIVERY_PENDING
- SMS_DELIVERY_COMPLETED
- SMS_DELIVERY_FAILED