



## **Ultra Cloud Core 5G Access and Mobility Management Function, Release 2022.01 - API Reference**

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## About this Guide



**Note** The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. While any existing biased terms are being substituted, exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This preface describes the Ultra Cloud Core 5G Access and Mobility Management Function - API Reference, the document conventions, and the customer support details.

- [Conventions Used, on page ix](#)
- [Contacting Customer Support, on page x](#)

## Conventions Used

The following tables describe the conventions used throughout this documentation.

Notice Type	Description
Information Note	Provides information about important features or instructions.
Caution	Alerts you of potential damage to a program, device, or system.
Warning	Alerts you of potential personal injury or fatality. May also alert you of potential electrical hazards.

Typeface Conventions	Description
Text represented as a screen display	This typeface represents displays that appear on your terminal screen, for example:  Login:

Typeface Conventions	Description
Text represented as commands	<p>This typeface represents commands that you enter, for example:</p> <pre>show ip access-list</pre> <p>This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.</p>
Text represented as a command variable	<p>This typeface represents a variable that is part of a command, for example:</p> <pre>show card slot_number</pre> <p>slot_number is a variable representing the applicable chassis slot number.</p>
Text represented as menu or sub-menu names	<p>This typeface represents menus and sub-menus that you access within a software application, for example:</p> <p>Click the File menu, then click New</p>

## Contacting Customer Support

Use the information in this section to contact customer support.

Refer to the support area of <http://www.cisco.com> for up-to-date product documentation or to submit a service request. A valid username and password are required to access this site. Please contact your Cisco sales or service representative for additional information.



# CHAPTER 1

## Namf\_Communication

---

This service enables an NF to communicate with the UE through N1 NAS messages or with the AN (both UE and non UE specific). The service operations defined below allow the NF to communicate with the UE and the AN. The following are the key functionalities of this NF service.

- Provide service operations for transporting N1 messages to the UE;
- Allow NFs to subscribe and unsubscribe for notifications of specific N1 messages from the UE;
- Allow NFs to subscribe and unsubscribe for notifications about specific information from AN;
- Provide service operations for initiating N2 messages towards the AN;
- Security Context Management; and
- UE information management and transfer (including its security context).

Reference: 3GPP TS 29.518 [14]

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## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** 1.0.0

**Title:** Namf\_Communication

**Description:** AMF Communication Service

## Servers

**URL:** '{apiRoot}/namf-comm/v1'

**Variables:**

**API Root:**

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

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

## Security

```
- {}
- oAuth2Clientcredentials:
  - namf-comm
```

## Paths

### /ue-contexts/{ueContextId}

**put:**

**Summary:** Namf\_Communication CreateUEContext service Operation

**Tags:**

- Individual ueContext (Document)

**Operation ID:** CreateUEContext

**Parameters:**

- **Name:** ueContextId

**In:** path

**Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

'^ (5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)\$'

**Request Body:**

**Content:**

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

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

**binaryDataN1Message:**

**Type:** string

```

    Format: binary
  binaryDataN2Information:
    Type: string
    Format: binary
  binaryDataN2InformationExt1:
    Type: string
    Format: binary
Encoding:
  JSON Data:
    Content Type: application/json
  binaryDataN1Message:
    Content Type: application/vnd.3gpp.5gnas
  Headers:
    Content ID:
      Schema:
        Type: string
  binaryDataN2Information:
    Content Type: application/vnd.3gpp.ngap
  Headers:
    Content ID:
      Schema:
        Type: string
  binaryDataN2InformationExt1:
    Content Type: application/vnd.3gpp.ngap
  Headers:
    Content ID:
      Schema:
        Type: string
Required/Optional: true

Responses:
'201':
  Description: UE context successfully created.
  Headers:
    Location:
      description: 'Contains the URI of the newly created resource,
according to the structure: {apiRoot}/namf-comm/v1/ue-contexts/{ueContextId}'
      Required/Optional: true
      Schema:
        Type: string
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/UeContextCreatedData'
      Multipart/Related: # message with binary body part(s)
      Schema:
        Type: object
        Properties: # Request parts
        JSON Data:
          Reference: '#/components/schemas/UeContextCreatedData'
        binaryDataN1Message:
          Type: string

```

```

        Format: binary
    binaryDataN2Information:
        Type: string
        Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1Message:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:
            Type: string
    binaryDataN2Information:
        Content Type: application/vnd.3gpp.ngap
    Headers:
        Content ID:
        Schema:
            Type: string
'400':
    Description: Bad Request
    Content:
    Application/JSON:
    Schema:
        Reference: '#/components/schemas/UeContextCreateError'
'403':
    Description: Forbidden
    Content:
    Application/JSON:
    Schema:
        Reference: '#/components/schemas/UeContextCreateError'
'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':
    Description: Internal Server Error
    Content:
    Application/JSON:
    Schema:
        Reference: '#/components/schemas/UeContextCreateError'
'503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
    Description: Unexpected error

```

## /ue-contexts/{ueContextId}/release

**Method:** Post

**Summary:** Namf\_Communication ReleaseUEContext service Operation

**Tags:**

- Individual ueContext (Document)

**Operation ID:** ReleaseUEContext

**Parameters:**

- **Name:** ueContextId

**In:** path

**Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)\$

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'204':

**Description:** UE Context successfully released

'400':

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

'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

## /ue-contexts/{ueContextId}/assign-ebi

**Method:** Post

**Summary:** Namf\_Communication EBI Assignment service Operation

**Tags:**

- Individual ueContext (Document)

**Operation ID:** EBIAssignment

**Parameters:**

- **Name:** ueContextId

**In:** path

**Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)\$

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'200':

**Description:** EBI Assignment successfully performed.

**Content:**

**Application/JSON:**

**Schema:**

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

'400':

**Description:** Bad Request

**Content:**

**Application/JSON:**

**Schema:**

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

'403':

**Description:** Forbidden

**Content:**

**Application/JSON:**

**Schema:**

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

'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':**  
**Description:** Internal Server Error  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/AssignEbiError'  
**'503':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /ue-contexts/{ueContextId}/transfer

**Method:** Post

**Summary:** Namf\_Communication UEContextTransfer service Operation

**Tags:**

- Individual ueContext (Document)

**Operation ID:** UEContextTransfer

**Parameters:**

- **Name:** ueContextId

**In:** path

**Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

'^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)\$'

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

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

**binaryDataN1Message:**

**Type:** string

**Format:** binary

**Encoding:**

**JSON Data:**

**Content Type:** application/json

**binaryDataN1Message:**

**Content Type:** application/vnd.3gpp.5gnas

**Headers:**

**Content ID:**  
**Schema:**  
**Type:** string  
**Required/Optional:** true

**Responses:**  
**'200':**  
**Description:** UE context transfer successfully initiated.  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/UeContextTransferRspData'  
**Multipart/Related:** # message with binary body part(s)  
**Schema:**  
**Type:** object  
**Properties:** # Request parts  
**JSON Data:**  
**Reference:** '#/components/schemas/UeContextTransferRspData'  
**binaryDataN2Information:**  
**Type:** string  
**Format:** binary  
**Encoding:**  
**JSON Data:**  
**Content Type:** application/json  
**binaryDataN2Information:**  
**Content Type:** application/vnd.3gpp.ngap  
**Headers:**  
**Content ID:**  
**Schema:**  
**Type:** string

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

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

**'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

## /ue-contexts/{ueContextId}/transfer-update

**Method:** Post

**Summary:** Namf\_Communication RegistrationStatusUpdate service Operation

**Tags:**

- Individual ueContext (Document)

**Operation ID:** RegistrationStatusUpdate

**Parameters:**

- **Name:** ueContextId

**In:** path

**Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)\$'

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'200':

**Description:** UE context transfer status successfully updated.

**Content:**

**Application/JSON:**

**Schema:**

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

'400':

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

'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'

## /ue-contexts/{ueContextId}/n1-n2-messages

**Method:** Post

**Summary:** Namf\_Communication N1N2 Message Transfer (UE Specific) service Operation

**Tags:**

- n1N2Message collection (Document)

**Operation ID:** N1N2MessageTransfer

**Parameters:**

- **Name:** ueContextId

**In:** path

**Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

'^(imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|cid-.{1,255}|.+)\$'

**Request Body:****Content:****Application/JSON:****Schema:**

**Reference:** '#/components/schemas/N1N2MessageTransferReqData'

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

**Reference:** '#/components/schemas/N1N2MessageTransferReqData'

**binaryDataN1Message:**

**Type:** string

**Format:** binary

**binaryDataN2Information:**

**Type:** string

**Format:** binary

**Encoding:****JSON Data:**

**Content Type:** application/json

**binaryDataN1Message:**

**Content Type:** application/vnd.3gpp.5gnas

**Headers:**

**Content ID:**

**Schema:**

**Type:** string

**binaryDataN2Information:**

**Content Type:** application/vnd.3gpp.ngap

**Headers:**

**Content ID:**

**Schema:**  
**Type:** string  
**Required/Optional:** true

**Responses:**

**'202':**  
**Description:** N1N2 Message Transfer accepted.  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N1N2MessageTransferRspData'

**'200':**  
**Description:** N1N2 Message Transfer successfully initiated.  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N1N2MessageTransferRspData'

**'307':**  
**Description:** Temporary Redirect  
**Content:**  
**application/problem+json:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

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

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

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

**'409':**  
**Description:** Conflicts  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N1N2MessageTransferError'

**'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'

**'504':**  
**Description:** Gateway Timeout  
**Content:**  
**Application/JSON:**  
**Schema:**

**Reference:** '#/components/schemas/N1N2MessageTransferError'

**Default:**

**Description:** Unexpected error

**Callbacks:**

**onN1N2TransferFailure:**

**'{\$request.body#/n1n2FailureTxfrNotifURI}':**

**Method:** Post

**Summary:** Namf\_Communication N1N2Transfer Failure Notification service Operation

**Tags:**

- N1N2 Transfer Failure Notification

**Operation ID:** N1N2TransferFailureNotification

**Request Body:**

**Description:** N1N2Transfer Failure Notification

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/N1N2MsgTxfrFailureNotification'

**Responses:**

**'204':**

**Description:** Expected response to a successful callback processing

**'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'

## /ue-contexts/{ueContextId}/n1-n2-messages/subscriptions

**Method:** Post

**Summary:** Namf\_Communication N1N2 Message Subscribe (UE Specific) service Operation

**Tags:**

- N1N2 Subscriptions Collection for Individual UE Contexts (Document)

**Operation ID:** N1N2MessageSubscribe

**Parameters:**

- **Name:** ueContextId
- In:** path
- Description:** UE Context Identifier

**Required/Optional:** true

**Schema:**

**Type:** string

**pattern:**

```

'^((5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

```

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/UE-N1N2-Info-Subscription-Create-Data'

**Required/Optional:** true

**Responses:**

**'201':**

**Description:** N1N2 Message Subscription successfully created.

**Headers:**

**Location:**

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

```

{apiRoot}/namf-comm/v1/{ueContextId}/n1-n2-messages/subscriptions/{subscriptionId}'

```

**Required/Optional:** true

**Schema:**

**Type:** string

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/UE-N1N2-Info-Subscription-Created-Data'

**'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

**Callbacks:**

**onN1N2MessageNotify:**

**'{\$request.body#/n1NotifyCallbackUri}':**

**Method:** Post

**Summary:** Namf\_Communication N1 Message Notify service Operation

**Tags:**

- N1 Message Notify

**Operation ID:** N1MessageNotify

**Request Body:**  
**Description:** N1 Message Notification  
**Content:**  
**Multipart/Related:** # message with binary body part(s)  
**Schema:**  
**Type:** object  
**Properties:** # Request parts  
**JSON Data:**  
**Reference:** '#/components/schemas/N1MessageNotification'  
**binaryDataN1Message:**  
**Type:** string  
**Format:** binary  
**Encoding:**  
**JSON Data:**  
**Content Type:** application/json  
**binaryDataN1Message:**  
**Content Type:** application/vnd.3gpp.5gnas  
**Headers:**  
**Content ID:**  
**Schema:**  
**Type:** string

**Responses:**  
**'204':**  
**Description:** Expected response to a successful callback processing  
**'400':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
**'403':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'  
**'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'  
**'{\$request.body#/n2NotifyCallbackUri}':**

**Method:** Post  
**Summary:** Namf\_Communication N2 Info Notify (UE Specific) service Operation

**Tags:**  
- N2 Info Notify  
**Operation ID:** N2InfoNotify  
**Request Body:**  
**Description:** UE Specific N2 Informaiton Notification  
**Content:**  
**Multipart/Related:** # message with binary body part(s)



**Schema:**

**Type:** object  
**Properties:** # Request parts  
**JSON Data:**  
**Reference:** '#/components/schemas/N2InformationNotification'  
**binaryDataN1Message:**  
**Type:** string  
**Format:** binary  
**binaryDataN2Information:**  
**Type:** string  
**Format:** binary

**Encoding:**

**JSON Data:**  
**Content Type:** application/json  
**binaryDataN1Message:**  
**Content Type:** application/vnd.3gpp.5gnas  
**Headers:**  
**Content ID:**  
**Schema:**  
**Type:** string  
**binaryDataN2Information:**  
**Content Type:** application/vnd.3gpp.ngap  
**Headers:**  
**Content ID:**  
**Schema:**  
**Type:** string

**Responses:**

'204':  
**Description:** Expected response to a successful callback processing  
'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'

**/ue-contexts/{ueContextId}/n1-n2-messages/subscriptions/{subscriptionId}****delete:**

**Summary:** Namf\_Communication N1N2 Message UnSubscribe (UE Specific) service Operation

**Tags:**

- N1N2 Individual Subscription (Document)

**Operation ID:** N1N2MessageUnSubscribe

**Parameters:**

- **Name:** ueContextId
  - In:** path
  - Description:** UE Context Identifier
  - Required/Optional:** true
  - Schema:**
    - Type:** string
    - pattern:**

^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)\$'

- **Name:** subscriptionId
  - In:** path
  - Description:** Subscription Identifier
  - Required/Optional:** true
  - Schema:**
    - Type:** string

**Responses:**

- '204':
  - Description:** N1N2 Message Subscription successfully removed.
- '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'

## /non-ue-n2-messages/transfer

**Method:** Post

**Summary:** Namf\_Communication Non UE N2 Message Transfer service Operation

**Tags:**

- Non UE N2Messages collection (Document)

**Operation ID:** NonUeN2MessageTransfer

**Request Body:**

- Content:**
  - Application/JSON:**
    - Schema:**

**Reference:** '#/components/schemas/N2InformationTransferReqData'  
**Multipart/Related:** # message with binary body part(s)  
**Schema:**  
**Type:** object  
**Properties:** # Request parts  
**JSON Data:**  
**Reference:** '#/components/schemas/N2InformationTransferReqData'  
**binaryDataN2Information:**  
**Type:** string  
**Format:** binary  
**Encoding:**  
**JSON Data:**  
**Content Type:** application/json  
**binaryDataN2Information:**  
**Content Type:** application/vnd.3gpp.ngap  
**Headers:**  
**Content ID:**  
**Schema:**  
**Type:** string  
**Required/Optional:** true

**Responses:**

**'200':**  
**Description:** Non UE N2 Message Transfer successfully initiated.  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N2InformationTransferRspData'

**'400':**  
**Description:** Bad Request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N2InformationTransferError'

**'403':**  
**Description:** Forbidden  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N2InformationTransferError'

**'404':**  
**Description:** Not Found  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/N2InformationTransferError'

**'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':
  Description: Internal Server Error
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/N2InformationTransferError'
'503':
  Description: Service Unavailable
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/N2InformationTransferError'
Default:
  Description: Unexpected error

```

## /non-ue-n2-messages/subscriptions

**Method:** Post

**Summary:** Namf\_Communication Non UE N2 Info Subscribe service Operation

**Tags:**

- Non UE N2Messages Subscriptions collection (Document)

**Operation ID:** NonUeN2InfoSubscribe

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/NonUeN2InfoSubscriptionCreateData'

**Required/Optional:** true

**Responses:**

'201':

**Description:** Non UE N2 Info Subscription successfully created.

**Headers:**

**Location:**

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

{apiRoot}/namf-comm/v1/non-ue-n2-messages/subscriptions/{n2NotifySubscriptionId}'

**Required/Optional:** true

**Schema:**

**Type:** string

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/NonUeN2InfoSubscriptionCreatedData'

'400':

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

'403':

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

```

'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
Callbacks:
  onN2InfoNotify:
    '{$request.body#/n2NotifyCallbackUri}':
      Method: Post
      Summary: Namf_Communication Non UE N2 Info Notify service Operation

      Tags:
        - Non UE N2 Info Notify
      Operation ID: NonUeN2InfoNotify
      Request Body:
        Description: Non UE N2 Informaiton Notification
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/N2InformationNotification'
            Multipart/Related: # message with binary body part(s)
            Schema:
              Type: object
              Properties: # Request parts
                JSON Data:
                  Reference: '#/components/schemas/N2InformationNotification'
                binaryDataN2Information:
                  Type: string
                  Format: binary
            Encoding:
              JSON Data:
                Content Type: application/json
                binaryDataN2Information:
                  Content Type: application/vnd.3gpp.ngap
              Headers:
                Content ID:
                  Schema:
                    Type: string

      Responses:
        '204':
          Description: Expected response to a successful callback processing
        '400':

```

**/non-ue-n2-messages/subscriptions/{n2NotifySubscriptionId}**

**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'

## **/non-ue-n2-messages/subscriptions/{n2NotifySubscriptionId}**

### **delete:**

**Summary:** Namf\_Communication Non UE N2 Info UnSubscribe service Operation

### **Tags:**

- Non UE N2 Message Notification Individual Subscription (Document)

**Operation ID:** NonUeN2InfoUnSubscribe

### **Parameters:**

- **Name:** n2NotifySubscriptionId  
**In:** path  
**Description:** N2 info Subscription Identifier  
**Required/Optional:** true  
**Schema:**  
**Type:** string

### **Responses:**

**'204':**  
**Description:** Non UE N2 INfo Subscription successfully removed.  
**'400':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
**'429':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/429'  
**'500':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
**'503':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'

## **/subscriptions**

**Method:** Post

**Summary:** Namf\_Communication AMF Status Change Subscribe service Operation

### **Tags:**

- subscriptions collection (Document)

**Operation ID:** AMFStatusChangeSubscribe

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'201':

**Description:** N1N2 Message Subscription successfully created.

**Headers:**

**Location:**

**description:** 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/namf-comm/v1/subscriptions/{subscriptionId}'

**Required/Optional:** true

**Schema:**

**Type:** string

**Content:**

**Application/JSON:**

**Schema:**

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

'400':

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

'403':

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

'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

**Callbacks:**

**onAmfStatusChange:**

'{\$request.body#/amfStatusUri}':

**Method:** Post

**Summary:** Amf Status Change Notify service Operation

**Tags:**

- Amf Status Change Notify

**Operation ID:** AmfStatusChangeNotify

**Request Body:**

**Description:** Amf Status Change Notification

**Content:**

**Application/JSON:****Schema:****Reference:** '#/components/schemas/AmfStatusChangeNotification'**Responses:****'204':****Description:** Expected response to a successful callback processing**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'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'

## /subscriptions/{subscriptionId}

**delete:****Summary:** Namf\_Communication AMF Status Change UnSubscribe service Operation**Tags:**

- individual subscription (Document)

**Operation ID:** AMFStatusChangeUnSubscribe**Parameters:**- **Name:** subscriptionId**In:** path**Description:** AMF Status Change Subscription Identifier**Required/Optional:** true**Schema:****Type:** string**Responses:****'204':****Description:** N1N2 Message Subscription successfully removed.**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'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

**put:**

**Summary:** Namf\_Communication AMF Status Change Subscribe Modify service Operation

**Tags:**

- individual subscription (Document)

**Operation ID:** AMFStatusChangeSubscribeModify

**Parameters:**

- **Name:** subscriptionId
- In:** path
- Description:** AMF Status Change Subscription Identifier
- Required/Optional:** true
- Schema:**
- Type:** string

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

**'202':**

**Description:** N1N2 Message Subscription successfully updated.

**Content:**

**Application/JSON:**

**Schema:**

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

**'400':**

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

**'403':**

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

**'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

**Callbacks:**

```

OnAmfStatusChange:
  '{$request.body#/amfStatusUri}':
    Method: Post
    Summary: Amf Status Change Notify service Operation

    Tags:
      - Amf Status Change Notify
    Operation ID: AmfStatusChangeNOtify
    Request Body:
      Description: Amf Status Change Notification
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/AmfStatusChangeNotification'

    Responses:
      '204':
        Description: Expected response to a successful callback processing
      '400':
        Reference: 'TS29571_CommonData.yaml#/components/responses/400'
      '403':
        Reference: 'TS29571_CommonData.yaml#/components/responses/403'
      '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'

```

## Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          namf-comm: Access to the Namf_Communication API

schemas:
  # STRUCTURED DATA TYPES
  SubscriptionData:
    Type: object

```

```
Properties:
  amfStatusUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  guamiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    minItems: 1
Required:
- amfStatusUri
AmfStatusChangeNotification:
Type: object
Properties:
  amfStatusInfoList:
    Type: array
    Items:
      Reference: '#/components/schemas/AmfStatusInfo'
    minItems: 1
Required:
- amfStatusInfo
AmfStatusInfo:
Type: object
Properties:
  guamiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    minItems: 1
  statusChange:
    Reference: '#/components/schemas/StatusChange'
  targetAmfRemoval:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AmfName'
  targetAmfFailure:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AmfName'
Required:
- guamis
- statusChange
AssignEbiData:
Type: object
Properties:
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  arpList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
    minItems: 1
  releasedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
```

```

Required:
  - pduSessionId
AssignedEbiData:
Type: object
Properties:
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  assignedEbiList:
    Type: array
    Items:
      Reference: 'TS29502_Nsmf_PDUSession.yaml#/components/schemas/EbiArpMapping'
    minItems: 0
  failedArpList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
    minItems: 1
  releasedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
Required:
  - pduSessionId
  - assignedEbis
AssignEbiFailed:
Type: object
Properties:
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  failedArpList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
    minItems: 1
Required:
  - pduSessionId
UEContextRelease:
Type: object
Properties:
  supi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  unauthenticatedSupi:
    Type: boolean
    Default: false
  ngapCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgapCause'
Required:
  - ngapCause
N2InformationTransferReqData:
Type: object
Properties:

```

```

tailList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
  minItems: 1
ratSelector:
  Reference: '#/components/schemas/RatSelector'
ecgiList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ecgi'
  minItems: 1
ncgiList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ncgi'
  minItems: 1
globalRanNodeList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
  minItems: 1
n2Information:
  Reference: '#/components/schemas/N2InfoContainer'
supportedFeatures:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
Required:
  - n2Information
NonUeN2InfoSubscriptionCreateData:
Type: object
Properties:
  globalRanNodeList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
    minItems: 1
  anTypeList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    minItems: 1
  n2InformationClass:
    Reference: '#/components/schemas/N2InformationClass'
  n2NotifyCallbackUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  nfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
Required:
  - n2InformationClass
  - n2NotifyCallbackUri

```

```

NonUeN2InfoSubscriptionCreatedData:
  Type: object
  Properties:
    n2NotifySubscriptionId:
      Type: string
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - n2NotifySubscriptionId
UeN1N2InfoSubscriptionCreateData:
  Type: object
  Properties:
    n2InformationClass:
      Reference: '#/components/schemas/N2InformationClass'
    n2NotifyCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    n1MessageClass:
      Reference: '#/components/schemas/N1MessageClass'
    n1NotifyCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    nfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
UeN1N2InfoSubscriptionCreatedData:
  Type: object
  Properties:
    n1n2NotifySubscriptionId:
      Type: string
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - n1n2NotifySubscriptionId
N2InformationNotification:
  Type: object
  Properties:
    n2NotifySubscriptionId:
      Type: string
    n2InfoContainer:
      Reference: '#/components/schemas/N2InfoContainer'
    toReleaseSessionList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
      minItems: 1
    lcsCorrelationId:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CorrelationID'
    notifyReason:
      Reference: '#/components/schemas/N2InfoNotifyReason'
  Required:
    - n2NotifySubscriptionId
N2InfoContainer:

```

```

Type: object
Properties:
  n2InformationClass:
    Reference: '#/components/schemas/N2InformationClass'
  smInfo:
    Reference: '#/components/schemas/N2SmInformation'
  ranInfo:
    Reference: '#/components/schemas/N2RanInformation'
  nrppaInfo:
    Reference: '#/components/schemas/NrppaInformation'
  pwsInfo:
    Reference: '#/components/schemas/PwsInformation'
Required:
  - n2InformationClass
N1MessageNotification:
Type: object
Properties:
  n1NotifySubscriptionId:
    Type: string
  n1MessageContainer:
    Reference: '#/components/schemas/N1MessageContainer'
  lcsCorrelationId:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CorrelationID'
  registrationCtxtContainer:
    Reference: '#/components/schemas/RegistrationContextContainer'
Required:
  - n1MessageContainer
N1MessageContainer:
Type: object
Properties:
  n1MessageClass:
    Reference: '#/components/schemas/N1MessageClass'
  n1MessageContent:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  nfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
Required:
  - n1MessageClass
  - n1MessageContent
N1N2MessageTransferReqData:
Type: object
Properties:
  n1MessageContainer:
    Reference: '#/components/schemas/N1MessageContainer'
  n2InfoContainer:
    Reference: '#/components/schemas/N2InfoContainer'
  skipInd:
    Type: boolean
    Default: false
  lastMsgIndication:
    Type: boolean
  pduSessionId:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  lcsCorrelationId:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CorrelationID'
  ppi:
    Reference: '#/components/schemas/Ppi'
  arp:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
  5qi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/5Qi'
  nln2FailureTxfNotifURI:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  smfReallocationInd:
    Type: boolean
    Default: false
  areaOfValidity:
    Reference: '#/components/schemas/AreaOfValidity'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
N1N2MessageTransferRspData:
  Type: object
  Properties:
    cause:
      Reference: '#/components/schemas/N1N2MessageTransferCause'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - cause
RegistrationContextContainer:
  Type: object
  Properties:
    ueContext:
      Reference: '#/components/schemas/UeContext'
    localTimeZone:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
    anType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    anN2ApId:
      Type: integer
    ranNodeId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
    initialAmfName:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AmfName'
    userLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    rrcEstCause:
      Type: string
      Pattern: '^[0-9a-fA-F]+$'
    ueContextRequest:
      Type: boolean
      Default: false
    anN2IPv4Addr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/IPv4Addr'

```



```

anN2IPv6Addr:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
allowedNssai:
  Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/AllowedNssai'
configuredNssai:
  Type: array
  Items:
    Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/ConfiguredSnssai'

  minItems: 1
rejectedNssaiInPlmn:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  minItems: 1
rejectedNssaiInTa:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  minItems: 1
Required:
- ueContext
- anType
- anN2ApId
- ranNodeId
- initialAmfName
- userLocation
AreaOfValidity:
Type: object
Properties:
  tailList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
    minItems: 0
Required:
- taList
UeContextTransferReqData:
Type: object
Properties:
  reason:
    Reference: '#/components/schemas/TransferReason'
  accessType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
  plmnId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
  regRequest:
    Reference: '#/components/schemas/N1MessageContainer'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
Required:
- reason
- accessType

```

**UeContextTransferRspData:****Type:** object**Properties:****ueContext:****Reference:** '#/components/schemas/UeContext'**ueRadioCapability:****Reference:** '#/components/schemas/N2InfoContent'**supportedFeatures:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'**Required:**

- ueContext

**UeContext:****Type:** object**Properties:****supi:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'**supiUnauthInd:****Type:** boolean**gpsiList:****Type:** array**Items:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'**minItems:** 1**pei:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Pei'**udmGroupId:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfGroupId'**ausfGroupId:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfGroupId'**routingIndicator:****Type:** string**groupList:****Type:** array**Items:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/GroupId'**minItems:** 1**drxParameter:****Reference:** '#/components/schemas/DrxParameter'**subRfsp:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/RfspIndex'**usedRfsp:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/RfspIndex'**subUeAmbr:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ambr'**smsSupport:****Reference:** '#/components/schemas/SmsSupport'**smsfId:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'**seafData:****Reference:** '#/components/schemas/SeafData'**5gMmCapability:****Reference:** '#/components/schemas/5GMmCapability'

```

pcfId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
pcfAmPolicyUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
amPolicyReqTriggerList:
  Type: array
  Items:
    Reference: '#/components/schemas/AMPolicyReqTrigger'
  minItems: 1
hpcfId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
restrictedRatList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  minItems: 1
forbiddenAreaList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Area'
  minItems: 1
serviceAreaRestriction:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
restrictedCoreNwTypeList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/CoreNetworkType'
  minItems: 1
eventSubscriptionList:
  Type: array
  Items:
    Reference:
'TS29518_Namf_EventExposure.yaml#/components/schemas/AmfEventSubscription'
  minItems: 1
mmContextList:
  Type: array
  Items:
    Reference: '#/components/schemas/MmContext'
  minItems: 1
  maxItems: 2
sessionContextList:
  Type: array
  Items:
    Reference: '#/components/schemas/PduSessionContext'
  minItems: 1
traceData:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
N2SmInformation:
  Type: object
  Properties:
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'

```

```

n2InfoContent:
  Reference: '#/components/schemas/N2InfoContent'
sNssai:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
subjectToHo:
  Type: boolean
Required:
  - pduSessionId
N2InfoContent:
Type: object
Properties:
  ngapMessageType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UInteger'
  ngapIeType:
    Reference: '#/components/schemas/NgapIeType'
  ngapData:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
Required:
  - ngapIeType
  - ngapData
NrppaInformation:
Type: object
Properties:
  nfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  nrppaPdu:
    Reference: '#/components/schemas/N2InfoContent'
Required:
  - nfId
  - nrppaPdu
PwsInformation:
Type: object
Properties:
  messageIdentifier:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
  serialNumber:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
  pwsContainer:
    Reference: '#/components/schemas/N2InfoContent'
  sendRanResponse:
    Type: boolean
    Default: false
  omcId:
    Reference: '#/components/schemas/OmcIdentifier'
Required:
  - messageIdentifier
  - serialNumber
  - pwsContainer
N1N2MsgTxfrFailureNotification:
Type: object
Properties:
  cause:
    Reference: '#/components/schemas/N1N2MessageTransferCause'

```

```

    n1n2MsgDataUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    Required:
      - cause
      - n1n2MsgDataUri
  N1N2MessageTransferError:
    Type: object
    Properties:
      error:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
      errInfo:
        Reference: '#/components/schemas/N1N2MsgTxfrErrDetail'
    Required:
      - error
  N1N2MsgTxfrErrDetail:
    Type: object
    Properties:
      retryAfter:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/UInteger'
      highestPrioArp:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
  N2InformationTransferRspData:
    Type: object
    Properties:
      result:
        Reference: '#/components/schemas/N2InformationTransferResult'
      pwsRspData:
        Reference: '#/components/schemas/PWSResponseData'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - result
  MmContext:
    Type: object
    Properties:
      accessType:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
      nasSecurityMode:
        Reference: '#/components/schemas/NasSecurityMode'
      nasDownlinkCount:
        Reference: '#/components/schemas/NasCount'
      nasUplinkCount:
        Reference: '#/components/schemas/NasCount'
      ueSecurityCapability:
        Reference: '#/components/schemas/UeSecurityCapability'
      s1UeNetworkCapability:
        Reference: '#/components/schemas/S1UeNetworkCapability'
      allowedNssai:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1

```

```

nssaiMappingList:
  Type: array
  Items:
    Reference: '#/components/schemas/NssaiMapping'
  minItems: 1
nsInstanceList:
  Type: array
  Items:
    Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/NsiId'
  minItems: 1
expectedUEbehavior:
  Reference: '#/components/schemas/ExpectedUeBehavior'
Required:
  - accessType
SeafData:
Type: object
Properties:
  ngKsi:
    Reference: '#/components/schemas/NgKsi'
  keyAmf:
    Reference: '#/components/schemas/KeyAmf'
  nh:
    Type: string
    Pattern: '^ [A-Za-f0-9]+ $'
  ncc:
    Type: integer
    Minimum: 0
    Maximum: 7
  keyAmfChangeInd:
    Type: boolean
  keyAmfHDerivationInd:
    Type: boolean
Required:
  - ngKsi
  - keyAmf
NasSecurityMode:
Type: object
Properties:
  integrityAlgorithm:
    Reference: '#/components/schemas/IntegrityAlgorithm'
  cipheringAlgorithm:
    Reference: '#/components/schemas/CipheringAlgorithm'
Required:
  - integrityAlgorithm
  - cipheringAlgorithm
PduSessionContext:
Type: object
Properties:
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  smContextRef:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'

```

```

sNssai:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
dnn:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
accessType:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
allocatedEbiList:
  Type: array
  Items:
    Reference: 'TS29502_Nsmf_PDUSession.yaml#/components/schemas/EbiArpMapping'
  minItems: 1
hsmfId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
vsmfId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
nsInstance:
  Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/NsiId'
Required:
- pduSessionId
- smContextRef
- sNssai
- dnn
- accessType
- allocatedEbiList
NssaiMapping:
Type: object
Properties:
  mappedSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  hSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
Required:
- mappedSnssai
- hSnssai
UeRegStatusUpdateReqData:
Type: object
Properties:
  transferStatus:
    Reference: '#/components/schemas/UeContextTransferStatus'
  toReleaseSessionList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    minItems: 1
  pcfReselectedInd:
    Type: boolean
Required:
- transferStatus
UeRegStatusUpdateRspData:
Type: object
Properties:
  regStatusTransferComplete:
    Type: boolean

```

```

Required:
  - regStatusTransferComplete
AssignEbiError:
Type: object
Properties:
  error:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  failureDetails:
    Reference: '#/components/schemas/AssignEbiFailed'
Required:
  - error
  - failureDetails
UeContextCreateData:
Type: object
Properties:
  ueContext:
    Reference: '#/components/schemas/UeContext'
  targetId:
    Reference: '#/components/schemas/NgRanTargetId'
  sourceToTargetData:
    Reference: '#/components/schemas/N2InfoContent'
  pduSessionList:
    Type: array
    Items:
      Reference: '#/components/schemas/N2SmInformation'
    minItems: 1
  n2NotifyUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  ueRadioCapability:
    Reference: '#/components/schemas/N2InfoContent'
  ngapCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
Required:
  - ueContext
  - targetId
  - sourceToTargetData
  - pduSessions
UeContextCreatedData:
Type: object
Properties:
  ueContext:
    Reference: '#/components/schemas/UeContext'
  targetToSourceData:
    Reference: '#/components/schemas/N2InfoContent'
  pduSessionList:
    Type: array
    Items:
      Reference: '#/components/schemas/N2SmInformation'
    minItems: 1
  ngapCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'

```



```

failedSessionList:
  Type: array
  Items:
    Reference: '#/components/schemas/N2SmInformation'
  minItems: 1
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  pcfReselectedInd:
    Type: boolean
Required:
  - ueContext
  - targetToSourceData
  - pduSessions
UeContextCreateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    ngapCause:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NgapCause'
  Required:
  - error
NgRanTargetId:
  Type: object
  Properties:
    ranNodeId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
    tai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
  Required:
  - ranNodeId
  - tai
PWSResponseData:
  Type: object
  Properties:
    ngapMessageType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UInteger'
    serialNumber:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UInt16'
    messageIdentifier:
      Type: integer
    unknownTaiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
      minItems: 1
  Required:
  - ngapMessageType
  - serialNumber
  - messageIdentifier
PWSErrorData:
  Type: object
  Properties:

```

```
    namfCause:
      Type: integer
    Required:
      - namfCause
  N2InformationTransferError:
    Type: object
    Properties:
      error:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
      pwdErrorInfo:
        Reference: '#/components/schemas/PWSErrorData'
    Required:
      - error
  NgKsi:
    Type: object
    Properties:
      tsc:
        Reference: '#/components/schemas/ScType'
      ksi:
        Type: integer
        Minimum: 0
        Maximum: 6
    Required:
      - tsc
      - ksi
  KeyAmf:
    Type: object
    Properties:
      keyType:
        Reference: '#/components/schemas/KeyAmfType'
      keyVal:
        Type: string
    Required:
      - keyType
      - keyVal
  ExpectedUeBehavior:
    Type: object
    Properties:
      expMoveTrajectory:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
        minItems: 1
      validityTime:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    Required:
      - expMoveTrajectory
      - validityTime
  N2RanInformation:
    Type: object
    Properties:
      n2InfoContent:
        Reference: '#/components/schemas/N2InfoContent'
```

```

    Required:
      - n2InfoContent
# SIMPLE DATA TYPES
EpsBearerId:
  Type: integer
  Minimum: 0
  Maximum: 15
Ppi:
  Type: integer
  Minimum: 0
  Maximum: 7
NasCount:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/UInteger'
5GmCapability:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
UeSecurityCapability:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
S1UeNetworkCapability:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
DrxParameter:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
OmcIdentifier:
  Type: string
# ENUMERATIONS
StatusChange:
  anyOf:
    - type: string
      enum:
        - AMF_UNAVAILABLE
        - AMF_AVAILABLE
    - type: string
N2InformationClass:
  anyOf:
    - type: string
      enum:
        - SM
        - NRPPa
        - PWS
        - PWS-BCAL
        - PWS-RF
        - RAN
    - type: string
N1MessageClass:
  anyOf:
    - type: string
      enum:
        - 5GMM
        - SM
        - LPP
        - SMS
        - UPDP
    - type: string
N1N2MessageTransferCause:
  anyOf:
    - type: string
      enum:

```

- ATTEMPTING\_TO\_REACH\_UE
- N1\_N2\_TRANSFER\_INITIATED
- WAITING\_FOR\_ASYNCHRONOUS\_TRANSFER
- UE\_NOT\_RESPONDING
- N1\_MSG\_NOT\_TRANSFERRED
- UE\_NOT\_REACHABLE\_FOR\_SESSION

- type: string

**UeContextTransferStatus:**

**anyOf:**

- type: string

**enum:**

- TRANSFERRED
- NOT\_TRANSFERRED

- type: string

**N2InformationTransferResult:**

**anyOf:**

- type: string

**enum:**

- N2\_INFO\_TRANSFER\_INITIATED

- type: string

**CipheringAlgorithm:**

**anyOf:**

- type: string

**enum:**

- NEA0
- NEA1
- NEA2
- NEA3

- type: string

**IntegrityAlgorithm:**

**anyOf:**

- type: string

**enum:**

- NIA0
- NIA1
- NIA2
- NIA3

- type: string

**SmsSupport:**

**anyOf:**

- type: string

**enum:**

- 3GPP
- NON\_3GPP
- BOTH
- NONE

- type: string

**ScType:**

**anyOf:**

- type: string

**enum:**

- NATIVE
- MAPPED

- type: string

**KeyAmfType:**

**anyOf:**

- type: string

**enum:**

- KAMF

```

    - KPRIMEAMF
  - type: string
TransferReason:
  anyOf:
  - type: string
    enum:
    - INIT_REG
    - MOBI_REG
    - MOBI_REG_UE_VALIDATED
  - type: string
AMPolicyReqTrigger:
  anyOf:
  - type: string
    enum:
    - LOCATION_CHANGE
    - PRA_CHANGE
    - SARI_CHANGE
    - RFSP_INDEX_CHANGE
  - type: string
RatSelector:
  anyOf:
  - type: string
    enum:
    - E-UTRA
    - NR
  - type: string
NgapIeType:
  anyOf:
  - type: string
    enum:
    - PDU_RES_SETUP_REQ
    - PDU_RES_REL_CMD
    - PDU_RES_MOD_REQ
    - HANDOVER_CMD
    - HANDOVER_REQUIRED
    - HANDOVER_PREP_FAIL
    - SRC_TO_TAR_CONTAINER
    - TAR_TO_SRC_CONTAINER
    - RAN_STATUS_TRANS_CONTAINER
    - SON_CONFIG_TRANSFER
    - NRPPA_PDU
    - UE_RADIO_CAPABILITY
  - type: string
N2InfoNotifyReason:
  anyOf:
  - type: string
    enum:
    - HANDOVER_COMPLETED
  - type: string

```

## External Docs

**Description:** 3GPP TS 29.518 V15.2.0; 5G System; Access and Mobility Management Services  
**URL:** 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.518/'





## CHAPTER 2

# Namf\_MT

---

Namf\_MT service allows a NF to request information related to capabilities to send MT signaling or data to a target UE. The following are the key functionalities of this NF service.

- Paging UE if UE is in IDLE state and respond other NF after the UE enters CM-CONNECTED state.
- Response to the requester NF if UE is in CONNECTED state.
- Providing the terminating domain selection information for IMS voice to the consumer NF
- [OpenAPI, on page 45](#)
- [Info, on page 45](#)
- [Servers, on page 45](#)
- [Security, on page 46](#)
- [Paths, on page 46](#)
- [Components, on page 48](#)
- [External Docs, on page 50](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** 1.0.2

**Title:** Namf\_MT

**Description:** |

AMF Mobile Termination Service

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## Servers

**URL:** '{apiRoot}/namf-mt/v1'

**Variables:****API Root:****Default:** https://example.com**Description:** apiRoot as defined in subclause subclause 4.4 of 3GPP TS 29.501

## Security

```
- {}
- oAuth2ClientCredentials:
  - namf-mt
```

## Paths

```
'/ue-contexts/{ueContextId}':
```

**get:****Summary:** Namf\_MT Provide Domain Selection Info service Operation**Tags:**

- ueContext (Document)

**Operation ID:** Provide Domain Selection Info**Parameters:**- **Name:** ueContextId**In:** path**Description:** UE Context Identifier**Required/Optional:** true**Schema:****Type:** string**pattern:** '^(imsi-[0-9]{5,15}|nai-.+|.+)\$'- **Name:** info-class**In:** query**Description:** UE Context Information Class**Schema:****Reference:** '#/components/schemas/UeContextInfoClass'- **Name:** supported-features**In:** query**Description:** Supported Features**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'**Responses:**

'200':

**Description:** Requested UE Context Information returned**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/UeContextInfo'

'307':



**Description:** Temporary Redirect

**Content:**  
**application/problem+json:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

**Headers:**  
**Location:**  
**Description:** 'The URI of the resource located on the target NF Service Consumer (e.g. AMF) to which the request is redirected'  
**Required/Optional:** true  
**Schema:**  
**Type:** string

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

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

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

**'414':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/414'

**'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

## /ue-contexts/{ueContextId}/ue-reachind

**put:**

**Summary:** Namf\_MT EnableUERachability service Operation

**Tags:**  
- ueReachInd (Document)

**Operation ID:** EnableUeReachability

**Parameters:**  
- **Name:** ueContextId  
**In:** path  
**Description:** UE Context Identifier  
**Required/Optional:** true  
**Schema:**  
**Type:** string

**Request Body:**  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/EnableUeReachabilityReqData'  
**Required/Optional:** true

```

Responses:
  '200':
    Description: UE has become reachable as desired
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/EnableUeReachabilityRspData'
  '307':
    Description: Temporary Redirect
    Content:
      application/problem+json:
        Schema:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    Headers:
      Location:
        Description: 'The URI of the resource located on the target NF Service Consumer
(e.g. AMF) to which the request is redirected'
        Required/Optional: true
        Schema:
          Type: string
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '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'
  '504':
    Reference: 'TS29571_CommonData.yaml#/components/responses/504'
Default:
  Description: Unexpected error

```

## Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2

```

```

Flows:
  clientCredentials:
    tokenUrl: '{nrfApiRoot}/oauth2/token'
    scopes:
      namf-mt: Access to the Namf_MT API

schemas:
  EnableUeReachabilityReqData:
    Type: object
    Properties:
      reachability:
        Reference: 'TS29518_Namf_EventExposure.yaml#/components/schemas/UeReachability'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - reachability
  EnableUeReachabilityRspData:
    Type: object
    Properties:
      reachability:
        Reference: 'TS29518_Namf_EventExposure.yaml#/components/schemas/UeReachability'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - reachability
  UeContextInfo:
    Type: object
    Properties:
      supportVoPS:
        Type: boolean
      supportVoPSn3gpp:
        Type: boolean
      lastActTime:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
      accessType:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
      ratType:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  UeContextInfoClass:
    anyOf:
      - type: string
    enum:
      - TADS
    - type: string

```

## External Docs

**Description:** 3GPP TS 29.518 V15.3.0; 5G System; Access and Mobility Management Services

**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.518/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.518/)'



## CHAPTER 3

# Nausf\_UEAuthentication

---

The Authentication Server Function (AUSF) acts as NF Service Producer. It provides UE authentication service to the requester NF. The NF Service Consumer is the AMF.

For this service, the following service operations are defined

- Authenticate

This service permits to authenticate the UE and to provide one or more master keys which are used by the AMF to derived subsequent keys.

Reference: 3GPP TS 33.501 v15.5.0

- [OpenAPI, on page 51](#)
- [Info, on page 51](#)
- [Servers, on page 51](#)
- [Security, on page 52](#)
- [Paths, on page 52](#)
- [Components, on page 55](#)
- [External Docs, on page 57](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** 1.0.0

**Title:** AUSF API

**Description:** OpenAPI specification for AUSF

## Servers

**URL:** '{apiRoot}/nausf-auth/v1'

**Variables:****API Root:****Default:** https://example.com**Description:** apiRoot as defined in subclause subclause 4.4 of 3GPP TS 29.501.

## Security

```

- {}
- oAuth2ClientCredentials:
  - nausf-auth

```

## Paths

### /ue-authentications

**Method:** Post**Request Body:****Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/AuthenticationInfo'**Required/Optional:** true**Responses:****'201':****Description:** UEAuthenticationCtx**Content:****application/3gppHal+json:****Schema:****Reference:** '#/components/schemas/UEAuthenticationCtx'**Headers:****Location:****description:** 'Contains the URI of the newly created resource according to the structure: {apiRoot}/nausf-auth/v1/ue-authentications/{authCtxId}'**Required/Optional:** true**Schema:****Type:** string**'400':****Description:** Bad Request from the AMF**Content:****application/problem+json:****Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'**'403':****Description:** Forbidden due to serving network not authorized**Content:**

```
    application/problem+json:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  '500':
    Description: Internal Server Error
    Content:
      application/problem+json:
        Schema:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
```

## /ue-authentications/{authCtxId}/5g-aka-confirmation

put:

**Parameters:**

```
- Name: authCtxId
  In: path
  Required/Optional: true
  Schema:
    Type: string
```

**Request Body:**

```
Content:
  Application/JSON:
    Schema:
      Reference: '#/components/schemas/ConfirmationData'
```

**Responses:**

```
'200':
  Description: Request processed (EAP success or Failure)
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/ConfirmationDataResponse'
'400':
  Description: Bad Request
  Content:
    application/problem+json:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
'500':
  Description: Internal Server Error
  Content:
    application/problem+json:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
```

## /ue-authentications/{authCtxId}/eap-session

**Method:** Post

**Operation ID:** EapAuthMethod

**Parameters:**

- **Name:** authCtxId
  - In:** path
  - Required/Optional:** true
  - Schema:**
    - Type:** string

**Request Body:**

- Content:**
  - Application/JSON:**
    - Schema:**
      - Reference:** '#/components/schemas/EapSession'

**Responses:**

- '200':
  - Description:** Use to handle or close the EAP session
  - Content:**
    - Application/JSON:**
      - Schema:**
        - Reference:** '#/components/schemas/EapSession'
    - application/3gppHal+json:**
      - Schema:**
        - Type:** object
        - Properties:**
          - eapPayload:**
            - Reference:** '#/components/schemas/EapPayload'
          - \_links:**
            - Type:** object
            - description:** 'URI : /{eapSessionUri}'
            - additionalProperties:**
              - Reference:**
                - 'TS29571\_CommonData.yaml#/components/schemas/LinksValueSchema'
              - minProperties:** 1
        - Required/Optional:**
          - eapPayload
          - \_links

- '400':
  - Description:** Bad Request
  - Content:**
    - application/problem+json:**
      - Schema:**
        - Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

- '500':
  - Description:** Internal Server Error
  - Content:**
    - application/problem+json:**
      - Schema:**
        - Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'



# Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nausf-auth: Access to Nausf_UEAuthentication API

schemas:
  AuthenticationInfo:
    Type: object
    Properties:
      supiOrSuci:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/SupiOrSuci'
      servingNetworkName:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
      resynchronizationInfo:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ResynchronizationInfo'
      traceData:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
    Required:
      - supiOrSuci
      - servingNetworkName
  UEAuthenticationCtx:
    Type: object
    Properties:
      authType:
        Reference: '#/components/schemas/AuthType'
      5gAuthData:
        oneOf:
          - $ref: '#/components/schemas/Av5gAka'
          - $ref: '#/components/schemas/EapPayload'
      _links:
        Type: object
        additionalProperties:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/LinksValueSchema'
      servingNetworkName:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
    Required:
      - authType
      - 5gAuthData
      - _links
  Av5gAka:
    Type: object
    Required:
      - rand
      - hxresStar
      - autn

```

```

Properties:
  rand:
    Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/Rand'
  hxresStar:
    Reference: '#/components/schemas/HxresStar'
  autn:
    Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/Autn'
ConfirmationData:
  Type: object
  Required:
  - resStar
  Properties:
    resStar:
      Reference: '#/components/schemas/ResStar'
ConfirmationDataResponse:
  Type: object
  Properties:
    authResult:
      Reference: '#/components/schemas/AuthResult'
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    kseaf:
      Reference: '#/components/schemas/Kseaf'
  Required:
  - authResult
EapSession:
  Type: object
  Properties:
    eapPayload:
      Reference: '#/components/schemas/EapPayload'
    kSeaf:
      Reference: '#/components/schemas/Kseaf'
    _links:
      Type: object
      additionalProperties:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/LinksValueSchema'
    authResult:
      Reference: '#/components/schemas/AuthResult'
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  Required:
  - eapPayload
AuthResult:
  Type: string
  enum:
  - AUTHENTICATION_SUCCESS
  - AUTHENTICATION_FAILURE
  - AUTHENTICATION_ONGOING
EapPayload:
  Type: string
  format: base64
  Description: contains an EAP packet
Kseaf:

```

```
    Type: string
    Pattern: '[A-Fa-f0-9]{64}'
  ResStar:
    Type: string
    Pattern: '[A-Fa-f0-9]{32}'
  HxresStar:
    Type: string
    Pattern: "[A-Fa-f0-9]{32}"
  AuthType:
    anyOf:
      - type: string
        enum:
          - 5G_AKA
          - EAP_AKA_PRIME
          - EAP_TLS
      - type: string
```

## External Docs

**Description:** 3GPP TS 29.509 V15.2.0; 5G System; 3GPP TS Authentication Server services.

**URL:** [http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.509](http://www.3gpp.org/ftp/Specs/archive/29_series/29.509)





## CHAPTER 4

# Nnrf\_NFDiscovery

---

The Nnrf\_NFDiscovery service allows a Network Function Instance to discover services offered by other Network Function Instances, by querying the local NRF.

It also allows an NRF in a PLMN to re-issue a discovery request towards an NRF in another PLMN (e.g., the HPLMN of a certain UE).

Reference: 3GPP TS 29.510 version 15.0.0 Release 15

- [OpenAPI, on page 59](#)
- [Info, on page 59](#)
- [Servers, on page 59](#)
- [Security, on page 60](#)
- [Paths, on page 60](#)
- [Components, on page 65](#)
- [External Docs, on page 68](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '1.0.0'  
**Title:** 'NRF NFDiscovery Service'  
**Description:** 'NRF NFDiscovery Service'

## Servers

**URL:** '{apiRoot}/nnrf-disc/v1'  
**Variables:**  
  **API Root:**

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

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

## Security

```
- {}
- oAuth2ClientCredentials:
  - nnrf-disc
```

## Paths

### /nf-instances

**get:**

**Summary:** Search a collection of NF Instances

**Operation ID:** SearchNFInstances

**Tags:**

- NF Instances (Store)

**Parameters:**

- **Name:** target-nf-type

**In:** query

**Description:** Type of the target NF

**Required/Optional:** true

**Schema:**

**Reference:** 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/NFType'

- **Name:** requester-nf-type

**In:** query

**Description:** Type of the requester NF

**Required/Optional:** true

**Schema:**

**Reference:** 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/NFType'

- **Name:** service-names

**In:** query

**Description:** Name of the service offered by the NF

**Schema:**

**Type:** array

**Items:**

**Type:** string

**Min Items:** 1

**Style:** form

**Explode:** false

- **Name:** requester-nf-instance-fqdn

**In:** query

**Description:** FQDN of the requester NF

**Schema:**

```

    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
- Name: target-plmn-list
  In: query
  Description: Id of the PLMN where the target NF is located
  Content:
    Application/JSON:
      Schema:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
          Min Items: 1
- Name: requester-plmn-list
  In: query
  Description: Id of the PLMN where the NF issuing the Discovery request is located

  Content:
    Application/JSON:
      Schema:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
          Min Items: 1
- Name: target-nf-instance-id
  In: query
  Description: Identity of the NF instance being discovered
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
- Name: target-nf-fqdn
  In: query
  Description: FQDN of the NF instance being discovered
  Schema:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
- Name: hnrfr-uri
  In: query
  Description: Uri of the home NRF
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
- Name: snssais
  In: query
  Description: Slice info of the target NF
  Content:
    Application/JSON:
      Schema:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
          Min Items: 1
- Name: dnn
  In: query
  Description: Dnn supported by the BSF, SMF or UPF
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'

```

- **Name:** nsi-list  
**In:** query  
**Description:** NSI IDs that are served by the services being discovered  
**Schema:**  
**Type:** array  
**Items:**  
**Type:** string  
**Min Items:** 1  
**Style:** form  
**Explode:** false
- **Name:** smf-serving-area  
**In:** query  
**Schema:**  
**Type:** string
- **Name:** tai  
**In:** query  
**Description:** Tracking Area Identity  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Tai'
- **Name:** amf-region-id  
**In:** query  
**Description:** AMF Region Identity  
**Schema:**  
**Type:** string
- **Name:** amf-set-id  
**In:** query  
**Description:** AMF Set Identity  
**Schema:**  
**Type:** string
- **Name:** guami  
**In:** query  
**Description:** Guami used to search for an appropriate AMF  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Guami'
- **Name:** supi  
**In:** query  
**Description:** SUPI of the user  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** ue-ipv4-address  
**In:** query  
**Description:** IPv4 address of the UE  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'
- **Name:** ip-domain  
**In:** query  
**Description:** IP domain of the UE, which supported by BSF  
**Schema:**  
**Type:** string



- **Name:** ue-ipv6-prefix  
**In:** query  
**Description:** IPv6 prefix of the UE  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'
- **Name:** pgw-ind  
**In:** query  
**Description:** Combined PGW-C and SMF or a standalone SMF  
**Schema:**  
**Type:** boolean
- **Name:** pgw  
**In:** query  
**Description:** PGW FQDN of a combined PGW-C and SMF  
**Schema:**  
**Reference:** 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/Fqdn'
- **Name:** gpsi  
**In:** query  
**Description:** GPSI of the user  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'
- **Name:** external-group-identity  
**In:** query  
**Description:** external group identifier of the user  
**Schema:**  
**Type:** string
- **Name:** data-set  
**In:** query  
**Description:** data set supported by the NF  
**Schema:**  
**Reference:** 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/DataSetId'
- **Name:** routing-indicator  
**In:** query  
**Description:** routing indicator in SUCI  
**Schema:**  
**Type:** string  
**pattern:** '^[0-9]{1,4}\$'
- **Name:** group-id-list  
**In:** query  
**Description:** Group IDs of the NFs being discovered  
**Schema:**  
**Type:** array  
**Items:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfGroupId'  
**Min Items:** 1  
**Style:** form  
**Explode:** false
- **Name:** dnai-list  
**In:** query  
**Description:** Data network access identifiers of the NFs being discovered  
**Schema:**  
**Type:** array

```

    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnai'
      Min Items: 1
      Style: form
      Explode: false
- Name: supported-features
  In: query
  Description: Features required to be supported by the target NF
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
- Name: upf-iwk-eps-ind
  In: query
  Description: UPF supporting interworking with EPS or not
  Schema:
    Type: boolean
- Name: chf-supported-plmn
  In: query
  Description: PLMN ID supported by a CHF
  Content:
    Application/JSON:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
- Name: preferred-locality
  In: query
  Description: preferred target NF location
  Schema:
    Type: string
- Name: access-type
  In: query
  Description: AccessType supported by the target NF
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
- Name: If-None-Match
  In: header
  Description: Validator for conditional requests, as described in IETF RFC 7232,
3.2
  Schema:
    Type: string

Responses:
  '200':
    Description: Expected response to a valid request
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/SearchResult'
    Headers:
      Cache-Control:
        Description: Cache-Control containing max-age, described in IETF RFC 7234,
5.2
        Schema:
          Type: string

```

```

      ETag:
        Description: Entity Tag containing a strong validator, described in IETF RFC
7232, 2.3
        Schema:
          Type: string
      '307':
        Description: Temporary Redirect
      '400':
        Reference: 'TS29571_CommonData.yaml#/components/responses/400'
      '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'
      '500':
        Reference: 'TS29571_CommonData.yaml#/components/responses/500'
      '501':
        Reference: 'TS29571_CommonData.yaml#/components/responses/501'
      '503':
        Reference: 'TS29571_CommonData.yaml#/components/responses/503'
      Default:
        Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

## Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '/oauth2/token'
        scopes:
          nnrf-disc: Access to the Nnrf_NFDDiscovery API

schemas:
  SearchResult:
    Type: object
    Required:
      - nfInstances
    Properties:
      validityPeriod:
        Type: integer
      nfInstances:
        Type: array
        Items:

```

```

    Reference: '#/components/schemas/NFProfile'
  NfProfile:
    Type: object
    Required:
      - nfInstanceId
      - nfType
      - nfStatus
    Properties:
      nfInstanceId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      nfType:
        Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/NFType'
      nfStatus:
        Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/NFStatus'
      plmnList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
        minItems: 1
      sNssais:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1
      nsiList:
        Type: array
        Items:
          Type: string
        minItems: 1
      fqdn:
        Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
      ipv4Addresses:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
        minItems: 1
      ipv6Addresses:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
        minItems: 1
      capacity:
        Type: integer
        Minimum: 0
        Maximum: 65535
      load:
        Type: integer
        Minimum: 0
        Maximum: 100
      locality:
        Type: string
      priority:

```

```

    Type: integer
    Minimum: 0
    Maximum: 65535
udrInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/UdrInfo'
udmInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/UdmInfo'
ausfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/AusfInfo'
amfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/AmfInfo'
smfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/SmfInfo'
upfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/UpfInfo'
pcfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/PcfInfo'
bsfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/BsfInfo'
chfInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ChfInfo'
customInfo:
    Type: object
recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
nfServicePersistence:
    Type: boolean
    Default: false
nfServices:
    Type: array
    Items:
      Reference: '#/components/schemas/NFService'
    minItems: 1
NFService:
Type: object
Required:
  - serviceInstanceId
  - serviceName
  - versions
  - scheme
  - nfServiceStatus
Properties:
serviceInstanceId:
  Type: string
serviceName:
  Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
versions:
  Type: array
  Items:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/NFServiceVersion'

  minItems: 1
scheme:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/UriScheme'
nfServiceStatus:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/NFServiceStatus'
fqdn:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
ipEndPoints:
    Type: array
    Items:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/IpEndPoint'
    minItems: 1
apiPrefix:
    Type: string
defaultNotificationSubscriptions:
    Type: array
    Items:
      Reference:
'TS29510_Nnrf_NFManagement.yaml#/components/schemas/DefaultNotificationSubscription'
    minItems: 1
capacity:
    Type: integer
    Minimum: 0
    Maximum: 65535
load:
    Type: integer
    Minimum: 0
    Maximum: 100
priority:
    Type: integer
    Minimum: 0
    Maximum: 65535
recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
chfServiceInfo:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ChfServiceInfo'
supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

```

## External Docs

**Description:** 3GPP TS 29.510 V15.2.0; 5G System; Network Function Repository Services; Stage 3

**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.510/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.510/)'



## CHAPTER 5

# Nnrf\_NFManagement

---

The Nnrf\_NFManagement service allows a Network Function instance in the serving PLMN to register, update or deregister its profile in the NRF.

It also allows an NF to subscribe to be notified of newly registered NF instances along with their NF services.

The NF profile consists of NF instance parameters. It also consists of different services parameters exposed by the NF Instance.

Reference: 3GPP TS 29.510 version 15.1.0 Release 15

- [OpenAPI, on page 69](#)
- [Info, on page 69](#)
- [Servers, on page 69](#)
- [Security, on page 70](#)
- [Paths, on page 70](#)
- [Components, on page 78](#)
- [External Docs, on page 96](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '1.0.0'  
**Title:** 'NRF NFManagement Service'  
**Description:** 'NRF NFManagement Service'

## Servers

**URL:** '{apiRoot}/nnrf-nfm/v1'  
**Variables:**  
    **API Root:**

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

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

## Security

```
- {}
- oAuth2ClientCredentials:
  - nnrf-nfm
```

## Paths

### /nf-instances

#### get:

**Summary:** Retrieves a collection of NF Instances

**Operation ID:** GetNFInstances

#### Tags:

- NF Instances (Store)

#### Parameters:

- **Name:** nf-type

**In:** query

**Description:** Type of NF

**Required/Optional:** false

#### Schema:

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

- **Name:** limit

**In:** query

**Description:** How many items to return at one time

**Required/Optional:** false

#### Schema:

**Type:** integer

#### Responses:

'200':

**Description:** Expected response to a valid request

#### Content:

**application/3gppHal+json:**

#### Schema:

**Type:** object

#### Properties:

**\_links:**

**Type:** object

**Description:** 'List of the URI of NF instances. It has two members whose names are item and self. The item one contains an array of URIs.'

**additionalProperties:**



**Reference:**

```
'TS29571_CommonData.yaml#/components/schemas/LinksValueSchema'
  minProperties: 1
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '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'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '501':
    Reference: 'TS29571_CommonData.yaml#/components/responses/501'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Reference: 'TS29571_CommonData.yaml#/components/responses/default'
```

## /nf-instances/{nfInstanceId}

**get:****Summary:** Read the profile of a given NF Instance**Operation ID:** GetNFInstance**Tags:**

- NF Instance ID (Document)

**Parameters:**- **Name:** nfInstanceId**In:** path**Description:** Unique ID of the NF Instance**Required/Optional:** true**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'**Responses:**

'200':

**Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/NFProfile'

'400':

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

'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'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '501':
    Reference: 'TS29571_CommonData.yaml#/components/responses/501'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Reference: 'TS29571_CommonData.yaml#/components/responses/default'
put:
  Summary: Register a new NF Instance
  Operation ID: RegisterNFInstance

  Tags:
    - NF Instance ID (Document)

  Parameters:
    - Name: nfInstanceId
      In: path
      Required/Optional: true
      Description: Unique ID of the NF Instance to register
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  Request Body:
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/NFProfile'
      Required/Optional: true

  Responses:
    '200':
      Description: OK (Profile Replacement)
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/NFProfile'
    '201':
      Description: Expected response to a valid request
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/NFProfile'
  Headers:

```

**Location:**  
**description:** 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nrf-nfm/v1/nf-instances/{nfInstanceId}'  
**Required/Optional:** true  
**Schema:**  
**Type:** string

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

'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'

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

'501':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'

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

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

**patch:**  
**Summary:** Update NF Instance profile  
**Operation ID:** UpdateNFInstance

**Tags:**  
- NF Instance ID (Document)

**Parameters:**  
- **Name:** nfInstanceId  
**In:** path  
**Required/Optional:** true  
**Description:** Unique ID of the NF Instance to update  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'

**Request Body:**  
**Content:**  
**application/json-patch+json:**  
**Schema:**  
**Type:** array  
**Items:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PatchItem'  
**Min Items:** 1  
**Required/Optional:** true

**Responses:**  
'200':

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

**'204':**

**Description:** Expected response with empty body

**'400':**

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

**'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'

**'500':**

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

**'501':**

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'

**'503':**

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

**Default:**

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

**delete:**

**Summary:** Deregisters a given NF Instance

**Operation ID:** DeregisterNFInstance

**Tags:**

- NF Instance ID (Document)

**Parameters:**

- **Name:** nfInstanceId
- In:** path
- Required/Optional:** true
- Description:** Unique ID of the NF Instance to deregister
- Schema:**
- Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'

**Responses:**

**'204':**

**Description:** Expected response to a successful deregistration

## /subscriptions

**Method:** Post

**Summary:** Create a new subscription

**Operation ID:** CreateSubscription

**Tags:**  
 - Subscriptions (Collection)

**Request Body:**  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SubscriptionData'  
**Required/Optional:** true

**Responses:**  
**'201':**  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SubscriptionData'  
**Headers:**  
**Location:**  
**description:** 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nnrf-nfm/v1/subscriptions/{subscriptionId}'  
**Required/Optional:** true  
**Schema:**  
**Type:** string

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

**'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'

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

**'501':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'

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

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

**Callbacks:**  
**onNFStatusEvent:**  
**'{\$request.body#/nfStatusNotificationUri}':**  
**Method:** Post  
**Request Body:**  
**Description:** Notification Payload  
**Content:**  
**Application/JSON:**

**Schema:****Reference:** '#/components/schemas/NotificationData'**Responses:****'204':****Description:** Expected response to a successful callback processing**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'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'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'501':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Reference:** 'TS29571\_CommonData.yaml#/components/responses/default'

## /subscriptions/{subscriptionID}

**patch:****Summary:** Updates a subscription**Operation ID:** UpdateSubscription**Tags:**

- Subscription ID (Document)

**Parameters:**- **Name:** subscriptionID**In:** path**Required/Optional:** true**Description:** Unique ID of the subscription to update**Schema:****Type:** string**pattern:** '^([0-9]{5,6}-)?[^-]+\$'**Request Body:****Content:****application/json-patch+json:****Schema:****Type:** array**Items:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PatchItem'

**Required/Optional:** true

**Responses:**

'200':

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

'204':

**Description:** No Content

'400':

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

'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'

'500':

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

'501':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'

'503':

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

**Default:**

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

**delete:**

**Summary:** Deletes a subscription

**Operation ID:** RemoveSubscription

**Tags:**

- Subscription ID (Document)

**Parameters:**

- **Name:** subscriptionID

**In:** path

**Required/Optional:** true

**Description:** Unique ID of the subscription to remove

**Schema:**

**Type:** string

**pattern:** '^([0-9]{5,6}-)?[^-]+\$'

**Responses:**

'204':

**Description:** Expected response to a successful subscription removal

'400':

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

```

'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'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'501':
  Reference: 'TS29571_CommonData.yaml#/components/responses/501'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

## Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '/oauth2/token'
        scopes:
          nnrf-nfm: Access to the Nnrf_NFManagement API

schemas:
  NFProfile:
    Type: object
    Required:
      - nfInstanceId
      - nfType
      - nfStatus
    anyOf:
      - required: [ fqdn ]
      - required: [ ipv4Addresses ]
      - required: [ ipv6Addresses ]
    Properties:
      nfInstanceId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      nfType:
        Reference: '#/components/schemas/NFType'
      nfStatus:
        Reference: '#/components/schemas/NFStatus'
      heartBeatTimer:
        Type: integer

```



```
plmnList:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
  minItems: 1
sNssais:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  minItems: 1
nsiList:
  Type: array
  Items:
    Type: string
  minItems: 1
fqdn:
  Reference: '#/components/schemas/Fqdn'
interPlmnFqdn:
  Reference: '#/components/schemas/Fqdn'
ipv4Addresses:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
  minItems: 1
ipv6Addresses:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
  minItems: 1
allowedPlmns:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
  minItems: 1
allowedNfTypes:
  Type: array
  Items:
    Reference: '#/components/schemas/NFType'
  minItems: 1
allowedNfDomains:
  Type: array
  Items:
    Type: string
  minItems: 1
allowedNssais:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  minItems: 1
priority:
  Type: integer
```

```

    Minimum: 0
    Maximum: 65535
  capacity:
    Type: integer
    Minimum: 0
    Maximum: 65535
  load:
    Type: integer
    Minimum: 0
    Maximum: 100
  locality:
    Type: string
  udrInfo:
    Reference: '#/components/schemas/UdrInfo'
  udmInfo:
    Reference: '#/components/schemas/UdmInfo'
  ausfInfo:
    Reference: '#/components/schemas/AusfInfo'
  amfInfo:
    Reference: '#/components/schemas/AmfInfo'
  smfInfo:
    Reference: '#/components/schemas/SmfInfo'
  upfInfo:
    Reference: '#/components/schemas/UpfInfo'
  pcfInfo:
    Reference: '#/components/schemas/PcfInfo'
  bsfInfo:
    Reference: '#/components/schemas/BsfInfo'
  chfInfo:
    Reference: '#/components/schemas/ChfInfo'
  nrfInfo:
    Reference: '#/components/schemas/NrfInfo'
  customInfo:
    Type: object
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  nfServicePersistence:
    Type: boolean
    Default: false
  nfServices:
    Type: array
    Items:
      Reference: '#/components/schemas/NFService'
    minItems: 1
  NFService:
    Type: object
  Required:
    - serviceInstanceId
    - serviceName
    - versions
    - scheme
    - nfServiceStatus

```

```
Properties:
  serviceInstanceId:
    Type: string
  serviceName:
    Reference: '#/components/schemas/ServiceName'
  versions:
    Type: array
    Items:
      Reference: '#/components/schemas/NFServiceVersion'
    minItems: 1
  scheme:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UriScheme'
  nfServiceStatus:
    Reference: '#/components/schemas/NFServiceStatus'
  fqdn:
    Reference: '#/components/schemas/Fqdn'
  interPlmnFqdn:
    Reference: '#/components/schemas/Fqdn'
  ipEndPoints:
    Type: array
    Items:
      Reference: '#/components/schemas/IpEndPoint'
    minItems: 1
  apiPrefix:
    Type: string
  defaultNotificationSubscriptions:
    Type: array
    Items:
      Reference: '#/components/schemas/DefaultNotificationSubscription'
    minItems: 1
  allowedPlmns:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
    minItems: 1
  allowedNfTypes:
    Type: array
    Items:
      Reference: '#/components/schemas/NFType'
    minItems: 1
  allowedNfDomains:
    Type: array
    Items:
      Type: string
    minItems: 1
  allowedNssais:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    minItems: 1
  priority:
```

```

    Type: integer
    Minimum: 0
    Maximum: 65535
  capacity:
    Type: integer
    Minimum: 0
    Maximum: 65535
  load:
    Type: integer
    Minimum: 0
    Maximum: 100
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  chfServiceInfo:
    Reference: '#/components/schemas/ChfServiceInfo'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
NFType:
  anyOf:
    - type: string
      enum:
        - NRF
        - UDM
        - AMF
        - SMF
        - AUSF
        - NEF
        - PCF
        - SMSF
        - NSSF
        - UDR
        - LMF
        - GMLC
        - 5G_EIR
        - SEPP
        - UPF
        - N3IWF
        - AF
        - UDSE
        - BSF
        - CHF
        - NWDAF
    - type: string
Fqdn:
  Type: string
IpEndPoint:
  Type: object
  Properties:
    ipv4Address:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    ipv6Address:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
    transport:
      Reference: '#/components/schemas/TransportProtocol'
    port:
      Type: integer

```

```

    Minimum: 0
    Maximum: 65535
SubscriptionData:
  Type: object
  Required:
    - nfStatusNotificationUri
    - subscriptionId
  Properties:
    nfStatusNotificationUri:
      Type: string
    subscrCond:
      oneOf:
        - $ref: '#/components/schemas/NfInstanceIdCond'
        - $ref: '#/components/schemas/NfTypeCond'
        - $ref: '#/components/schemas/ServiceNameCond'
        - $ref: '#/components/schemas/AmfCond'
        - $ref: '#/components/schemas/GuamiListCond'
        - $ref: '#/components/schemas/NetworkSliceCond'
        - $ref: '#/components/schemas/NfGroupCond'
    subscriptionId:
      Type: string
      Pattern: '^[0-9]{5,6}-?[^-]+$'
      readOnly: true
    validityTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    reqNotifEvents:
      Type: array
      Items:
        Reference: '#/components/schemas/NotificationEventType'
      minItems: 1
    plmnId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
    notifCondition:
      Reference: '#/components/schemas/NotifCondition'
    reqNfType:
      Reference: '#/components/schemas/NFType'
    reqNfFqdn:
      Reference: '#/components/schemas/Fqdn'
NfInstanceIdCond:
  Type: object
  Required:
    - nfInstanceId
  Properties:
    nfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
NfTypeCond:
  Type: object
  Required:
    - nfType
  Properties:
    nfType:
      Reference: '#/components/schemas/NFType'
ServiceNameCond:
  Type: object

```

```

Required:
  - serviceName
Properties:
  serviceName:
    Reference: '#/components/schemas/ServiceName'
AmfCond:
Type: object
anyOf:
  - required: [ amfSetId ]
  - required: [ amfRegionId ]
Properties:
  amfSetId:
    Type: string
  amfRegionId:
    Type: string
GuamiListCond:
Type: object
Required:
  - guamiList
Properties:
  guamiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
NetworkSliceCond:
Type: object
Required:
  - snssaiList
Properties:
  snssaiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  nsiList:
    Type: array
    Items:
      Type: string
NfGroupCond:
Type: object
Required:
  - nfType
  - nfGroupId
Properties:
  nfType:
    Type: string
    enum:
      - UDM
      - AUSF
      - UDR
  nfGroupId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
NotifCondition:
Type: object

```

```

not:
  Required: [ monitoredAttributes, unmonitoredAttributes ]
Properties:
  monitoredAttributes:
    Type: array
    Items:
      Type: string
    minItems: 1
  unmonitoredAttributes:
    Type: array
    Items:
      Type: string
    minItems: 1
UdrInfo:
  Type: object
Properties:
  groupId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
  supiRanges:
    Type: array
    Items:
      Reference: '#/components/schemas/SupiRange'
    minItems: 1
  gpsiRanges:
    Type: array
    Items:
      Reference: '#/components/schemas/IdentityRange'
    minItems: 1
  externalGroupIdentifiersRanges:
    Type: array
    Items:
      Reference: '#/components/schemas/IdentityRange'
    minItems: 1
  supportedDataSets:
    Type: array
    Items:
      Reference: '#/components/schemas/DataSetId'
    minItems: 1
SupiRange:
  Type: object
Properties:
  start:
    Type: string
    Pattern: '^[0-9]+$'
  end:
    Type: string
    Pattern: '^[0-9]+$'
  Pattern:
    Type: string
IdentityRange:
  Type: object

```

```

Properties:
  start:
    Type: string
    Pattern: '^[0-9]+$'
  end:
    Type: string
    Pattern: '^[0-9]+$'
  Pattern:
    Type: string
DataSetId:
  anyOf:
    - type: string
    enum:
      - SUBSCRIPTION
      - POLICY
      - EXPOSURE
      - APPLICATION
    - type: string
UdmInfo:
  Type: object
  Properties:
    groupId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
    supiRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/SupiRange'
      minItems: 1
    gpsiRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/IdentityRange'
      minItems: 1
    externalGroupIdentifiersRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/IdentityRange'
      minItems: 1
    routingIndicators:
      Type: array
      Items:
        Type: string
        Pattern: '^[0-9]{1,4}$'
      minItems: 1
AusfInfo:
  Type: object
  Properties:
    groupId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
    supiRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/SupiRange'

```



```

    minItems: 1
  routingIndicators:
    Type: array
    Items:
      Type: string
      Pattern: '^[0-9]{1,4}$'
    minItems: 1
AmfInfo:
  Type: object
  Required:
    - amfSetId
    - amfRegionId
    - guamiList
  Properties:
    amfSetId:
      Type: string
    amfRegionId:
      Type: string
    guamiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
      minItems: 1
    taiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
      minItems: 1
    taiRangeList:
      Type: array
      Items:
        Reference: '#/components/schemas/TaiRange'
      minItems: 1
    backupInfoAmfFailure:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
      minItems: 1
    backupInfoAmfRemoval:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
      minItems: 1
    n2InterfaceAmfInfo:
      Reference: '#/components/schemas/N2InterfaceAmfInfo'
SmfInfo:
  Type: object
  Required:
    - sNssaiSmfInfoList
  Properties:
    sNssaiSmfInfoList:
      Type: array

```

```

    Items:
      Reference: '#/components/schemas/SnssaiSmfInfoItem'
    minItems: 1
  taiList:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
    minItems: 1
  taiRangeList:
    Type: array
    Items:
      Reference: '#/components/schemas/TaiRange'
    minItems: 1
  pgwFqdn:
    Reference: '#/components/schemas/Fqdn'
  accessType:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    minItems: 1
SnssaiSmfInfoItem:
  Type: object
  Required:
    - sNssai
    - dnnSmfInfoList
  Properties:
    sNssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    dnnSmfInfoList:
      Type: array
      Items:
        Reference: '#/components/schemas/DnnSmfInfoItem'
      minItems: 1
DnnSmfInfoItem:
  Type: object
  Required:
    - dnn
  Properties:
    dnn:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
UpfInfo:
  Type: object
  Required:
    - sNssaiUpfInfoList
  Properties:
    sNssaiUpfInfoList:
      Type: array
      Items:
        Reference: '#/components/schemas/SnssaiUpfInfoItem'
      minItems: 1
    smfServingArea:
      Type: array

```

```

    Items:
      Type: string
    minItems: 1
  interfaceUpfInfoList:
    Type: array
    Items:
      Reference: '#/components/schemas/InterfaceUpfInfoItem'
    minItems: 1
  iwkEpsInd:
    Type: boolean
    Default: false
  SnssaiUpfInfoItem:
    Type: object
    Required:
      - sNssai
      - dnnUpfInfoList
    Properties:
      sNssai:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      dnnUpfInfoList:
        Type: array
        Items:
          Reference: '#/components/schemas/DnnUpfInfoItem'
        minItems: 1
  DnnUpfInfoItem:
    Type: object
    Required:
      - dnn
    Properties:
      dnn:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
      dnaiList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnai'
        minItems: 1
  InterfaceUpfInfoItem:
    Type: object
    Required:
      - interfaceType
    Properties:
      interfaceType:
        Reference: '#/components/schemas/UPInterfaceType'
      ipv4EndpointAddresses:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
        minItems: 1
      ipv6EndpointAddresses:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'

```

```

    minItems: 1
    endpointFqdn:
      Reference: '#/components/schemas/Fqdn'
    networkInstance:
      Type: string
UPInterfaceType:
  anyOf:
    - type: string
      enum:
        - N3
        - N6
        - N9
    - type: string
PcfInfo:
  Type: object
  Properties:
    dnnList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
      minItems: 1
    supiRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/SupiRange'
      minItems: 1
    rxDiamHost:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DiameterIdentity'
    rxDiamRealm:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DiameterIdentity'
BsfInfo:
  Type: object
  Properties:
    dnnList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
      minItems: 1
    ipDomainList:
      Type: array
      Items:
        Type: string
      minItems: 1
    ipv4AddressRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/Ipv4AddressRange'
      minItems: 1
    ipv6PrefixRanges:
      Type: array
      Items:
        Reference: '#/components/schemas/Ipv6PrefixRange'

```

```

    minItems: 1
ChfInfo:
  Type: object
  Properties:
    supiRangeList:
      Type: array
      Items:
        Reference: '#/components/schemas/SupiRange'
        minItems: 1
    gpsiRangeList:
      Type: array
      Items:
        Reference: '#/components/schemas/IdentityRange'
        minItems: 1
    plmnRangeList:
      Type: array
      Items:
        Reference: '#/components/schemas/PlmnRange'
        minItems: 1
Ipv4AddressRange:
  Type: object
  Properties:
    start:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    end:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
Ipv6PrefixRange:
  Type: object
  Properties:
    start:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Prefix'
    end:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Prefix'
DefaultNotificationSubscription:
  Type: object
  Required:
    - notificationType
    - callbackUri
  Properties:
    notificationType:
      Reference: '#/components/schemas/NotificationType'
    callbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    n1MessageClass:
      Reference: 'TS29518_Namf_Communication.yaml#/components/schemas/N1MessageClass'
    n2InformationClass:
      Reference: 'TS29518_Namf_Communication.yaml#/components/schemas/N2InformationClass'

NotificationType:
  anyOf:
    - type: string
    enum:

```

```

    - N1_MESSAGES
    - N2_INFORMATION
    - LOCATION_NOTIFICATION
    - DATA_REMOVAL_NOTIFICATION
    - DATA_CHANGE_NOTIFICATION
  - type: string
TransportProtocol:
  anyOf:
    - type: string
      enum:
        - TCP
    - type: string
NotificationEventType:
  anyOf:
    - type: string
      enum:
        - NF_REGISTERED
        - NF_DEREGISTERED
        - NF_PROFILE_CHANGED
    - type: string
NotificationData:
  Type: object
  Required:
    - event
    - nfInstanceUri
  allOf:
    - anyOf:
      - not:
          Properties:
            event:
              Type: string
              enum:
                - NF_PROFILE_CHANGED
            - oneOf:
              - required: [ nfProfile ]
              - required: [ profileChanges ]
    - anyOf:
      - not:
          Properties:
            event:
              Type: string
              enum:
                - NF_REGISTERED
            - required: [ nfProfile ]
  Properties:
    event:
      Reference: '#/components/schemas/NotificationEventType'
    nfInstanceUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    nfProfile:
      allOf:
        - $ref: '#/components/schemas/NFProfile'
        - not:
            Required: [ interPlmnFqdn ]
      - properties:
          nfServices:
            Type: array

```

```

    Items:
      allOf:
        - $ref: '#/components/schemas/NFService'
        - not:
            Required: [ interPlmnFqdn ]
        - not:
            Required: [ allowedPlmns ]
        - not:
            Required: [ allowedNfTypes ]
        - not:
            Required: [ allowedNfDomains ]
        - not:
            Required: [ allowedNssais ]
  profileChanges:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ChangeItem'
    minItems: 1
  NFStatus:
    anyOf:
      - type: string
        enum:
          - REGISTERED
          - SUSPENDED
      - type: string
  NFServiceVersion:
    Type: object
    Required:
      - apiVersionInUri
      - apiFullVersion
    Properties:
      apiVersionInUri:
        Type: string
      apiFullVersion:
        Type: string
      expiry:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  ServiceName:
    anyOf:
      - type: string
        enum:
          - nnr-f-nf-m
          - nnr-f-disc
          - nudm-sdm
          - nudm-uecm
          - nudm-ueau
          - nudm-ee
          - nudm-pp
          - namf-comm
          - namf-evts
          - namf-mt
          - namf-loc
          - nsmf-pdusession
          - nsmf-event-exposure
          - nausf-auth
          - nausf-sorprotection
          - nnef-pfdmanagement

```

```

- npcf-am-policy-control
- npcf-smpolicycontrol
- npcf-policyauthorization
- npcf-bdtpolicycontrol
- npcf-eventexposure
- npcf-ue-policy-control
- nsmsf-sms
- nssf-nssselection
- nssf-nssaiavailability
- nudr-dr
- nlmf-loc
- n5g-eir-eic
- nbsf-management
- nchf-spendinglimitcontrol
- nchf-convergedcharging
- nnwdaf-eventssubscription
- nnwdaf-analyticsinfo
- type: string

```

**N2InterfaceAmfInfo:**

**Type:** object

**Properties:**

**ipv4EndpointAddress:**

**Type:** array

**Items:**

**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

**minItems:** 1

**ipv6EndpointAddress:**

**Type:** array

**Items:**

**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

**minItems:** 1

**amfName:**

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

**NFServiceStatus:**

**anyOf:**

- type: string
- enum:**
  - REGISTERED
  - SUSPENDED
- type: string

**TaiRange:**

**Type:** object

**Required:**

- plmnId
- tacRangeList

**Properties:**

**plmnId:**

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

**tacRangeList:**

**Type:** array

**Items:**

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

**minItems:** 1

**TacRange:**

**Type:** object

**Properties:**



```

    start:
      Type: string
      Pattern: '^[A-Za-f0-9]{4}|[A-Za-f0-9]{6}$'
    end:
      Type: string
      Pattern: '^[A-Za-f0-9]{4}|[A-Za-f0-9]{6}$'
    Pattern:
      Type: string
  ChfServiceInfo:
    Type: object
    not:
      Required: [ primaryChfServiceInstance, secondaryChfServiceInstance ]
    Properties:
      primaryChfServiceInstance:
        Type: string
      secondaryChfServiceInstance:
        Type: string
  PlmnRange:
    Type: object
    Properties:
      start:
        Type: string
        Pattern: '^[0-9]{3}[0-9]{2,3}$'
      end:
        Type: string
        Pattern: '^[0-9]{3}[0-9]{2,3}$'
      Pattern:
        Type: string
  NrfInfo:
    Type: object
    Properties:
      servedUdrInfo:
        Type: object
        additionalProperties:
          Reference: '#/components/schemas/UdrInfo'
        minProperties: 1
      servedUdmInfo:
        Type: object
        additionalProperties:
          Reference: '#/components/schemas/UdmInfo'
        minProperties: 1
      servedAusfInfo:
        Type: object
        additionalProperties:
          Reference: '#/components/schemas/AusfInfo'
        minProperties: 1
      servedAmfInfo:
        Type: object
        additionalProperties:
          Reference: '#/components/schemas/AmfInfo'
        minProperties: 1

```

```
servedSmfInfo:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/SmfInfo'
  minProperties: 1
servedUpfInfo:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/UpfInfo'
  minProperties: 1
servedPcfInfo:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/PcfInfo'
  minProperties: 1
servedBsfInfo:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/BsfInfo'
  minProperties: 1
servedChfInfo:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/ChfInfo'
  minProperties: 1
```

## External Docs

**Description:** 3GPP TS 29.510 V15.2.0; 5G System; Network Function Repository Services; Stage 3

**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.510/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.510/)'



## CHAPTER 6

# Nnssf\_NSSelection

The Nnssf\_NSSelection service is used by an NF Service Consumer (e.g. AMF or NSSF in a different PLMN) to retrieve the information related to network slice in the non-roaming and roaming case. It also enables the NSSF to provide to the AMF the Allowed NSSAI and the Configured NSSAI for the Serving PLMN. The NF service consumer discovers the NSSF based on the local configuration. The NSSF in a different PLMN is discovered based on the selfconstructed FQDN as specified in 3GPP TS 23.003[9].

- [OpenAPI, on page 97](#)
- [Info, on page 97](#)
- [Servers, on page 97](#)
- [Security, on page 98](#)
- [Paths, on page 98](#)
- [Components, on page 100](#)
- [External Docs, on page 104](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '2.0.1'

**Title:** 'NSSF NS Selection'

**Description:** |

NSSF Network Slice Selection Service.

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## Servers

**URL:** '{apiRoot}/nnssf-nselection/v2'

**Variables:**

**API Root:**

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

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

## Security

- {}
- oAuth2ClientCredentials:
  - nssf-nselection

## Paths

### /network-slice-information

#### get:

**Summary:** Retrieve the Network Slice Selection Information

#### Tags:

- Network Slice Information (Document)

**Operation ID:** NSSelectionGet

#### Parameters:

- **Name:** nf-type

**In:** query

**Description:** NF type of the NF service consumer

**Required/Optional:** true

#### Schema:

**Reference:** 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/NFType'

- **Name:** nf-id

**In:** query

**Description:** NF Instance ID of the NF service consumer

**Required/Optional:** true

#### Schema:

**Reference:** '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:

**Reference:** '#/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:

```

        Reference: '#/components/schemas/SliceInfoForPDUSession'
- Name: slice-info-request-for-ue-cu
  In: query
  Description: Requested network slice information during UE configuration update
procedure
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/SliceInfoForUEConfigurationUpdate'
- Name: home-plmn-id
  In: query
  Description: PLMN ID of the HPLMN
  Content:
    Application/JSON:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
- Name: tai
  In: query
  Description: TAI of the UE
  Content:
    Application/JSON:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
- Name: supported-features
  In: query
  Description: Features required to be supported by the NFs in the target slice
instance
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

```

**Responses:**

```

'200':
  Description: OK (Successful Network Slice Selection)
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/AuthorizedNetworkSliceInfo'
'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'
'406':
  Reference: 'TS29571_CommonData.yaml#/components/responses/406'
'414':
  Reference: 'TS29571_CommonData.yaml#/components/responses/414'
'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-nsselection: Access to the Nssf_NSSelection API

schemas:
  AuthorizedNetworkSliceInfo:
    Type: object
    Properties:
      allowedNssaiList:
        Type: array
        Items:
          Reference: '#/components/schemas/AllowedNssai'
        minItems: 1
      configuredNssai:
        Type: array
        Items:
          Reference: '#/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:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
        minItems: 1
      rejectedNssaiInPlmn:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1
      rejectedNssaiInTa:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1

```

```

nsiInformation:
  Reference: '#/components/schemas/NsiInformation'
supportedFeatures:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
nrfAmfSet:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
nrfAmfSetNfmgtUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
nrfAmfSetAccessTokenUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
SubscribedSnssai:
  Type: object
  Required:
    - subscribedSnssai
  Properties:
    subscribedSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    defaultIndication:
      Type: boolean
AllowedSnssai:
  Type: object
  Required:
    - allowedSnssai
  Properties:
    allowedSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    nsiInformationList:
      Type: array
      Items:
        Reference: '#/components/schemas/NsiInformation'
      minItems: 1
    mappedHomeSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
AllowedNssai:
  Type: object
  Required:
    - allowedSnssaiList
    - accessType
  Properties:
    allowedSnssaiList:
      Type: array
      Items:
        Reference: '#/components/schemas/AllowedSnssai'
      minItems: 1
    accessType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
NsiInformation:
  Type: object
  Required:
    - nrfId
  Properties:
    nrfId:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  nsiId:
    Reference: '#/components/schemas/NsiId'
  nrfNfMgtUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  nrfAccessTokenUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
MappingOfSnssai:
  Type: object
  Required:
    - servingSnssai
    - homeSnssai
  Properties:
    servingSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    homeSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
SliceInfoForRegistration:
  Type: object
  Properties:
    subscribedNssai:
      Type: array
      Items:
        Reference: '#/components/schemas/SubscribedSnssai'
      minItems: 1
    allowedNssaiCurrentAccess:
      Reference: '#/components/schemas/AllowedNssai'
    allowedNssaiOtherAccess:
      Reference: '#/components/schemas/AllowedNssai'
    sNssaiForMapping:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    requestedNssai:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    defaultConfiguredSnssaiInd:
      Type: boolean
    mappingOfNssai:
      Type: array
      Items:
        Reference: '#/components/schemas/MappingOfSnssai'
      minItems: 1
    requestMapping:
      Type: boolean
SliceInfoForPDUSession:
  Type: object
  Required:
    - sNssai

```



```

- roamingIndication
Properties:
  sNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  roamingIndication:
    Reference: '#/components/schemas/RoamingIndication'
  homeSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
SliceInfoForUEConfigurationUpdate:
Type: object
Properties:
  subscribedNssai:
    Type: array
    Items:
      Reference: '#/components/schemas/SubscribedSnssai'
    minItems: 1
  allowedNssaiCurrentAccess:
    Reference: '#/components/schemas/AllowedNssai'
  allowedNssaiOtherAccess:
    Reference: '#/components/schemas/AllowedNssai'
  defaultConfiguredSnssaiInd:
    Type: boolean
  requestedNssai:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    minItems: 1
  mappingOfNssai:
    Type: array
    Items:
      Reference: '#/components/schemas/MappingOfSnssai'
    minItems: 1
ConfiguredSnssai:
Type: object
Required:
- configuredSnssai
Properties:
  configuredSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  mappedHomeSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
RoamingIndication:
anyOf:
- type: string
  enum:
- NON_ROAMING
- LOCAL_BREAKOUT
- HOME_ROUTED_ROAMING
- type: string
NsiId:
Type: string

```

## External Docs

**Description:** 3GPP TS 29.531 V15.3.0; 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/)



## CHAPTER 7

# Npcf\_AMPolicyControl

The Access and Mobility Policy Control Service (Npcf\_AMPolicyControl) is part of the Npcf service-based interface exhibited by the Policy Control Function (PCF).

The known consumers of the Npcf\_AMPolicyControl service are the Access and Mobility Management Function (AMF) and the Visited Policy Control Function (V-PCF).

Reference: 3GPP TS 29.507 version 15.0.0 Release 15

- [OpenAPI, on page 105](#)
- [Info, on page 105](#)
- [Servers, on page 105](#)
- [Security, on page 106](#)
- [Paths, on page 106](#)
- [Components, on page 111](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Description:** Access and Mobility Policy Control Service API

**Version:** "1.0.0"

**Title:** Npcf\_AMPolicyControl

## Servers

**URL:** '{apiRoot}/npcf-am-policy-control/v1'

**Variables:**

**API Root:**

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

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

# Security

```
- {}
- oAuth2ClientCredentials:
  - npcf-am-policy-control
```

## Paths

### /policies

**Method:** Post

**Request Body:**

**Required/Optional:** true

**Content:**

**Application/JSON:**

**Schema:**

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

**Responses:**

'201':

**Description:** Created

**Content:**

**Application/JSON:**

**Schema:**

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

**Headers:**

**Location:**

**description:** 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/npcf-am-policy-control/v1/policies/{polAssoId}'

**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:
  policyUpdateNotification:
    '{$request.body#/notificationUri}/update':
      Method: Post
      Request Body:
        Required/Optional: true
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/PolicyUpdate'

      Responses:
        '204':
          Description: No Content, Notification was succesfull
        '307':
          Description: temporary redirect
        '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'
  policyAssociationTerminationRequestNotification:
    '{$request.body#/notificationUri}/terminate':
      Method: Post
      Request Body:
        Required/Optional: true
        Content:

```

**Application/JSON:****Schema:****Reference:** '#/components/schemas/TerminationNotification'**Responses:****'204':****Description:** No Content, Notification was successful**'307':****Description:** temporary redirect**'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'

## /policies/{polAssold}

**get:****Parameters:****- Name:** polAssoId**In:** path**Description:** Identifier of a policy association**Required/Optional:** true**Schema:****Type:** string**Responses:****'200':****Description:** OK. Resource representation is returned**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/PolicyAssociation'

```
'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'  
'406':  
  Reference: 'TS29571_CommonData.yaml#/components/responses/406'  
'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:
```

**Parameters:**

```
- Name: polAssoid  
  In: path  
  Description: Identifier of a policy association  
  Required/Optional: true  
  Schema:  
    Type: string
```

**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'
```

## /policies/{polAssold}/update

**Method:** Post

**Request Body:**

**Required/Optional:** true

**Content:**

**Application/JSON:**

**Schema:**

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

**Parameters:**

- **Name:** polAssoId

**In:** path

**Description:** Identifier of a policy association

**Required/Optional:** true

**Schema:**

**Type:** string

**Responses:**

'200':

**Description:** OK. Updated policies are returned

**Content:**

**Application/JSON:**

**Schema:**

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

'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'



# Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          npcf-am-policy-control: Access to the Npcf_AMPolicyControl API

schemas:
  PolicyAssociation:
    Type: object
    Properties:
      request:
        Reference: '#/components/schemas/PolicyAssociationRequest'
      triggers:
        Type: array
        Items:
          Reference: '#/components/schemas/RequestTrigger'
        minItems: 1
        Description: Request Triggers that the PCF subscribes. Only values "LOC_CH" and
"PRA_CH" are permitted.
      servAreaRes:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
      rfsp:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndex'
      pras:
        Type: object
        additionalProperties:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceInfo'
        minProperties: 1
      suppFeat:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - suppFeat
  PolicyAssociationRequest:
    Type: object
    Properties:
      notificationUri:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      altNotifIpv4Addrs:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
        minItems: 1
        Description: Alternate or backup IPv4 Address(es) where to send Notifications.
      altNotifIpv6Addrs:

```

```

    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
    minItems: 1
    Description: Alternate or backup IPv6 Address(es) where to send Notifications.
  supi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  gpsi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
  accessType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  userLoc:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  timeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
  servingPlmn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NetworkId'
  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  groupIds:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
    minItems: 1
  servAreaRes:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
  rfsp:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndex'
  guami:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
  serviveName:
    Type: string
    Description: If the NF service consumer is an AMF, it should provide the name of
    a service produced by the AMF that makes use of information received within the
    Npcf_AMPolicyControl_UpdateNotify service operation.
  traceReq:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
  suppFeat:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - notificationUri
    - suppFeat
    - supi
PolicyAssociationUpdateRequest:
  Type: object
  Properties:
    notificationUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    altNotifIpv4Addrs:
      Type: array

```

```

    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    minItems: 1
    Description: Alternate or backup IPv4 Address(es) where to send Notifications.
  altNotifIpv6Addrs:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
    minItems: 1
    Description: Alternate or backup IPv6 Address(es) where to send Notifications.
  triggers:
    Type: array
    Items:
      Reference: '#/components/schemas/RequestTrigger'
    minItems: 1
    Description: Request Triggers that the NF service consumer observes.
  servAreaRes:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
  rfsp:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndex'
  praStatuses:
    Type: object
    additionalProperties:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceInfo'
    minProperties: 1
    Description: Map of PRA status information.
  userLoc:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  traceReq:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
PolicyUpdate:
  Type: object
  Properties:
    resourceUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    triggers:
      Type: array
      Items:
        Reference: '#/components/schemas/RequestTrigger'
      minItems: 1
      nullable: true
      Description: Request Triggers that the PCF subscribes. Only values "LOC_CH" and
"PRA_CH" are permitted.
    servAreaRes:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
    rfsp:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndex'
  pras:
    Type: object
    additionalProperties:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceInfoRm'
    Description: Map of PRA information.

```

```

    minProperties: 1
    nullable: true
  Required:
    - resourceUri
  TerminationNotification:
    Type: object
  Properties:
    resourceUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    cause:
      Reference: '#/components/schemas/PolicyAssociationReleaseCause'
  Required:
    - resourceUri
    - cause
  RequestTrigger:
    anyOf:
    - type: string
      enum:
        - LOC_CH
        - PRA_CH
        - SERV_AREA_CH
        - RFSP_CH
    - 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
        - LOC_CH: Location change (tracking area). The tracking area of the UE has changed.
        - PRA_CH: Change of UE presence in PRA. The UE is entering/leaving a Presence Reporting
        Area.
        - SERV_AREA_CH: Service Area Restriction change. The UDM notifies the AMF that the
        subscribed service area restriction information has changed.
        - RFSP_CH: RFSP index change. The UDM notifies the AMF that the subscribed RFSP index
        has changed.
    PolicyAssociationReleaseCause:
      anyOf:
      - type: string
        enum:
          - UNSPECIFIED
          - UE_SUBSCRIPTION
          - INSUFFICIENT_RES
      - 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
          - UNSPECIFIED: This value is used for unspecified reasons.
          - UE_SUBSCRIPTION: This value is used to indicate that the session needs to be
          terminated because the subscription of UE has changed (e.g. was removed).
          - INSUFFICIENT_RES: This value is used to indicate that the server is overloaded and
          needs to abort the session.

```



## CHAPTER 8

# Nsmf\_PDUSession

The Nsmf\_PDUSession service operates on the PDU Sessions. The service operations exposed by this service allows other NFs to establish, modify and release the PDU Sessions. The following are the key functionalities of this NF service:

- Creation, modification and deletion of SM contexts for PDU Sessions upon receiving N1 message notification from AMF carrying the NAS SM messages. An SM context represents an association between the NF Service Consumer (for example, AMF) and the SMF for a PDU session;
- Retrieval of SM contexts of PDU sessions, for example, to move PDU sessions towards the EPC using the N26 interface;
- Creation, modification and deletion of PDU sessions between the V-SMF and H-SMF, in HR roaming scenarios;
- Association of policy and charging rules with PDU Sessions and binding the policy and charging rules to flows;
- Interacting with the UPF over N4 for creating, modifying and releasing user plane sessions;
- Process user plane events from the UPF and apply the corresponding policy and charging rules.

Reference: 3GPP TS 29.502 version 15.0.0 Release 15

- [OpenAPI, on page 115](#)
- [Info, on page 116](#)
- [Servers, on page 116](#)
- [Security, on page 116](#)
- [Paths, on page 116](#)
- [Components, on page 136](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '1.0.0'  
**Title:** 'Nsmf\_PDUSession'  
**Description:** 'SMF PDU Session Service'

## Servers

**URL:** '{apiRoot}/nsmf-pdusession/v1'  
**Variables:**  
**API Root:**  
**Default:** https://example.com  
**Description:** apiRoot as defined in subclause 4.4 of 3GPP TS 29.501. The sm-contexts and pdu-sessions resources can be distributed on different processing instances or hosts. Thus the authority and/or deployment-specific string of the apiRoot of the created individual sm context and pdu-session resources' URIs may differ from the authority and/or deployment-specific string of the apiRoot of the sm-contexts and pdu-sessions collections' URIs.

## Security

```
- {}
- oAuth2Clientcredentials:
  - nsmf-pdusession
```

## Paths

### /sm-contexts

**Method:** Post  
**Summary:** Create SM Context  
**Tags:**  
 - SM contexts collection  
**Operation ID:** PostSmContexts  
**Request Body:**  
**Description:** representation of the SM context to be created in the SMF  
**Required/Optional:** true  
**Content:**  
**Multipart/Related:**  
**Schema:**  
**Type:** object  
**Properties:** # Request parts

```

    JSON Data:
      Reference: '#/components/schemas/SmContextCreateData'
    binaryDataN1SmMessage:
      Type: string
      Format: binary
  Encoding:
    JSON Data:
      Content Type: application/json
    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
        Schema:
          Type: string
  Callbacks:
    smContextStatusNotification:
      '{$request.body#/smContextStatusUri}':
        Method: Post
        Request Body: # contents of the callback message
        Required/Optional: true
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/SmContextStatusNotification'

  Responses:
    '204':
      Description: successful notification
    '307':
      Description: temporary redirect
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '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'

  Responses:
    '201':
      Description: successful creation of an SM context

```

```

Content:
  Application/JSON: # message without binary body part
  Schema:
    Reference: '#/components/schemas/SmContextCreatedData'
  Multipart/Related: # message with binary body part(s)
  Schema:
    Type: object
    Properties: # Request parts
    JSON Data:
      Reference: '#/components/schemas/SmContextCreatedData'
    binaryDataN2SmInformation:
      Type: string
      Format: binary
  Encoding:
    JSON Data:
      Content Type: application/json
    binaryDataN2SmInformation:
      Content Type: application/vnd.3gpp.ngap
  Headers:
    Content ID:
      Schema:
        Type: string
  Headers:
    Location:
      description: 'Contains the URI of the newly created resource,
according to the structure: {apiRoot}/nsmf-pdusession/v1/sm-contexts/{smContextRef}'

    Required/Optional: true
    Schema:
      Type: string
'307':
  Description: temporary redirect
'308':
  Description: permanent redirect
'400':
  Description: unsuccessful creation of an SM context - bad request
Content:
  Application/JSON: # message without binary body part
  Schema:
    Reference: '#/components/schemas/SmContextCreateError'
  Multipart/Related: # message with binary body part(s)
  Schema:
    Type: object
    Properties: # Request parts
    JSON Data:
      Reference: '#/components/schemas/SmContextCreateError'
    binaryDataN1SmMessage:
      Type: string
      Format: binary
  Encoding:
    JSON Data:
      Content Type: application/json

```



```

    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
      Headers:
        Content ID:
          Schema:
            Type: string
'403':
  Description: unsuccessful creation of an SM context - forbidden
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextCreateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextCreateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
        Headers:
          Content ID:
            Schema:
              Type: string
'404':
  Description: unsuccessful creation of an SM context - not found
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextCreateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextCreateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
        Headers:

```

```

        Content ID:
        Schema:
        Type: string
'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':
  Description: unsuccessful creation of an SM context - internal server error
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextCreateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextCreateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
      Schema:
      Type: string
'503':
  Description: unsuccessful creation of an SM context - service unavailable
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextCreateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextCreateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
    Encoding:

```

```

    JSON Data:
      Content Type: application/json
    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
        Schema:
          Type: string
  '504':
    Description: unsuccessful creation of an SM context - gateway timeout
    Content:
      Application/JSON: # message without binary body part
      Schema:
        Reference: '#/components/schemas/SmContextCreateError'
      Multipart/Related: # message with binary body part(s)
      Schema:
        Type: object
        Properties: # Request parts
        JSON Data:
          Reference: '#/components/schemas/SmContextCreateError'
        binaryDataN1SmMessage:
          Type: string
          Format: binary
      Encoding:
        JSON Data:
          Content Type: application/json
        binaryDataN1SmMessage:
          Content Type: application/vnd.3gpp.5gnas
        Headers:
          Content ID:
            Schema:
              Type: string
    Default:
      Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

## /sm-contexts/{smContextRef}/retrieve

```

Method: Post
Summary: Retrieve SM Context

Tags:
- Individual SM context
Operation ID: RetrieveSmContext

Parameters:
- Name: smContextRef
  In: path
  Description: SM context reference
  Required/Optional: true
  Schema:
    Type: string

```

**Request Body:****Description:** parameters used to retrieve the SM context**Required/Optional:** false**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmContextRetrieveData'**Responses:****'200':****Description:** successful retrieval of an SM context**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmContextRetrievedData'**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'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'

## /sm-contexts/{smContextRef}/modify

**Method:** Post**Summary:** Update SM Context**Tags:**

- Individual SM context

**Operation ID:** UpdateSmContext**Parameters:**- **Name:** smContextRef**In:** path**Description:** SM context reference**Required/Optional:** true**Schema:**

**Type:** string

**Request Body:**

**Description:** representation of the updates to apply to the SM context

**Required/Optional:** true

**Content:**

**Application/JSON:** # message without binary body part

**Schema:**

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

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

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

**binaryDataN1SmMessage:**

**Type:** string

**Format:** binary

**binaryDataN2SmInformation:**

**Type:** string

**Format:** binary

**Encoding:**

**JSON Data:**

**Content Type:** application/json

**binaryDataN1SmMessage:**

**Content Type:** application/vnd.3gpp.5gnas

**Headers:**

**Content ID:**

**Schema:**

**Type:** string

**binaryDataN2SmInformation:**

**Content Type:** application/vnd.3gpp.ngap

**Headers:**

**Content ID:**

**Schema:**

**Type:** string

**Responses:**

**'200':**

**Description:** successful update of an SM context with content in the response

**Content:**

**Application/JSON:** # message without binary body part

**Schema:**

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

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

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

**binaryDataN1SmMessage:**

**Type:** string

**Format:** binary

```

        binaryDataN2SmInformation:
            Type: string
            Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:
            Type: string
    binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
    Headers:
        Content ID:
        Schema:
            Type: string
'204':
    Description: successful update of an SM context without content in the response
'400':
    Description: unsuccessful update of an SM context - bad request
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
                Type: string
                Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:
            Type: string
    binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
    Headers:
        Content ID:

```

```

    Schema:
      Type: string
'403':
  Description: unsuccessful update of an SM context - forbidden
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextUpdateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextUpdateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
      binaryDataN2SmInformation:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
      Headers:
        Content ID:
          Schema:
            Type: string
      binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
      Headers:
        Content ID:
          Schema:
            Type: string
'404':
  Description: unsuccessful update of an SM context - not found
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextUpdateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextUpdateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
      binaryDataN2SmInformation:

```

```

        Type: string
        Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:
            Type: string
    binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
    Headers:
        Content ID:
        Schema:
            Type: string
'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':
    Description: unsuccessful update of an SM context - Internal server error
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
                Type: string
                Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:

```



```

        Type: string
    binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
        Headers:
            Content ID:
            Schema:
            Type: string
'503':
    Description: unsuccessful update of an SM context - Service Unavailable
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
                Type: string
                Format: binary
        Encoding:
            JSON Data:
                Content Type: application/json
            binaryDataN1SmMessage:
                Content Type: application/vnd.3gpp.5gnas
            Headers:
                Content ID:
                Schema:
                Type: string
            binaryDataN2SmInformation:
                Content Type: application/vnd.3gpp.ngap
            Headers:
                Content ID:
                Schema:
                Type: string
    Default:
        Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

## /sm-contexts/{smContextRef}/release

**Method:** Post

**Summary:** Release SM Context

**Tags:**

- Individual SM context

**Operation ID:** ReleaseSmContext

**Parameters:**

- **Name:** smContextRef
  - In:** path
  - Description:** SM context reference
  - Required/Optional:** true
  - Schema:**
    - Type:** string

**Request Body:**

**Description:** representation of the data to be sent to the SMF when releasing the SM context

**Required/Optional:** false

**Content:**

**Application/JSON:** # message without binary body part

**Schema:**

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

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

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

**binaryDataN2SmInformation:**

**Type:** string

**Format:** binary

**Encoding:**

**JSON Data:**

**Content Type:** application/json

**binaryDataN2SmInformation:**

**Content Type:** application/vnd.3gpp.ngap

**Headers:**

**Content ID:**

**Schema:**

**Type:** string

**Responses:**

'204':

**Description:** successful release of an SM context without content in the response

'400':

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

'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'

```

## /pdu-sessions

**Method:** Post

**Summary:** Create

**Tags:**

- PDU sessions collection

**Operation ID:** PostPduSessions

**Request Body:**

**Description:** representation of the PDU session to be created in the H-SMF

**Required/Optional:** true

**Content:**

**Application/JSON:** # message without binary body part

**Schema:**

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

**Multipart/Related:** # message with binary body part(s)

**Schema:**

**Type:** object

**Properties:** # Request parts

**JSON Data:**

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

**binaryDataN1SmInfoFromUe:**

**Type:** string

**Format:** binary

**binaryDataUnknownN1SmInfo:**

**Type:** string

**Format:** binary

**Encoding:**

**JSON Data:**

**Content Type:** application/json

**binaryDataN1SmInfoFromUe:**

**Content Type:** application/vnd.3gpp.5gnas

**Headers:**

**Content ID:**

**Schema:**

**Type:** string

**binaryDataUnknownN1SmInfo:**

**Content Type:** application/vnd.3gpp.5gnas

**Headers:**

**Content ID:**

**Schema:**

```

        Type: string
    Callbacks:
        statusNotification:
            '{$request.body#/vsmfPduSessionUri}':
                Method: Post
                Summary: Notify Status

                Tags:
                    - Individual PDU session (V-SMF)
                Operation ID: NotifyStatus
                Request Body:
                    Description: representation of the status notification
                    Required/Optional: true
                    Content:
                        Application/JSON:
                            Schema:
                                Reference: '#/components/schemas/StatusNotification'

                Responses:
                    '204':
                        Description: successful notification of the status change
                    '400':
                        Reference: 'TS29571_CommonData.yaml#/components/responses/400'
                    '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'

    update:
        '{$request.body#/vsmfPduSessionUri}/modify':
            Method: Post
            Summary: Update (initiated by H-SMF)

            Tags:
                - Individual PDU session (V-SMF)
            Operation ID: ModifyPduSession
            Request Body:
                Description: representation of updates to apply to the PDU session
                Required/Optional: true

```

**Content:****application/+json:** # message without binary body part**Schema:****Reference:** '#/components/schemas/VsmfUpdateData'**Multipart/Related:** # message with binary body part(s)**Schema:****Type:** object**Properties:** # Request parts**JSON Data:****Reference:** '#/components/schemas/VsmfUpdateData'**binaryDataN1SmInfoToUe:****Type:** string**Format:** binary**Encoding:****JSON Data:****Content Type:** application/json**binaryDataN1SmInfoToUe:****Content Type:** application/vnd.3gpp.5gnas**Headers:****Content ID:****Schema:****Type:** string**Responses:****'200':****Description:** successful update of a PDU session with content in the

response

**Content:****Application/JSON:** # message without binary body part**Schema:****Reference:** '#/components/schemas/VsmfUpdatedData'**Multipart/Related:** # message with binary body part(s)**Schema:****Type:** object**Properties:** # Request parts**JSON Data:****Reference:** '#/components/schemas/VsmfUpdatedData'**binaryDataN1SmInfoFromUe:****Type:** string**Format:** binary**binaryDataUnknownN1SmInfo:****Type:** string**Format:** binary**Encoding:****JSON Data:****Content Type:** application/json**binaryDataN1SmInfoFromUe:****Content Type:** application/vnd.3gpp.5gnas**Headers:****Content ID:****Schema:****Type:** string

```

        binaryDataUnknownN1SmInfo:
          Content Type: application/vnd.3gpp.5gnas
          Headers:
            Content ID:
              Schema:
                Type: string
      '204':
        Description: successful update of a PDU session without content in the
response
      '400':
        Reference: '#/components/responses/VsmfUpdateError'
      '403':
        Reference: '#/components/responses/VsmfUpdateError'
      '404':
        Reference: '#/components/responses/VsmfUpdateError'
      '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: '#/components/responses/VsmfUpdateError'
      '503':
        Reference: '#/components/responses/VsmfUpdateError'
      '504':
        Reference: '#/components/responses/VsmfUpdateError'
    Default:
      Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

**Responses:**

```

'201':
  Description: successful creation of a PDU session
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/PduSessionCreatedData'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/PduSessionCreatedData'
      binaryDataN1SmInfoToUe:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmInfoToUe:

```

```

    Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
        Schema:
          Type: string
    Headers:
      Location:
        description: 'Contains the URI of the newly created resource,
according to the structure: {apiRoot}/nsmf-pdusession/v1/pdu-sessions/{pduSessionRef}'

    Required/Optional: true
    Schema:
      Type: string
'307':
  Description: temporary redirect
'308':
  Description: permanent redirect
'400':
  Reference: '#/components/responses/PduSessionCreateError'
'403':
  Reference: '#/components/responses/PduSessionCreateError'
'404':
  Reference: '#/components/responses/PduSessionCreateError'
'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: '#/components/responses/PduSessionCreateError'
'503':
  Reference: '#/components/responses/PduSessionCreateError'
Default:
  Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

## /pdu-sessions/{pduSessionRef}/modify

**Method:** Post

**Summary:** Update (initiated by V-SMF)

**Tags:**

- Individual PDU session (H-SMF)

**Operation ID:** UpdatePduSession

**Parameters:**

- **Name:** pduSessionRef

**In:** path

**Description:** PDU session reference

```

    Required/Optional: true
    Schema:
      Type: string
  Request Body:
    Description: representation of the updates to apply to the PDU session
    Required/Optional: true
    Content:
      Application/JSON: # message without binary body part
      Schema:
        Reference: '#/components/schemas/HsmfUpdateData'
      Multipart/Related: # message with binary body part(s)
      Schema:
        Type: object
        Properties: # Request parts
        JSON Data:
          Reference: '#/components/schemas/HsmfUpdateData'
        binaryDataN1SmInfoFromUe:
          Type: string
          Format: binary
        binaryDataUnknownN1SmInfo:
          Type: string
          Format: binary
      Encoding:
        JSON Data:
          Content Type: application/json
        binaryDataN1SmInfoFromUe:
          Content Type: application/vnd.3gpp.5gnas
        Headers:
          Content ID:
            Schema:
              Type: string
        binaryDataUnknownN1SmInfo:
          Content Type: application/vnd.3gpp.5gnas
        Headers:
          Content ID:
            Schema:
              Type: string
  Responses:
    '200':
      Description: successful update of a PDU session with content in the response
      Content:
        Application/JSON: # message without binary body part
        Schema:
          Reference: '#/components/schemas/HsmfUpdatedData'
        Multipart/Related: # message with binary body part(s)
        Schema:
          Type: object
          Properties: # Request parts
          JSON Data:
            Reference: '#/components/schemas/HsmfUpdatedData'
          binaryDataN1SmInfoToUe:

```



```

        Type: string
        Format: binary
    Encoding:
        JSON Data:
            Content Type: application/json
        binaryDataN1SmInfoToUe:
            Content Type: application/vnd.3gpp.5gnas
        Headers:
            Content ID:
                Schema:
                    Type: string
    '204':
        Description: successful update of a PDU session without content in the response
    '400':
        Reference: '#/components/responses/HsmfUpdateError'
    '403':
        Reference: '#/components/responses/HsmfUpdateError'
    '404':
        Reference: '#/components/responses/HsmfUpdateError'
    '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: '#/components/responses/HsmfUpdateError'
    '503':
        Reference: '#/components/responses/HsmfUpdateError'
    Default:
        Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

## /pdu-sessions/{pduSessionRef}/release

**Method:** Post

**Summary:** Release

**Tags:**

- Individual PDU session (H-SMF)

**Operation ID:** ReleasePduSession

**Parameters:**

- **Name:** pduSessionRef

**In:** path

**Description:** PDU session reference

**Required/Optional:** true

**Schema:**

**Type:** string

**Request Body:**

**Description:** representation of the data to be sent to H-SMF when releasing the PDU session

**Required/Optional:** false

**Content:**

**Application/JSON:**

**Schema:**

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

**Responses:**

**'204':**

**Description:** successful release of a PDU session

**'400':**

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

**'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'

## Components

**securitySchemes:**

**oAuth2ClientCredentials:**

**Type:** oauth2

**Flows:**

**clientCredentials:**

**tokenUrl:** '{nrfApiRoot}/oauth2/token'

**scopes:**

**nsmf-pdusession:** Access to the nsmf-pdusession API

**schemas:**

# STRUCTURED DATA TYPES

**SmContextCreateData:**

**Type:** object

**Properties:**

**supi:**

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

```

unauthenticatedSupi:
  Type: boolean
  Default: false
pei:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
gpsi:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
pduSessionId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
dnn:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
sNssai:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
hplmnSnssai:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
servingNfId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
guami:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
serviceName:
  Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
servingNetwork:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
requestType:
  Reference: '#/components/schemas/RequestType'
n1SmMsg:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
anType:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
ratType:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
presenceInLadn:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceState'
ueLocation:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
ueTimeZone:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
addUeLocation:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
smContextStatusUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
hSmfUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
additionalHsmfUri:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  minItems: 1
oldPduSessionId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
pduSessionsActivateList:

```

```

    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    minItems: 1
  ueEpsPdnConnection:
    Reference: '#/components/schemas/EpsPdnCnxContainer'
  hoState:
    Reference: '#/components/schemas/HoState'
  pcfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  nrfUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  selMode:
    Reference: '#/components/schemas/DnnSelectionMode'
  backupAmfInfo:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
    minItems: 1
  traceData:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
  udmGroupId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
  routingIndicator:
    Type: string
  epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
  indirectForwardingFlag:
    Type: boolean
  Required:
    - servingNfId
    - servingNetwork
    - anType
    - smContextStatusUri
  SmContextCreatedData:
    Type: object
  Properties:
    hSmfUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    sNssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    upCnxState:
      Reference: '#/components/schemas/UpCnxState'
    n2SmInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfoType:
      Reference: '#/components/schemas/N2SmInfoType'
    allocatedEbiList:

```

```

    Type: array
    Items:
      Reference: '#/components/schemas/EbiArpMapping'
    minItems: 1
  hoState:
    Reference: '#/components/schemas/HoState'
  smfServiceInstanceId:
    Type: string
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
SmContextUpdateData:
  Type: object
  Properties:
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    gpsi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    servingNfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    guami:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    servingNetwork:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
    backupAmfInfo:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
      minItems: 1
      nullable: true
    anType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    ratType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
    presenceInLadn:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceState'
    ueLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    ueTimeZone:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
    addUeLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    upCnxState:
      Reference: '#/components/schemas/UpCnxState'
    hoState:
      Reference: '#/components/schemas/HoState'
    toBeSwitched:
      Type: boolean
      Default: false
    failedToBeSwitched:

```

```

    Type: boolean
  n1SmMsg:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  n2SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  n2SmInfoType:
    Reference: '#/components/schemas/N2SmInfoType'
  targetServingNfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  smContextStatusUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  dataForwarding:
    Type: boolean
    Default: false
  epsBearerSetup:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerContainer'
    minItems: 0
  revokeEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  release:
    Type: boolean
    Default: false
  cause:
    Reference: '#/components/schemas/Cause'
  ngApCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  5gMmCauseValue:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
  sNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  traceData:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
  epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
  anTypeCanBeChanged:
    Type: boolean
    Default: false
  smContextUpdatedData:
    Type: object
  Properties:
    upCnxState:
      Reference: '#/components/schemas/UpCnxState'
    hoState:
      Reference: '#/components/schemas/HoState'
    releaseEbiList:
      Type: array

```

```

    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  allocatedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EbiArpMapping'
    minItems: 1
  modifiedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EbiArpMapping'
    minItems: 1
  n1SmMsg:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  n2SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  n2SmInfoType:
    Reference: '#/components/schemas/N2SmInfoType'
  epsBearerSetup:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerContainer'
    minItems: 1
  dataForwarding:
    Type: boolean
SmContextReleaseData:
  Type: object
  Properties:
    cause:
      Reference: '#/components/schemas/Cause'
    ngApCause:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
    5gMmCauseValue:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/5GmCause'
    ueLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    ueTimeZone:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
    addUeLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    vsmfReleaseOnly:
      Type: boolean
      Default: false
SmContextStatusNotification:
  Type: object
  Properties:
    statusInfo :
      Reference: '#/components/schemas/StatusInfo'
  Required:
    - statusInfo
PduSessionCreateData:

```

```

Type: object
Properties:
  supi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  unauthenticatedSupi:
    Type: boolean
    Default: false
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  dnn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
  sNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  vsmfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  servingNetwork:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
  requestType:
    Reference: '#/components/schemas/RequestType'
  epsBearerId:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  pgwS8cFteid:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
  vsmfPduSessionUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  vcnTunnelInfo:
    Reference: '#/components/schemas/TunnelInfo'
  anType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  ueLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  ueTimeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
  addUeLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  gpsi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
  n1SmInfoFromUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  unknownN1SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  hPcfId:

```



**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'  
**hoPreparationIndication:**  
**Type:** boolean  
**selMode:**  
**Reference:** '#/components/schemas/DnnSelectionMode'  
**alwaysOnRequested:**  
**Type:** boolean  
**Default:** false  
**udmGroupId:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfGroupId'  
**routingIndicator:**  
**Type:** string  
**epsInterworkingInd:**  
**Reference:** '#/components/schemas/EpsInterworkingIndication'  
**vSmfServiceInstanceId:**  
**Type:** string  
**recoveryTime:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/DateTime'  
**roamingChargingProfile:**  
**Reference:**  
'TS32291\_Nchf\_ConvergedCharging.yaml#/components/schemas/RoamingChargingProfile'  
**chargingId:**  
**Type:** string  
**oldPduSessionId:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PduSessionId'  
**Required:**

- dnn
- vsmfId
- servingNetwork
- vsmfPduSessionUri
- vcnTunnelInfo
- anType

**PduSessionCreatedData:**  
**Type:** object  
**Properties:**  
**pduSessionType:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PduSessionType'  
**sscMode:**  
**Type:** string  
**Pattern:** '^ [0-7] \$'  
**hcnTunnelInfo:**  
**Reference:** '#/components/schemas/TunnelInfo'  
**sessionAmbr:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ambr'  
**qosFlowsSetupList:**  
**Type:** array  
**Items:**  
**Reference:** '#/components/schemas/QosFlowSetupItem'  
**minItems:** 1  
**hSmfInstanceId:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'  
**pduSessionId:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PduSessionId'

```

sNssai:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
enablePauseCharging:
  Type: boolean
  Default: false
ueIpv4Address:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
ueIpv6Prefix:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Prefix'
n1SmInfoToUe:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
epsPdnCnxInfo:
  Reference: '#/components/schemas/EpsPdnCnxInfo'
epsBearerInfo:
  Type: array
  Items:
    Reference: '#/components/schemas/EpsBearerInfo'
  minItems: 1
supportedFeatures:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
maxIntegrityProtectedDataRate:
  Reference: '#/components/schemas/MaxIntegrityProtectedDataRate'
alwaysOnGranted:
  Type: boolean
  Default: false
upSecurity:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/UpSecurity'
roamingChargingProfile:
  Reference:
'TS32291_Nchf_ConvergedCharging.yaml#/components/schemas/RoamingChargingProfile'
hSmfServiceInstanceId:
  Type: string
recoveryTime:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
Required:
- pduSessionType
- sscMode
- hcnTunnelInfo
- sessionAmbr
- qosFlowsSetupList
- hSmfInstanceId
HsmfUpdateData:
  Type: object
Properties:
  requestIndication:
    Reference: '#/components/schemas/RequestIndication'
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  vcnTunnelInfo:
    Reference: '#/components/schemas/TunnelInfo'
  servingNetwork:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
anType:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  ueLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  ueTimeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
  addUeLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  pauseCharging:
    Type: boolean
  pti:
    Reference: '#/components/schemas/ProcedureTransactionId'
  n1SmInfoFromUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  unknownN1SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  qosFlowsRelNotifyList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowItem'
    minItems: 1
  qosFlowsNotifyList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowNotifyItem'
    minItems: 1
  NotifyList:
    Type: array
    Items:
      Reference: '#/components/schemas/PduSessionNotifyItem'
    minItems: 1
  epsBearerId:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 0
  hoPreparationIndication:
    Type: boolean
  revokeEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  cause:
    Reference: '#/components/schemas/Cause'
  ngApCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  5gMmCauseValue:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
  alwaysOnRequested:

```

```

    Type: boolean
    Default: false
  epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
  secondaryRatUsageReport:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SecondaryRatUsageReport'

    minItems: 1
  Required:
    - requestIndication
  HsmfUpdatedData:
    Type: object
    Properties:
      n1SmInfoToUe:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  ReleaseData:
    Type: object
    Properties:
      cause:
        Reference: '#/components/schemas/Cause'
      ngApCause:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
      5gMmCauseValue:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
      ueLocation:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
      ueTimeZone:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
      addUeLocation:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
      secondaryRatUsageReport:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/SecondaryRatUsageReport'

    minItems: 1
  ReleasedData:
    Type: object
  VsmfUpdateData:
    Type: object
    Properties:
      requestIndication:
        Reference: '#/components/schemas/RequestIndication'
      sessionAmbr:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Ambr'
      qosFlowsAddModRequestList:
        Type: array
        Items:
          Reference: '#/components/schemas/QosFlowAddModifyRequestItem'
    minItems: 1

```

```

qosFlowsRelRequestList:
  Type: array
  Items:
    Reference: '#/components/schemas/QosFlowReleaseRequestItem'
  minItems: 1
epsBearerInfo:
  Type: array
  Items:
    Reference: '#/components/schemas/EpsBearerInfo'
  minItems: 1
assignEbiList:
  Type: array
  Items:
    Reference: '#/components/schemas/EpsBearerId'
  minItems: 1
revokeEbiList:
  Type: array
  Items:
    Reference: '#/components/schemas/EpsBearerId'
  minItems: 1
modifiedEbiList:
  Type: array
  Items:
    Reference: '#/components/schemas/EbiArpMapping'
  minItems: 1
pti:
  Reference: '#/components/schemas/ProcedureTransactionId'
n1smInfoToUe:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
alwaysOnGranted:
  Type: boolean
  Default: false
cause:
  Reference: '#/components/schemas/Cause'
n1smCause:
  Type: string
backOffTimer:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
Required:
  - requestIndication
VsmfUpdatedData:
Type: object
Properties:
  qosFlowsAddModList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowItem'
    minItems: 1
  qosFlowsRelList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowItem'

```

```

    minItems: 1
  qosFlowsFailedToAddModList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowItem'
    minItems: 1
  qosFlowsFailedToRelList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowItem'
    minItems: 1
  n1SmInfoFromUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  unknownN1SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  ueLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  ueTimeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
  addUeLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  assignedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EbiArpMapping'
    minItems: 1
  failedToAssignEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  releasedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  secondaryRatUsageReport:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SecondaryRatUsageReport'
    minItems: 1
  StatusNotification:
    Type: object
    Properties:
      statusInfo :
        Reference: '#/components/schemas/StatusInfo'
    Required:
      - statusInfo
  QosFlowItem:
    Type: object
    Properties:

```

```

    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    cause:
      Reference: '#/components/schemas/Cause'
  Required:
  - qfi
QosFlowSetupItem:
  Type: object
  Properties:
    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    qosRules:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    ebi:
      Reference: '#/components/schemas/EpsBearerId'
    qosFlowDescription:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowProfile:
      Reference: '#/components/schemas/QosFlowProfile'
  Required:
  - qfi
  - qosRules
QosFlowAddModifyRequestItem:
  Type: object
  Properties:
    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    ebi:
      Reference: '#/components/schemas/EpsBearerId'
    qosRules:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowDescription:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowProfile:
      Reference: '#/components/schemas/QosFlowProfile'
  Required:
  - qfi
QosFlowReleaseRequestItem:
  Type: object
  Properties:
    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    qosRules:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowDescription:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
  Required:
  - qfi
QosFlowProfile:
  Type: object
  Properties:
    5qi:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/5Qi'
nonDynamic5Qi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NonDynamic5Qi'
dynamic5Qi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dynamic5Qi'
arp:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
gbrQosFlowInfo:
    Reference: '#/components/schemas/GbrQosFlowInformation'
rqa:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ReflectiveQoSAttribute'
additionalQosFlowInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AdditionalQosFlowInfo'
Required:
- 5qi
GbrQosFlowInformation:
Type: object
Properties:
    maxFbrDl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    maxFbrUl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    guaFbrDl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    guaFbrUl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    notifControl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NotificationControl'
    maxPacketLossRateDl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PacketLossRate'
    maxPacketLossRateUl:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PacketLossRate'
Required:
- maxFbrDl
- maxFbrUl
- guaFbrDl
- guaFbrUl
QosFlowNotifyItem:
Type: object
Properties:
    qfi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    notificationCause:
        Reference: '#/components/schemas/NotificationCause'
Required:
- qfi
- notificationCause
SmContextRetrieveData:
Type: object
Properties:
    targetMmeCap:
        Reference: '#/components/schemas/MmeCapabilities'
SmContextRetrievedData:

```



**Type:** object  
**Properties:**  
  **ueEpsPdnConnection:**  
    **Reference:** '#/components/schemas/EpsPdnCnxContainer'  
**Required:**  
  - ueEpsPdnConnection  
**MmeCapabilities:**  
**Type:** object  
**Properties:**  
  **nonIpSupported:**  
    **Type:** boolean  
    **Default:** false  
**TunnelInfo:**  
**Type:** object  
**Properties:**  
  **ipv4Addr:**  
    **Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'  
  **ipv6Addr:**  
    **Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'  
  **gtpTeid:**  
    **Reference:** '#/components/schemas/Teid'  
**Required:**  
  - gtpTeid  
**StatusInfo:**  
**Type:** object  
**Properties:**  
  **resourceStatus:**  
    **Reference:** '#/components/schemas/ResourceStatus'  
  **cause:**  
    **Reference:** '#/components/schemas/Cause'  
**Required:**  
  - resourceStatus  
**EpsPdnCnxInfo:**  
**Type:** object  
**Properties:**  
  **pgwS8cFteid:**  
    **Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Bytes'  
  **pgwNodeName:**  
    **Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Bytes'  
**Required:**  
  - pgwS8cFteid  
**EpsBearerInfo:**  
**Type:** object  
**Properties:**  
  **ebi:**  
    **Reference:** '#/components/schemas/EpsBearerId'  
  **pgwS8uFteid:**  
    **Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Bytes'  
  **bearerLevelQoS:**  
    **Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Bytes'  
**Required:**  
  - ebi  
  - pgwS8uFteid

```

    - bearerLevelQoS
PduSessionNotifyItem:
  Type: object
  Properties:
    notificationCause:
      Reference: '#/components/schemas/NotificationCause'
  Required:
    - notificationCause
EbiArpMapping:
  Type: object
  Properties:
    epsBearerId:
      Reference: '#/components/schemas/EpsBearerId'
    arp:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
  Required:
    - epsBearerId
    - arp
SmContextCreateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    n1SmMsg:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    recoveryTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
SmContextUpdateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    n1SmMsg:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfoType:
      Reference: '#/components/schemas/N2SmInfoType'
    upCnxState:
      Reference: '#/components/schemas/UpCnxState'
    recoveryTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
PduSessionCreateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    n1smCause:
      Type: string

```

```

    Pattern: '^[A-F0-9]{2}$'
n1SmInfoToUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
backOffTimer:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
Required:
  - error
HsmfUpdateError:
Type: object
Properties:
  error:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  pti:
    Reference: '#/components/schemas/ProcedureTransactionId'
  n1smCause:
    Type: string
    Pattern: '^[A-F0-9]{2}$'
  n1SmInfoToUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  backOffTimer:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
Required:
  - error
VsmfUpdateError:
Type: object
Properties:
  error:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  pti:
    Reference: '#/components/schemas/ProcedureTransactionId'
  n1smCause:
    Type: string
    Pattern: '^[A-F0-9]{2}$'
  n1SmInfoFromUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  unknownN1SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  failedToAssignEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  ngApCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  5gMmCauseValue:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'

```

```

Required:
  - error
# SIMPLE DATA TYPES
ProcedureTransactionId:
  Type: integer
  Minimum: 0
  Maximum: 255
EpsBearerId:
  Type: integer
  Minimum: 0
  Maximum: 15
EpsPdnCnxContainer:
  Type: string
EpsBearerContainer:
  Type: string
Teid:
  Type: string
  Pattern: '^[A-F0-9]{8}$'
# ENUMERATIONS
UpCnxState:
  anyOf:
    - type: string
      enum:
        - ACTIVATED
        - DEACTIVATED
        - ACTIVATING
    - 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
        - ACTIVATED
        - DEACTIVATED
        - ACTIVATING
HoState:
  anyOf:
    - type: string
      enum:
        - NONE
        - PREPARING
        - PREPARED
        - COMPLETED
        - CANCELLED
    - 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
        - NONE
        - PREPARING
        - PREPARED
        - COMPLETED
        - CANCELLED
RequestType:

```

**anyOf:**

- type: string

**enum:**

- INITIAL\_REQUEST
- EXISTING\_PDU\_SESSION
- INITIAL\_EMERGENCY\_REQUEST
- EXISTING\_EMERGENCY\_PDU\_SESSION

- 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

- INITIAL\_REQUEST
- EXISTING\_PDU\_SESSION
- INITIAL\_EMERGENCY\_REQUEST
- EXISTING\_EMERGENCY\_PDU\_SESSION

**RequestIndication:****anyOf:**

- type: string

**enum:**

- UE\_REQ\_PDU\_SES\_MOD
- UE\_REQ\_PDU\_SES\_REL
- PDU\_SES\_MOB
- NW\_REQ\_PDU\_SES\_AUTH
- NW\_REQ\_PDU\_SES\_MOD
- NW\_REQ\_PDU\_SES\_REL
- EBI\_ASSIGNMENT\_REQ

- 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

- UE\_REQ\_PDU\_SES\_MOD
- UE\_REQ\_PDU\_SES\_REL
- PDU\_SES\_MOB
- NW\_REQ\_PDU\_SES\_AUTH
- NW\_REQ\_PDU\_SES\_MOD
- NW\_REQ\_PDU\_SES\_REL
- EBI\_ASSIGNMENT\_REQ

**NotificationCause:****anyOf:**

- type: string

**enum:**

- QOS\_FULFILLED
- QOS\_NOT\_FULFILLED
- UP\_SEC\_FULFILLED
- UP\_SEC\_NOT\_FULFILLED

- 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

- QOS\_FULFILLED
- QOS\_NOT\_FULFILLED
- UP\_SEC\_FULFILLED

- UP\_SEC\_NOT\_FULFILLED

**Cause:**

**anyOf:**

- type: string

**enum:**

- REL\_DUE\_TO\_HO
- EPS\_FALLBACK
- REL\_DUE\_TO\_UP\_SEC
- DNN\_CONGESTION
- S-NSSAI\_CONGESTION
- REL\_DUE\_TO\_REACTIVATION
- 5G\_AN\_NOT\_RESPONDING
- REL\_DUE\_TO\_SLICE\_NOT\_AVAILABLE
- REL\_DUE\_TO\_DUPLICATE\_SESSION\_ID
- PDU\_SESSION\_STATUS\_MISMATCH
- HO\_FAILURE

- 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
- REL\_DUE\_TO\_HO
  - EPS\_FALLBACK
  - REL\_DUE\_TO\_UP\_SEC
  - DNN\_CONGESTION
  - S-NSSAI\_CONGESTION
  - REL\_DUE\_TO\_REACTIVATION
  - 5G\_AN\_NOT\_RESPONDING
  - REL\_DUE\_TO\_SLICE\_NOT\_AVAILABLE
  - REL\_DUE\_TO\_DUPLICATE\_SESSION\_ID
  - PDU\_SESSION\_STATUS\_MISMATCH
  - HO\_FAILURE

**ResourceStatus:**

**anyOf:**

- type: string

**enum:**

- RELEASED

- 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
- RELEASED

**DnnSelectionMode:**

**anyOf:**

- type: string

**enum:**

- VERIFIED
- UE\_DNN\_NOT\_VERIFIED
- NW\_DNN\_NOT\_VERIFIED

- 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

- VERIFIED
- UE\_DNN\_NOT\_VERIFIED
- NW\_DNN\_NOT\_VERIFIED

**EpsInterworkingIndication:****anyOf:**

- type: string
- enum:**
  - NONE
  - WITH\_N26
  - WITHOUT\_N26

- 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

- NONE
- WITH\_N26
- WITHOUT\_N26

**N2SmInfoType:****anyOf:**

- type: string
- enum:**
  - PDU\_RES\_SETUP\_REQ
  - PDU\_RES\_SETUP\_RSP
  - PDU\_RES\_SETUP\_FAIL
  - PDU\_RES\_REL\_CMD
  - PDU\_RES\_REL\_RSP
  - PDU\_RES\_MOD\_REQ
  - PDU\_RES\_MOD\_RSP
  - PDU\_RES\_MOD\_FAIL
  - PDU\_RES\_NTY
  - PDU\_RES\_NTY\_REL
  - PDU\_RES\_MOD\_IND
  - PDU\_RES\_MOD\_CFM
  - PATH\_SWITCH\_REQ
  - PATH\_SWITCH\_SETUP\_FAIL
  - PATH\_SWITCH\_REQ\_ACK
  - PATH\_SWITCH\_REQ\_FAIL
  - HANDOVER\_REQUIRED
  - HANDOVER\_CMD
  - HANDOVER\_PREP\_FAIL
  - HANDOVER\_REQ\_ACK
  - HANDOVER\_RES\_ALLOC\_FAIL

- 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\_RES\_SETUP\_REQ
- PDU\_RES\_SETUP\_RSP
- PDU\_RES\_SETUP\_FAIL
- PDU\_RES\_REL\_CMD
- PDU\_RES\_REL\_RSP
- PDU\_RES\_MOD\_REQ
- PDU\_RES\_MOD\_RSP
- PDU\_RES\_MOD\_FAIL
- PDU\_RES\_NTY
- PDU\_RES\_NTY\_REL

- PDU\_RES\_MOD\_IND
- PDU\_RES\_MOD\_CFM
- PATH\_SWITCH\_REQ
- PATH\_SWITCH\_SETUP\_FAIL
- PATH\_SWITCH\_REQ\_ACK
- PATH\_SWITCH\_REQ\_FAIL
- HANDOVER\_REQUIRED
- HANDOVER\_CMD
- HANDOVER\_PREP\_FAIL
- HANDOVER\_REQ\_ACK
- HANDOVER\_RES\_ALLOC\_FAIL

**MaxIntegrityProtectedDataRate:****anyOf:**

- type: string
  - enum:**
    - 64\_KBPS
    - MAX\_UE\_RATE
- 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

- 64\_KBPS
- MAX\_UE\_RATE

# HTTP responses

**responses:****'PduSessionCreateError':**

**Description:** unsuccessful creation of a PDU session

**content:**

- application/json:** # message without binary body part
  - schema:**
    - Reference:** '#/components/schemas/PduSessionCreateError'
- multipart/related:** # message with binary body part(s)
  - schema:**
    - Type:** object
    - Properties:** # Request parts
      - jsonData:**
        - Reference:** '#/components/schemas/PduSessionCreateError'
      - binaryDataN1SmInfoToUe:**
        - Type:** string
        - format:** binary

**encoding:**

- jsonData:**
  - contentType:** application/json
- binaryDataN1SmInfoToUe:**
  - contentType:** application/vnd.3gpp.5gnas
- headers:**
  - Content-Id:**
    - schema:**
      - Type:** string

**'HsmfUpdateError':**

**Description:** unsuccessful update of a PDU session

**content:**

- application/json:** # message without binary body part



```

    schema:
      Reference: '#/components/schemas/HsmfUpdateError'
multipart/related: # message with binary body part(s)
  schema:
    Type: object
    Properties: # Request parts
    jsonData:
      Reference: '#/components/schemas/HsmfUpdateError'
    binaryDataN1SmInfoToUe:
      Type: string
      format: binary
  encoding:
    jsonData:
      contentType: application/json
    binaryDataN1SmInfoToUe:
      contentType: application/vnd.3gpp.5gnas
    headers:
      Content-Id:
        schema:
          Type: string
'VsmfUpdateError':
  Description: unsuccessful update of a PDU session
  content:
    application/json: # message without binary body part
    schema:
      Reference: '#/components/schemas/VsmfUpdateError'
multipart/related: # message with binary body part(s)
  schema:
    Type: object
    Properties: # Request parts
    jsonData:
      Reference: '#/components/schemas/VsmfUpdateError'
    binaryDataN1SmInfoFromUe:
      Type: string
      format: binary
    binaryDataUnknownN1SmInfo:
      Type: string
      format: binary
  encoding:
    jsonData:
      contentType: application/json
    binaryDataN1SmInfoFromUe:
      contentType: application/vnd.3gpp.5gnas
    headers:
      Content-Id:
        schema:
          Type: string
    binaryDataUnknownN1SmInfo:
      contentType: application/vnd.3gpp.5gnas
    headers:
      Content-Id:

```

```
schema:  
  Type: string
```



## CHAPTER 9

# Nudm\_SDM

---

This service is used by Consumer NFs (AMF, SMF, SMSF) to retrieve the UE's individual subscription data relevant to the consumer NF from the UDM.

Reference: 3GPP TS 29.503 Unified Data Management Services, version 15.3.0

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- [External Docs, on page 216](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '2.1.0.alpha-4'

**Title:** 'Nudm\_SDM'

**Description:** |

Nudm Subscriber Data Management Service.

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## Servers

**URL:** '{apiRoot}/nudm-sdm/v2'

**Variables:**

**API Root:**

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

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

# Security

```
- oAuth2ClientCredentials:  
  - nudm-sdm  
- {}
```

## Paths

### {supi}

#### get:

**Summary:** retrieve multiple data sets

**Operation ID:** GetDataSets

#### Tags:

- Retrieval of multiple data sets

#### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** dataset-names  
**In:** query  
**Style:** form  
**Explode:** false  
**Description:** List of dataset names  
**Required/Optional:** true  
**Schema:**  
**Reference:** '#/components/schemas/DatasetNames'
- **Name:** plmn-id  
**In:** query  
**Description:** serving PLMN ID  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2

**Schema:**  
**Type:** string

- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:**

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SubscriptionDataSets'

**Headers:**  
**Cache-Control:**  
**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**  
**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3  
**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2  
**Schema:**  
**Type:** string

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{supi}/nssai

**get:**  
**Summary:** retrieve a UE's subscribed NSSAI  
**Operation ID:** GetNSSAI

**Tags:**  
- Slice Selection Subscription Data Retrieval

**Parameters:**

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** plmn-id  
**In:** query  
**Description:** serving PLMN ID  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:**

- '200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/Nssai'
- Headers:**  
**Cache-Control:**  
**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2  
**Schema:**  
**Type:** string
- ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3  
**Schema:**  
**Type:** string
- Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2  
**Schema:**

```

    Type: string
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error

```

## /{supi}/am-data

### get:

**Summary:** retrieve a UE's Access and Mobility Subscription Data  
**Operation ID:** GetAmData

### Tags:

- Access and Mobility Subscription Data Retrieval

### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** plmn-id  
**In:** query  
**Description:** serving PLMN ID  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:****'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/AccessAndMobilitySubscriptionData'**Headers:****Cache-Control:****Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2**Schema:****Type:** string**ETag:****Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3**Schema:****Type:** string**Last-Modified:****Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2**Schema:****Type:** string**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error

## /{supi}/am-data/ecr-data

**get:****Summary:** retrieve a UE's subscribed Enhanced Coverage Restriction Data**Operation ID:** GetEcrData**Tags:**

- Enhanced Coverage Restriction Data Retrieval

**Parameters:**- **Name:** supi**In:** path**Description:** Identifier of the UE**Required/Optional:** true**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'- **Name:** supported-features



**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string

- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:**

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/EnhancedCoverageRestrictionData'

**Headers:**

**Cache-Control:**  
**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2  
**Schema:**  
**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3  
**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2  
**Schema:**  
**Type:** string

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{supi}/smf-select-data

### get:

**Summary:** retrieve a UE's SMF Selection Subscription Data

**Operation ID:** GetSmfSelData

### Tags:

- SMF Selection Subscription Data Retrieval

### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** plmn-id  
**In:** query  
**Description:** serving PLMN ID  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

### Responses:

'200':

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

**Headers:**

**Cache-Control:**

**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**

**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3

**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2

**Schema:**  
**Type:** string

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{supi}/ue-context-in-smf-data

### get:

**Summary:** retrieve a UE's UE Context In SMF Data

**Operation ID:** GetUeCtxInSmfData

### Tags:

- UE Context In SMF Data Retrieval

### Parameters:

- **Name:** supi

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

### Schema:

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

- **Name:** supported-features

**In:** query

**Description:** Supported Features

### Schema:

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

### Responses:

'200':

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

'400':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
 '404':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'  
 '500':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
 '503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{supi}/ue-context-in-smsf-data

### get:

**Summary:** retrieve a UE's UE Context In SMSF Data

**Operation ID:** GetUeCtxInSmsfData

### Tags:

- UE Context In SMSF Data Retrieval

### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'  
 - **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

### Responses:

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/UeContextInSmsfData'  
 '400':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
 '404':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'  
 '500':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
 '503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{supi}/trace-data

### get:

**Summary:** retrieve a UE's Trace Configuration Data

**Operation ID:** GetTraceConfigData

### Tags:

- Trace Configuration Data Retrieval

### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** plmn-id  
**In:** query  
**Description:** serving PLMN ID  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

### Responses:

'200':

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

**Headers:**

**Cache-Control:**

**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**

**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3

**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2

**Schema:**  
**Type:** string

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{supi}/sm-data

### get:

**Summary:** retrieve a UE's Session Management Subscription Data

**Operation ID:** GetSmData

### Tags:

- Session Management Subscription Data Retrieval

### Parameters:

- **Name:** supi

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

**Schema:**

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

- **Name:** supported-features

**In:** query

**Description:** Supported Features

**Schema:**

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

- **Name:** single-nssai

**In:** query

**Content:**

**Application/JSON:**

**Schema:**

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

- **Name:** dnn

**In:** query

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

- **Name:** plmn-id  
**In:** query  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:**

**'200':**  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Type:** array  
**Items:**  
**Reference:** '#/components/schemas/SessionManagementSubscriptionData'  
**Min Items:** 1

**Headers:**

**Cache-Control:**  
**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**  
**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3

**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2

**Schema:**  
**Type:** string

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

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

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

**'503':**

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{supi}/sms-data

### get:

**Summary:** retrieve a UE's SMS Subscription Data

**Operation ID:** GetSmsData

### Tags:

- SMS Subscription Data Retrieval

### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** plmn-id  
**In:** query  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

### Responses:

- '200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsSubscriptionData'
- Headers:**  
**Cache-Control:**



**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**  
**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3

**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2

**Schema:**  
**Type:** string

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{supi}/sms-mng-data

### get:

**Summary:** retrieve a UE's SMS Management Subscription Data

**Operation ID:** GetSmsMngtData

### Tags:

- SMS Management Subscription Data Retrieval

### Parameters:

- **Name:** supi

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

**Schema:**

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

- **Name:** supported-features

**In:** query

**Description:** Supported Features

**Schema:**

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

- **Name:** plmn-id

**In:** query

**Content:**

**Application/JSON:**

**Schema:**

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

- **Name:** If-None-Match
  - In:** header
  - Description:** Validator for conditional requests, as described in RFC 7232, 3.2
  - Schema:**
    - Type:** string
- **Name:** If-Modified-Since
  - In:** header
  - Description:** Validator for conditional requests, as described in RFC 7232, 3.3
  - Schema:**
    - Type:** string

**Responses:**

**'200':**

- Description:** Expected response to a valid request
- Content:**
  - Application/JSON:**
    - Schema:**
      - Reference:** '#/components/schemas/SmsManagementSubscriptionData'
  - Headers:**
    - Cache-Control:**
      - Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2
      - Schema:**
        - Type:** string
    - ETag:**
      - Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3
      - Schema:**
        - Type:** string
    - Last-Modified:**
      - Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2
      - Schema:**
        - Type:** string
- '400':**
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'
- '404':**
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'
- '500':**
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'
- '503':**
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'
- Default:**
  - Description:** Unexpected error

## {ueld}/lcs-privacy-data

### get:

**Summary:** retrieve a UE's LCS Privacy Subscription Data

**Operation ID:** GetLcsPrivacyData

**Tags:**

- LCS Privacy Data Retrieval

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:****'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/LcsPrivacyData'**Headers:****Cache-Control:****Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2**Schema:****Type:** string**ETag:****Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3**Schema:****Type:** string**Last-Modified:****Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2**Schema:****Type:** string**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'404':**

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'  
**'500':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
**'503':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{supi}/lcs-mo-data

### get:

**Summary:** retrieve a UE's LCS Mobile Originated Subscription Data

**Operation ID:** GetLcsMoData

### Tags:

- LCS Mobile Originated Data Retrieval

### Parameters:

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** plmn-id  
**In:** query  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

### Responses:

- **'200':**  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**

**Schema:**  
**Reference:** '#/components/schemas/LcsMoData'

**Headers:**  
**Cache-Control:**  
**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**  
**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3

**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2

**Schema:**  
**Type:** string

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{ueId}/sdm-subscriptions

**Method:** Post

**Summary:** subscribe to notifications

**Operation ID:** Subscribe

**Tags:**  
 - Subscription Creation

**Parameters:**  
 - **Name:** ueId  
**In:** path  
**Description:** Identity of the user  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'

**Request Body:**  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SdmSubscription'  
**Required/Optional:** true

**Responses:****'201':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SdmSubscription'**Headers:****Location:****description:** 'Contains the URI of the newly created resource, according to the structure:`{apiRoot}/nudm-sdm/<apiVersion>/{supi}/sdm-subscriptions/{subscriptionId}'`**Required/Optional:** true**Schema:****Type:** string**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'501':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error**Callbacks:****datachangeNotification:****'{request.body#/callbackReference}':****Method:** Post**Request Body:****Required/Optional:** true**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/ModificationNotification'**Responses:****'204':****Description:** Successful Notification response**'307':****Description:** Temporary Redirect**Content:****application/problem+json:****Schema:****Reference:**`'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'`**Headers:****Location:****Description:** 'Contains the new Callback URI of the target NF Service

Consumer (e.g. AMF) to which the request is redirected'

**Required/Optional:** true

**Schema:**

**Type:** string

'308':

**Description:** Permanent Redirect

**Content:**

**application/problem+json:**

**Schema:**

**Reference:**

'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

**Headers:**

**Location:**

**Description:** 'Contains the new Callback URI of the target NF Service Consumer (e.g. AMF) to which the request is redirected'

**Required/Optional:** true

**Schema:**

**Type:** string

'400':

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

'404':

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

'500':

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

'503':

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

**Default:**

**Description:** Unexpected error

## /{ueId}/sdm-subscriptions/{subscriptionId}

### delete:

**Summary:** unsubscribe from notifications

**Operation ID:** Unsubscribe

### Tags:

- Subscription Deletion

### Parameters:

- **Name:** ueId

**In:** path

**Description:** Identity of the user

**Required/Optional:** true

**Schema:**

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

- **Name:** subscriptionId

**In:** path

**Description:** Id of the SDM Subscription

**Required/Optional:** true

**Schema:**

**Type:** string

**Responses:**

- '204':
  - Description:** Successful response
- '400':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'
- '404':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'
- '500':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'
- '503':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'
- Default:**
  - Description:** Unexpected error

**patch:**

- Summary:** modify the subscription
- Operation ID:** Modify

**Tags:**

- Subscription Modification

**Parameters:**

- **Name:** ueId
  - In:** path
  - Description:** Identity of the user
  - Required/Optional:** true
  - Schema:**
    - Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
- **Name:** subscriptionId
  - In:** path
  - Description:** Id of the SDM Subscription
  - Required/Optional:** true
  - Schema:**
    - Type:** string
- **Name:** supported-features
  - In:** query
  - Description:** Features required to be supported by the target NF
  - Schema:**
    - Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

**Request Body:**

- Content:**
  - application/merge-patch+json:**
    - Schema:**
      - Reference:** '#/components/schemas/SdmSubsModification'
- Required/Optional:** true

**Responses:**

- '200':
  - Description:** Expected response to a valid request
  - Content:**
    - Application/JSON:**
      - Schema:**



```

    oneOf:
      - $ref: '#/components/schemas/SdmSubscription'
      - $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error

```

## /{ueId}/id-translation-result

### get:

**Summary:** retrieve a UE's SUPI or GPSI

**Operation ID:** GetSupiOrGpsi

### Tags:

- GPSI to SUPI Translation

### Parameters:

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** app-port-id  
**In:** query  
**Description:** Application port identifier  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/AppPortId'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header

**Description:** Validator for conditional requests, as described in RFC 7232, 3.3

**Schema:**

**Type:** string

**Responses:**

**'200':**

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

**Headers:**

**Cache-Control:**

**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**

**Type:** string

**ETag:**

**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3

**Schema:**

**Type:** string

**Last-Modified:**

**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2

**Schema:**

**Type:** string

**'400':**

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

**'404':**

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

**'500':**

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

**'503':**

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

**Default:**

**Description:** Unexpected error

## /{supi}/am-data/sor-ack

**put:**

**Summary:** Nudm\_Sdm Info service operation

**Operation ID:** SorAckInfo

**Tags:**

- Providing acknowledgement of Steering of Roaming

**Parameters:**

- **Name:** supi

**In:** path

**Description:** Identifier of the UE

```

    Required/Optional: true
    Schema:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
Request Body:
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/AcknowledgeInfo'

Responses:
  '204':
    Description: Successful acknowledgement
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error

```

## /{supi}/am-data/upu-ack

```

put:
  Summary: Nudm_Sdm Info for UPU service operation
  Operation ID: UpuAck

  Tags:
    - Providing acknowledgement of UE Parameters Update

  Parameters:
    - Name: supi
      In: path
      Description: Identifier of the UE
      Required/Optional: true
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  Request Body:
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/AcknowledgeInfo'

  Responses:
    '204':
      Description: Successful acknowledgement
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':

```

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{supi}/am-data/subscribed-snssais-ack

**put:**

**Summary:** Nudm\_Sdm Info operation for S-NSSAIs acknowledgement  
**Operation ID:** S-NSSAIs Ack

**Tags:**

- Providing acknowledgement of S-NSSAIs Update

**Parameters:**

- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**

**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/AcknowledgeInfo'

**Responses:**

'204':  
**Description:** Successful acknowledgement  
'400':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
'500':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
'503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{supi}/am-data/cag-ack

**put:**

**Summary:** Nudm\_Sdm Info operation for CAG acknowledgement  
**Operation ID:** CAG Ack

**Tags:**

- Providing acknowledgement of CAG Update

**Parameters:**

- **Name:** supi  
**In:** path

**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/AcknowledgeInfo'

**Responses:**  
**'204':**  
**Description:** Successful acknowledgement  
**'400':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
**'500':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
**'503':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'

**Default:**  
**Description:** Unexpected error

## /{supi}/am-data/update-sor

**Method:** Post

**Summary:** Nudm\_Sdm custom operation to trigger SOR info update  
**Operation ID:** Update SOR Info

**Tags:**  
- Trigger SOR info update

**Parameters:**  
- **Name:** supi  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SorUpdateInfo'

**Responses:**  
**'200':**  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SorInfo'

```

'400':
  Reference: 'TS29571_CommonData.yaml#/components/responses/400'
'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error

```

## /shared-data

### get:

**Summary:** retrieve shared data

**Operation ID:** GetSharedData

### Tags:

- Retrieval of shared data

### Parameters:

- **Name:** shared-data-ids  
**In:** query  
**Description:** List of shared data ids  
**Required/Optional:** true  
**Style:** form  
**Explode:** false  
**Schema:**  
**Reference:** '#/components/schemas/SharedDataIds'
- **Name:** supportedFeatures  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** If-None-Match  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string
- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

### Responses:

```

'200':
  Description: Expected response to a valid request
  Content:
    Application/JSON:
      Schema:

```

```

    Type: array
    Items:
      Reference: '#/components/schemas/SharedData'
    Min Items: 1
  Headers:
    Cache-Control:
      Description: Cache-Control containing max-age, as described in RFC 7234, 5.2

    Schema:
      Type: string
    ETag:
      Description: Entity Tag, containing a strong validator, as described in RFC
7232, 2.3
    Schema:
      Type: string
    Last-Modified:
      Description: Timestamp for last modification of the resource, as described
in RFC 7232, 2.2
    Schema:
      Type: string
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error

```

## /shared-data-subscriptions

```

Method: Post
Summary: subscribe to notifications for shared data
Operation ID: SubscribeToSharedData

Tags:
- Subscription Creation for shared data
Request Body:
Content:
  Application/JSON:
    Schema:
      Reference: '#/components/schemas/SdmSubscription'
  Required/Optional: true

Responses:
  '201':
    Description: Expected response to a valid request
    Content:
      Application/JSON:

```

```

    Schema:
      Reference: '#/components/schemas/SdmSubscription'
  Headers:
    Location:
      description: 'Contains the URI of the newly created resource,
according to the structure:
{apiRoot}/nudm-sdm/<apiVersion>/shared-data-subscriptions/{subscriptionId}'
      Required/Optional: true
      Schema:
        Type: string
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  Default:
    Description: Unexpected error
  Callbacks:
    datachangeNotification:
      '{request.body#/callbackReference}':
        Method: Post
        Request Body:
          Required/Optional: true
          Content:
            Application/JSON:
              Schema:
                Reference: '#/components/schemas/ModificationNotification'

  Responses:
    '204':
      Description: Successful Notification response
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error

```

## /shared-data-subscriptions/{subscriptionId}

```

delete:
  Summary: unsubscribe from notifications for shared data
  Operation ID: UnsubscribeForSharedData

  Tags:
    - Subscription Deletion for shared data

  Parameters:

```



- **Name:** subscriptionId  
**In:** path  
**Description:** Id of the Shared data Subscription  
**Required/Optional:** true  
**Schema:**  
**Type:** string

**Responses:**

'204':  
**Description:** Successful response  
'400':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
'404':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'  
'500':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
'503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

**patch:**

**Summary:** modify the subscription  
**Operation ID:** ModifySharedDataSubs

**Tags:**

- Subscription Modification

**Parameters:**

- **Name:** subscriptionId  
**In:** path  
**Description:** Id of the SDM Subscription  
**Required/Optional:** true  
**Schema:**  
**Type:** string  
- **Name:** supported-features  
**In:** query  
**Description:** Features required to be supported by the target NF  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

**Request Body:**

**Content:**  
**application/merge-patch+json:**  
**Schema:**  
**Reference:** '#/components/schemas/SdmSubsModification'  
**Required/Optional:** true

**Responses:**

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**

```

      oneOf:
        - $ref: '#/components/schemas/SdmSubscription'
        - $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '403':
      Reference: 'TS29571_CommonData.yaml#/components/responses/403'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error

```

## /group-data/group-identifiers

### get:

**Summary:** Mapping of Group Identifiers

**Operation ID:** GetGroupIdentifiers

### Tags:

- Group Identifiers

### Parameters:

- **Name:** ext-group-id  
**In:** query  
**Description:** External Group Identifier  
**Required/Optional:** false  
**Schema:**  
**Reference:** '#/components/schemas/ExtGroupId'
- **Name:** int-group-id  
**In:** query  
**Description:** Internal Group Identifier  
**Required/Optional:** false  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/GroupId'
- **Name:** ue-id-ind  
**In:** query  
**Description:** Indication whether UE identifiers are required or not  
**Required/Optional:** false  
**Schema:**  
**Type:** boolean  
**Default:** false
- **Name:** supported-features  
**In:** query  
**Description:** Supported Features  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- **Name:** If-None-Match

**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.2  
**Schema:**  
**Type:** string

- **Name:** If-Modified-Since  
**In:** header  
**Description:** Validator for conditional requests, as described in RFC 7232, 3.3  
**Schema:**  
**Type:** string

**Responses:**

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/GroupIdentifiers'

**Headers:**

**Cache-Control:**  
**Description:** Cache-Control containing max-age, as described in RFC 7234, 5.2

**Schema:**  
**Type:** string

**ETag:**  
**Description:** Entity Tag, containing a strong validator, as described in RFC 7232, 2.3  
**Schema:**  
**Type:** string

**Last-Modified:**  
**Description:** Timestamp for last modification of the resource, as described in RFC 7232, 2.2  
**Schema:**  
**Type:** string

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

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

'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:
        nudm-sdm: Access to the nudm-sdm API

schemas:
# COMPLEX TYPES:
DatasetNames:
  Type: array
  Items:
    Reference: '#/components/schemas/DataSetName'
  minItems: 2
  uniqueItems: true
SubscriptionDataSets:
  Type: object
  Properties:
    amData:
      Reference: '#/components/schemas/AccessAndMobilitySubscriptionData'
    smfSelData:
      Reference: '#/components/schemas/SmfSelectionSubscriptionData'
    uecSmfData:
      Reference: '#/components/schemas/UeContextInSmfData'
    uecSmsfData:
      Reference: '#/components/schemas/UeContextInSmsfData'
    smsSubsData:
      Reference: '#/components/schemas/SmsSubscriptionData'
    smData:
      Type: array
      Items:
        Reference: '#/components/schemas/SessionManagementSubscriptionData'
      minItems: 1
    traceData:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
    smsMngData:
      Reference: '#/components/schemas/SmsManagementSubscriptionData'
    lcsPrivacyData:
      Reference: '#/components/schemas/LcsPrivacyData'
    lcsMoData:
      Reference: '#/components/schemas/LcsMoData'
UeContextInSmsfData:
  Type: object
  Properties:
    smsfInfo3GppAccess:
      Reference: '#/components/schemas/SmsfInfo'
    smsfInfoNon3GppAccess:
      Reference: '#/components/schemas/SmsfInfo'
SmsfInfo:
  Type: object
  Required:
    - smsfInstanceId
    - plmnId
  Properties:

```

```

smsfInstanceId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
plmnId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
AccessAndMobilitySubscriptionData:
Type: object
Properties:
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  gpsis:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
  internalGroupIds:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
    minItems: 1
  vnGroupInfo:
    Type: object
    additionalProperties:
      Reference: '#/components/schemas/VnGroupData'
    minProperties: 1
  sharedVnGroupDataIds:
    Type: object
    additionalProperties:
      Reference: '#/components/schemas/SharedDataId'
    minProperties: 1
  subscribedUeAmbr:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AmbrRm'
  nssai:
    Reference: '#/components/schemas/Nssai'
  ratRestrictions:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  forbiddenAreas:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Area'
  serviceAreaRestriction:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
  coreNetworkTypeRestrictions:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/CoreNetworkType'
  rfspIndex:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndexRm'
  subsRegTimer:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSecRm'
  ueUsageType:

```

```
    Reference: '#/components/schemas/UeUsageType'
mpsPriority:
    Reference: '#/components/schemas/MpsPriorityIndicator'
mcsPriority:
    Reference: '#/components/schemas/McsPriorityIndicator'
activeTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSecRm'
dlPacketCount:
    Reference: '#/components/schemas/DlPacketCount'
sorInfo:
    Reference: '#/components/schemas/SorInfo'
sorInfoExpectInd:
    Type: boolean
sorafRetrieval:
    Type: boolean
    Default: false
sorUpdateIndicatorList:
    Type: array
    Items:
        Reference: '#/components/schemas/SorUpdateIndicator'
    minItems: 1
upuInfo:
    Reference: '#/components/schemas/UpuInfo'
micoAllowed:
    Reference: '#/components/schemas/MicoAllowed'
sharedAmDataIds:
    Type: array
    Items:
        Reference: '#/components/schemas/SharedDataId'
    minItems: 1
odbPacketServices:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/OdbPacketServices'
subscribedDnnList:
    Type: array
    Items:
        anyOf:
            - $ref: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
            - $ref: 'TS29571_CommonData.yaml#/components/schemas/WildcardDnn'
serviceGapTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
traceData:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
cagData:
    Reference: '#/components/schemas/CagData'
stnSr:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/StnSr'
cMsisdn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/CMsisdn'
nbIoTUEPriority:
    Reference: '#/components/schemas/NbIoTUEPriority'
nssaiInclusionAllowed:
    Type: boolean
```

```

    Default: false
  rgWirelineCharacteristics:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RgWirelineCharacteristics'

  rgTMBR:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Tmbr'
  ecRestrictionData:
    Reference: '#/components/schemas/EcRestrictionData'
  expectedUeBehaviourList:
    Reference: '#/components/schemas/ExpectedUeBehaviourData'
  maximumResponseTimeList:
    Type: array
    Items:
      Reference: '#/components/schemas/MaximumResponseTime'
    minItems: 1
  maximumLatencyList:
    Type: array
    Items:
      Reference: '#/components/schemas/MaximumLatency'
    minItems: 1
  primaryRatRestrictions:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  secondaryRatRestrictions:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  edrxParametersList:
    Type: array
    Items:
      Reference: '#/components/schemas/EdrxParameters'
    minItems: 1
  ptwParametersList:
    Type: array
    Items:
      Reference: '#/components/schemas/PtwParameters'
    minItems: 1
  iabOperationAllowed:
    Type: boolean
    Default: false
  nrV2xServicesAuth:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NrV2xAuth'
  lteV2xServicesAuth:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/LteV2xAuth'
  nrUePc5Ambr:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
  ltePc5Ambr:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
CagData:
  Type: object
  Required:

```

```

- cagInfos
Properties:
  cagInfos:
    Description: A map (list of key-value pairs where PlmnId serves as key) of CagInfo

    Type: object
    additionalProperties:
      Reference: '#/components/schemas/CagInfo'
    provisioningTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
CagInfo:
  Type: object
  Required:
  - allowedCagList
  Properties:
    allowedCagList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/CagId'
    cagOnlyIndicator:
      Type: boolean
SmfSelectionSubscriptionData:
  Type: object
  Properties:
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    subscribedSnssaiInfos:
      Type: object
      additionalProperties:
        Reference: '#/components/schemas/SnssaiInfo'
    sharedSnssaiInfosId:
      Reference: '#/components/schemas/SharedDataId'
SnssaiInfo:
  Type: object
  Required:
  - dnnInfos
  Properties:
    dnnInfos:
      Type: array
      Items:
        Reference: '#/components/schemas/DnnInfo'
      minItems: 1
DnnInfo:
  Type: object
  Required:
  - dnn
  Properties:
    dnn:
      anyOf:
        - $ref: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
        - $ref: 'TS29571_CommonData.yaml#/components/schemas/WildcardDnn'
    defaultDnnIndicator:
      Reference: '#/components/schemas/DnnIndicator'

```



```

lboRoamingAllowed:
  Reference: '#/components/schemas/LboRoamingAllowed'
iwkEpsInd:
  Reference: '#/components/schemas/IwkEpsInd'
dnnBarred:
  Type: boolean
Nssai:
  Type: object
  Required:
  - defaultSingleNssais
  Properties:
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    defaultSingleNssais:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    singleNssais:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    provisioningTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    additionalSnssaiData:
      Type: object
      additionalProperties:
        Reference: '#/components/schemas/AdditionalSnssaiData'
      minProperties: 1
  nullable: true
UeContextInSmfData:
  Type: object
  Properties:
    pduSessions:
      Description: A map (list of key-value pairs where PduSessionId serves as key) of
      PduSessions
      Type: object
      additionalProperties:
        Reference: '#/components/schemas/PduSession'
    pgwInfo:
      Type: array
      Items:
        Reference: '#/components/schemas/PgwInfo'
      minItems: 1
    emergencyInfo:
      Reference: '#/components/schemas/EmergencyInfo'
EmergencyInfo:
  Type: object
  oneOf:
  - required:
    - pgwFqdn

```

```

- required:
  - pgwIpAddress
Properties:
  pgwFqdn:
    Type: string
  pgwIpAddress:
    Reference: '#/components/schemas/IpAddress'
  smfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
PduSession:
  Type: object
  Required:
  - dnn
  - smfInstanceId
  - plmnId
  Properties:
  dnn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
  smfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  plmnId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
PgwInfo:
  Type: object
  Required:
  - dnn
  - pgwFqdn
  Properties:
  dnn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
  pgwFqdn:
    Type: string
  plmnId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
SessionManagementSubscriptionData:
  Type: object
  Required:
  - singleNssai
  Properties:
  singleNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  dnnConfigurations:
    Description: A map (list of key-value pairs where Dnn, or optionally the Wildcard
    DNN, serves as key) of DnnConfigurations
    Type: object
    additionalProperties:
      Reference: '#/components/schemas/DnnConfiguration'
  internalGroupIds:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
    minItems: 1
  vnGroupInfo:

```

```

Type: object
additionalProperties:
  Reference: '#/components/schemas/VnGroupData'
minProperties: 1
sharedVnGroupDataIds:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/SharedDataId'
  minProperties: 1
sharedDnnConfigurationsId:
  Reference: '#/components/schemas/SharedDataId'
odbPacketServices:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/OdbPacketServices'
traceData:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
sharedTraceDataId:
  Reference: '#/components/schemas/SharedDataId'
expectedUeBehavioursList:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/ExpectedUeBehaviourData'
  minProperties: 1
suggestedPacketNumDlList:
  Type: object
  additionalProperties:
    Reference: '#/components/schemas/SuggestedPacketNumDl'
  minProperties: 1
3gppChargingCharacteristics:
  Reference: '#/components/schemas/3GppChargingCharacteristics'
DnnConfiguration:
  Type: object
  Required:
    - pduSessionTypes
    - sscModes
  Properties:
    pduSessionTypes:
      Reference: '#/components/schemas/PduSessionTypes'
    sscModes:
      Reference: '#/components/schemas/SscModes'
    iwkEpsInd:
      Reference: '#/components/schemas/IwkEpsInd'
    5gQosProfile:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SubscribedDefaultQos'
    sessionAmbr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ambr'
    3gppChargingCharacteristics:
      Reference: '#/components/schemas/3GppChargingCharacteristics'
    staticIpAddress:
      Type: array
      Items:
        Reference: '#/components/schemas/IpAddress'
      minItems: 1

```

```

    maxItems: 2
  upSecurity:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UpSecurity'
  pduSessionContinuityInd:
    Reference: '#/components/schemas/PduSessionContinuityInd'
  invokeNefSelection:
    Type: boolean
  niddNefId:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/NefId'
  niddInfo:
    Reference: '#/components/schemas/NiddInformation'
  redundantSessionAllowed:
    Type: boolean
  acsInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AcsInfo'
  ipv4FrameRouteList:
    Type: array
    Items:
      Reference: '#/components/schemas/FrameRouteInfo'
    minItems: 1
  ipv6FrameRouteList:
    Type: array
    Items:
      Reference: '#/components/schemas/FrameRouteInfo'
    minItems: 1
  atsssAllowed:
    Type: boolean
    Default: false
NiddInformation:
  Type: object
  Required:
    - afId
  Properties:
    afId:
      Type: string
    gpsi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    extGroupId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ExternalGroupId'
IpAddress:
  Type: object
  oneOf:
    - required:
      - ipv4Addr
    - required:
      - ipv6Addr
    - required:
      - ipv6Prefix
  Properties:
    ipv4Addr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    ipv6Addr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'

```

```

    ipv6Prefix:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Prefix'
PduSessionTypes:
  Type: object
  Required:
    - defaultSessionType
  Properties:
    defaultSessionType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionType'
    allowedSessionTypes:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionType'
      minItems: 1
SscModes:
  Type: object
  Required:
    - defaultSscMode
  Properties:
    defaultSscMode:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SscMode'
    allowedSscModes:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SscMode'
      minItems: 1
      maxItems: 2
SmsSubscriptionData:
  Type: object
  Properties:
    smsSubscribed:
      Reference: '#/components/schemas/SmsSubscribed'
    sharedSmsSubsDataId:
      Reference: '#/components/schemas/SharedDataId'
SmsManagementSubscriptionData:
  Type: object
  Properties:
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    mtSmsSubscribed:
      Type: boolean
    mtSmsBarringAll:
      Type: boolean
    mtSmsBarringRoaming:
      Type: boolean
    moSmsSubscribed:
      Type: boolean
    moSmsBarringAll:
      Type: boolean
    moSmsBarringRoaming:
      Type: boolean
    sharedSmsMngDataIds:

```

```

    Type: array
    Items:
      Reference: '#/components/schemas/SharedDataId'
    minItems: 1
  traceData:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
SdmSubscription:
  Type: object
  Required:
    - nfInstanceId
    - callbackReference
    - monitoredResourceUris
  Properties:
    nfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    implicitUnsubscribe:
      Type: boolean
    expires:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    callbackReference:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceName:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    monitoredResourceUris:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      minItems: 1
    singleNssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    dnn:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
    subscriptionId:
      Type: string
    plmnId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
    immediateReport:
      Type: boolean
      Default: false
    report:
      Reference: '#/components/schemas/SubscriptionDataSets'
SdmSubModification:
  Type: object
  Properties:
    expires:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    monitoredResourceUris:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      minItems: 1
  ModificationNotification:

```

```

Type: object
Required:
  - notifyItems
Properties:
  notifyItems:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NotifyItem'
    minItems: 1
IdTranslationResult:
Type: object
Required:
  - supi
Properties:
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  supi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  gpsi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
AcknowledgeInfo:
Type: object
Required:
  - provisioningTime
Properties:
  sorMacIue:
    Reference: 'TS29509_Nausf_SoRProtection.yaml#/components/schemas/SorMac'
  upuMacIue:
    Reference: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/UpuMac'
  securedPacket:
    Reference: '#/components/schemas/SecuredPacket'
  provisioningTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
SorInfo:
Type: object
Properties:
  steeringContainer:
    Reference: '#/components/schemas/SteeringContainer'
  ackInd:
    Reference: 'TS29509_Nausf_SoRProtection.yaml#/components/schemas/AckInd'
  sorMacIausf:
    Reference: 'TS29509_Nausf_SoRProtection.yaml#/components/schemas/SorMac'
  countersor:
    Reference: 'TS29509_Nausf_SoRProtection.yaml#/components/schemas/CounterSor'
  provisioningTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
Required:
  - ackInd
  - provisioningTime
SharedDataIds:
Type: array
Items:

```

```

    Reference: '#/components/schemas/SharedDataId'
  minItems: 1
  uniqueItems: true
UpuInfo:
  Type: object
  Properties:
    upuDataList:
      Type: array
      Items:
        Reference: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/UpuData'
        minItems: 1
    upuRegInd:
      Reference: '#/components/schemas/UpuRegInd'
    upuAckInd:
      Reference: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/UpuAckInd'
    upuMacIausf:
      Reference: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/UpuMac'
    counterUpu:
      Reference: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/CounterUpu'
    provisioningTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - upuDataList
    - upuAckInd
    - upuRegInd
    - provisioningTime
SharedData:
  Type: object
  Required:
    - sharedDataId
  Properties:
    sharedDataId:
      Reference: '#/components/schemas/SharedDataId'
    sharedAmData:
      Reference: '#/components/schemas/AccessAndMobilitySubscriptionData'
    sharedSmsSubsData:
      Reference: '#/components/schemas/SmsSubscriptionData'
    sharedSmsMngSubsData:
      Reference: '#/components/schemas/SmsManagementSubscriptionData'
    sharedDnnConfigurations:
      Type: object
      additionalProperties:
        Reference: '#/components/schemas/DnnConfiguration'
    sharedTraceData:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
    sharedSnssaiInfos:
      Type: object
      additionalProperties:
        Reference: '#/components/schemas/SnssaiInfo'
    sharedVnGroupDatAs:
      Type: object
      additionalProperties:

```



```

        Reference: '#/components/schemas/VnGroupData'
      minProperties: 1
    TraceDataResponse:
      Type: object
      Properties:
        traceData:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
        sharedTraceDataId:
          Reference: '#/components/schemas/SharedDataId'
    SteeringContainer:
      oneOf:
        - type: array
          Items:
            Reference: 'TS29509_Nausf_SoRProtection.yaml#/components/schemas/SteeringInfo'

      minItems: 1
      - $ref: '#/components/schemas/SecuredPacket'
    GroupIdentifiers:
      Type: object
      Properties:
        extGroupId:
          Reference: '#/components/schemas/ExtGroupId'
        intGroupId:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
        ueIdList:
          Type: array
          Items:
            Reference: '#/components/schemas/UeId'
          minItems: 1
    VnGroupData:
      Type: object
      Properties:
        pduSessionTypes:
          Reference: '#/components/schemas/PduSessionTypes'
        dnn:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
        singleNssai:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        appDescriptors:
          Type: array
          Items:
            Reference: '#/components/schemas/AppDescriptor'
          minItems: 1
    AppDescriptor:
      Type: object
      Properties:
        osId:
          Reference: 'TS29519_Policy_Data.yaml#/components/schemas/OsId'
        appId:
          Type: string
    AdditionalSnssaiData:
      Type: object

```

```

Properties:
  requiredAuthnAuthz:
    Type: boolean
AppPortId:
  Type: object
  Properties:
    destinationPort:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
    originatorPort:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
LcsPrivacyData:
  Type: object
  Properties:
    lpi:
      Reference: '#/components/schemas/Lpi'
    unrelatedClasses:
      Type: array
      Items:
        Reference: '#/components/schemas/UnrelatedClass'
      minItems: 1
    plmnOperatorClasses:
      Type: array
      Items:
        Reference: '#/components/schemas/PlmnOperatorClass'
      minItems: 1
Lpi:
  Type: object
  Required:
    - locationPrivacyInd
  Properties:
    locationPrivacyInd:
      Reference: '#/components/schemas/LocationPrivacyInd'
    validTimePeriod:
      Reference: '#/components/schemas/ValidTimePeriod'
UnrelatedClass:
  Type: object
  Required:
    - nonExternalUnrelatedClass
  Properties:
    nonExternalUnrelatedClass:
      Reference: '#/components/schemas/NonExternalUnrelatedClass'
    externalUnrelatedClass:
      Reference: '#/components/schemas/ExternalUnrelatedClass'
    serviceTypeUnrelatedClasses:
      Type: array
      Items:
        Reference: '#/components/schemas/ServiceTypeUnrelatedClass'
      minItems: 1
PlmnOperatorClass:
  Type: object
  Required:
    - lcsClientClass

```

```

- lcsClientIds
Properties:
  lcsClientClass:
    Reference: '#/components/schemas/LcsClientClass'
  lcsClientIds:
    Type: array
    Items:
      Reference: '#/components/schemas/LcsClientId'
    minItems: 1
ValidTimePeriod:
Type: object
Properties:
  startTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  endTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
NonExternalUnrelatedClass:
Properties:
  lcsClientNonExternals:
    Type: array
    Items:
      Reference: '#/components/schemas/LcsClientNonExternal'
    minItems: 1
  afNonExternals:
    Type: array
    Items:
      Reference: '#/components/schemas/AfNonExternal'
    minItems: 1
LcsClientNonExternal:
Type: object
Required:
- lcsClientId
Properties:
  lcsClientId:
    Reference: '#/components/schemas/LcsClientId'
  allowedGeographicArea:
    Type: array
    Items:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
    minItems: 1
  privacyCheckRelatedAction:
    Reference: '#/components/schemas/PrivacyCheckRelatedAction'
  codeWordInd:
    Reference: '#/components/schemas/CodeWordInd'
  validTimePeriod:
    Reference: '#/components/schemas/ValidTimePeriod'
AfNonExternal:
Type: object
Required:
- afId
Properties:
  afId:

```

```

    Type: string
  allowedGeographicArea:
    Type: array
    Items:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
    minItems: 1
  privacyCheckRelatedAction:
    Reference: '#/components/schemas/PrivacyCheckRelatedAction'
  codeWordInd:
    Reference: '#/components/schemas/CodeWordInd'
  validTimePeriod:
    Reference: '#/components/schemas/ValidTimePeriod'
ExternalUnrelatedClass:
Properties:
  lcsClientExternals:
    Type: array
    Items:
      Reference: '#/components/schemas/LcsClientExternal'
    minItems: 1
  afExternals:
    Type: array
    Items:
      Reference: '#/components/schemas/AfExternal'
    minItems: 1
  lcsClientGroupExternals:
    Type: array
    Items:
      Reference: '#/components/schemas/LcsClientGroupExternal'
    minItems: 1
AfExternal:
Type: object
Properties:
  afId:
    Type: string
  allowedGeographicArea:
    Type: array
    Items:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
    minItems: 1
  privacyCheckRelatedAction:
    Reference: '#/components/schemas/PrivacyCheckRelatedAction'
  validTimePeriod:
    Reference: '#/components/schemas/ValidTimePeriod'
LcsClientExternal:
Type: object
Properties:
  allowedGeographicArea:
    Type: array
    Items:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
    minItems: 1

```

```

    privacyCheckRelatedAction:
      Reference: '#/components/schemas/PrivacyCheckRelatedAction'
    validTimePeriod:
      Reference: '#/components/schemas/ValidTimePeriod'
LcsClientGroupExternal:
  Type: object
  Properties:
    lcsClientGroupId:
      Reference: '#/components/schemas/ExtGroupId'
    allowedGeographicArea:
      Type: array
      Items:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
      minItems: 1
    privacyCheckRelatedAction:
      Reference: '#/components/schemas/PrivacyCheckRelatedAction'
    validTimePeriod:
      Reference: '#/components/schemas/ValidTimePeriod'
ServiceTypeUnrelatedClass:
  Type: object
  Required:
    - serviceType
  Properties:
    serviceType:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/LcsServiceType'
    allowedGeographicArea:
      Type: array
      Items:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
      minItems: 1
    privacyCheckRelatedAction:
      Reference: '#/components/schemas/PrivacyCheckRelatedAction'
    codeWordInd:
      Reference: '#/components/schemas/CodeWordInd'
    validTimePeriod:
      Reference: '#/components/schemas/ValidTimePeriod'
LcsMoData:
  Type: object
  Required:
    - allowedServiceClasses
  Properties:
    allowedServiceClasses:
      Type: array
      Items:
        Reference: '#/components/schemas/LcsMoServiceClass'
      minItems: 1
EcRestrictionData:
  Type: object
  Properties:
    ecModeARestricted:
      Type: boolean
    ecModeBRestricted:

```

```

    Type: boolean
ExpectedUeBehaviourData:
  Type: object
  Properties:
    stationaryIndication:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/StationaryIndication'
    communicationDurationTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
    periodicTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
    scheduledCommunicationTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ScheduledCommunicationTime'

    scheduledCommunicationType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ScheduledCommunicationType'

    expectedUmts:
      Type: array
      Items:
        Reference: 'TS29503_Nudm_PP.yaml#/components/schemas/LocationArea'
      minItems: 1
      Description: Identifies the UE's expected geographical movement. The attribute
is only applicable in 5G.
    trafficProfile:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TrafficProfile'
    batteryIndication:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BatteryIndication'
    validityTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
MaximumResponseTime:
  Type: object
  Required:
    - maximumResponseTime
  Properties:
    maximumResponseTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
    snssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    dnn:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
    validityTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
MaximumLatency:
  Type: object
  Required:
    - maximumLatency
  Properties:
    maximumLatency:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
    snssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    dnn:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
  validityTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
SuggestedPacketNumDl:
  Type: object
  Required:
    - suggestedPacketNumDl
  Properties:
    suggestedPacketNumDl:
      Type: integer
      Minimum: 1
    validityTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
FrameRouteInfo:
  Type: object
  Properties:
    ipv4Mask:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4AddrMask'
    ipv6Prefix:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Prefix'
SorUpdateInfo:
  Type: object
  Required:
    - vplmnId
  Properties:
    vplmnId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
EnhancedCoverageRestrictionData:
  Type: object
  Properties:
    plmnEcInfoList:
      Type: array
      Items:
        Reference: 'TS29503_Nudm_PP.yaml#/components/schemas/PlmnEcInfo'
      minItems: 1
EdrxParameters:
  Type: object
  Required:
    - ratType
    - edrxValue
  Properties:
    ratType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
    edrxValue:
      Type: string
      Pattern: '^([0-1]{4})$'
PtwParameters:
  Type: object
  Required:
    - operationMode
    - ptwValue
  Properties:
    operationMode:

```

```

        Reference: '#/components/schemas/OperationMode'
    ptwValue:
        Type: string
        Pattern: '^([0-1]{4})$'
    UeId:
        Type: object
        Required:
            - supi
        Properties:
            supi:
                Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
            gpsiList:
                Type: array
                Items:
                    Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
                minItems: 1
# SIMPLE TYPES:
    UeUsageType:
        Type: integer
    MpsPriorityIndicator:
        Type: boolean
    McsPriorityIndicator:
        Type: boolean
    DnnIndicator:
        Type: boolean
    LboRoamingAllowed:
        Type: boolean
    SmsSubscribed:
        Type: boolean
    3GppChargingCharacteristics:
        Type: string
    DlPacketCount:
        Type: integer
        Minimum: -1
    MicoAllowed:
        Type: boolean
    SharedDataId:
        Type: string
        Pattern: '^([0-9]{5,6})-.[+}$'
    IwkEpsInd:
        Type: boolean
    SecuredPacket:
        Type: string
        format: base64
    UpuRegInd:
        Type: boolean
    ExtGroupId:
        Type: string
        Pattern: '^extgroupid-[@]+@[^@]+$'
    NbIoTUEPriority:
        Type: integer
    CodeWord:

```



```

    Type: string
AfId:
    Type: string
LcsClientId:
    Type: string
# ENUMS:
DataSetName:
  anyOf:
    - type: string
      enum:
        - AM
        - SMF_SEL
        - UEC_SMF
        - UEC_SMSF
        - SMS_SUB
        - SM
        - TRACE
        - SMS_MNG
        - LCS_PRIVACY
        - LCS_MO
    - type: string
PduSessionContinuityInd:
  anyOf:
    - type: string
      enum:
        - MAINTAIN_PDUSESSION
        - RECONNECT_PDUSESSION
        - RELEASE_PDUSESSION
    - type: string
LocationPrivacyInd:
  anyOf:
    - type: string
      enum:
        - LOCATION_DISALLOWED
        - LOCATION_ALLOWED
    - type: string
PrivacyCheckRelatedAction:
  anyOf:
    - type: string
      enum:
        - LOCATION_NOT_ALLOWED
        - LOCATION_ALLOWED_WITH_NOTIFICATION
        - LOCATION_ALLOWED_WITHOUT_NOTIFICATION
        - LOCATION_ALLOWED_WITHOUT_RESPONSE
        - LOCATION_RESTRICTED_WITHOUT_RESPONSE
    - type: string
LcsClientClass:
  anyOf:
    - type: string
      enum:
        - BROADCAST_SERVICE
        - OM_IN_HPLMN
        - OM_IN_VPLMN
        - ANONYMOUS_LOCATION_SERVICE
        - SPECIFIC_SERVICE
    - type: string
LcsMoServiceClass:
  anyOf:
    - type: string

```

```
    enum:
      - BASIC_SELF_LOCATION
      - AUTONOMOUS_SELF_LOCATION
      - TRANSFER_TO_THIRD_PARTY
    - type: string
  OperationMode:
    anyOf:
      - type: string
      enum:
        - WB_S1
        - NB_S1
        - WB_N1
        - NB_N1
      - type: string
  SorUpdateIndicator:
    anyOf:
      - type: string
      enum:
        - INITIAL_REGISTRATION
        - EMERGENCY_REGISTRATION
      - type: string
  CodeWordInd:
    anyOf:
      - type: string
      enum:
        - CODEWORD_CHECK_IN_UE
        - CODEWORD_CHECK_IN_GMLC
      - type: string
```

## External Docs

**Description:** 3GPP TS 29.503 Unified Data Management Services, version 16.3.0

**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.503/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.503/)'



# CHAPTER 10

## Nudm\_UECM

---

The Nudm Context Management Service provides the NF consumer of the information related to UE's transaction information, allows the NF consumer to register and deregister its information for the serving UE in the UDM, and allows the NF consumer to update some UE context information in the UDM.

Reference: 3GPP TS 29.503 Unified Data Management Services, version 15.3.0

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## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '1.1.0.alpha-3'

**Title:** 'Nudm\_UECM'

**Description:** |

Nudm Context Management Service.

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## Servers

**URL:** '{apiRoot}/nudm-uecm/v1'

**Variables:**

**API Root:**

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

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

## Security

- oAuth2ClientCredentials:
  - nudm-uecm
- {}

## Paths

### {ueId}/registrations/amf-3gpp-access

**put:**

**Summary:** register as AMF for 3GPP access

**Operation ID:** 3GppRegistration

**Tags:**

- AMF registration for 3GPP access

**Parameters:**

- **Name:** ueId

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

**Schema:**

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

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/Amf3GppAccessRegistration'

**Required/Optional:** true

**Responses:**

'201':

**Description:** Created

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/Amf3GppAccessRegistration'

**Headers:**

**Location:**

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

{apiRoot}/nudm-uecm/v1/{ueId}/registrations/amf-3gpp-access'

**Required/Optional:** true

```

    Schema:
      Type: string
  '200':
    Description: OK
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/Amf3GppAccessRegistration'
  '204':
    Description: No content
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error
  Callbacks:
    deregistrationNotification:
      '{request.body#/deregCallbackUri}':
        Method: Post
        Request Body:
          Required/Optional: true
          Content:
            Application/JSON:
              Schema:
                Reference: '#/components/schemas/DeregistrationData'

  Responses:
    '204':
      Description: Successful Notification response
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error
  pcscfRestorationNotification:
    '{request.body#/pcscfRestorationCallbackUri}':
      Method: Post
      Request Body:
        Required/Optional: true
        Content:

```

**Application/JSON:****Schema:****Reference:** '#/components/schemas/PcscfRestorationNotification'**Responses:****'204':****Description:** Successful Notification response**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error**patch:****Summary:** Update a parameter in the AMF registration for 3GPP access**Operation ID:** Update3GppRegistration**Tags:**

- Parameter update in the AMF registration for 3GPP access

**Parameters:**

- **Name:** ueId

**In:** path**Description:** Identifier of the UE**Required/Optional:** true**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

- **Name:** supported-features

**In:** query**Description:** Features required to be supported by the target NF**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'**Request Body:****Content:****application/merge-patch+json:****Schema:****Reference:** '#/components/schemas/Amf3GppAccessRegistrationModification'**Required/Optional:** true**Responses:****'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PatchResult'**'204':****Description:** Expected response to a valid request

```

'400':
  Reference: 'TS29571_CommonData.yaml#/components/responses/400'
'403':
  Reference: 'TS29571_CommonData.yaml#/components/responses/403'
'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'422':
  Description: Unprocessable Request
  Content:
    application/problem+json:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error
get:
  Summary: retrieve the AMF registration for 3GPP access information
  Operation ID: Get3GppRegistration

Tags:
  - AMF 3Gpp-access Registration Info Retrieval

Parameters:
- Name: ueId
  In: path
  Description: Identifier of the UE
  Required/Optional: true
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
- Name: supported-features
  In: query
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

Responses:
'200':
  Description: Expected response to a valid request
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/Amf3GppAccessRegistration'
'400':
  Reference: 'TS29571_CommonData.yaml#/components/responses/400'
'403':
  Reference: 'TS29571_CommonData.yaml#/components/responses/403'
'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'

```

'503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{ueid}/registrations/amf-3gpp-access/dereg-amf

**Method:** Post

**Summary:** trigger AMF for 3GPP access deregistration

**Operation ID:** deregAMF

**Tags:**

- Trigger AMF for 3GPP access deregistration

**Parameters:**

- **Name:** ueId

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

**Schema:**

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

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'204':

**Description:** No content

'400':

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

'403':

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

'404':

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

'500':

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

'503':

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

**Default:**

**Description:** Unexpected error

## /{ueid}/registrations/amf-3gpp-access/pei-update

**Method:** Post

**Summary:** Updates the PEI in the 3GPP access registration context

**Operation ID:** PeiUpdate



**Tags:**

- PEI Update

**Parameters:**

- **Name:** ueId
  - In:** path
  - Description:** Identifier of the UE
  - Required/Optional:** true
  - Schema:**
    - Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**

- Content:**
  - Application/JSON:**
    - Schema:**
      - Reference:** '#/components/schemas/PeiUpdateInfo'
- Required/Optional:** true

**Responses:**

- '204':
  - Description:** No content
- '400':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'
- '403':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'
- '404':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'
- '500':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'
- '503':
  - Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'
- Default:**
  - Description:** Unexpected error

## /{ueld}/registrations/amf-non-3gpp-access

**put:**

- Summary:** register as AMF for non-3GPP access
- Operation ID:** Non3GppRegistration

**Tags:**

- AMF registration for non-3GPP access

**Parameters:**

- **Name:** ueId
  - In:** path
  - Description:** Identifier of the UE
  - Required/Optional:** true
  - Schema:**
    - Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**

- Content:**

```

    Application/JSON:
      Schema:
        Reference: '#/components/schemas/AmfNon3GppAccessRegistration'
    Required/Optional: true

Responses:
  '201':
    Description: Created
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/AmfNon3GppAccessRegistration'
      Headers:
        Location:
          description: 'Contains the URI of the newly created resource,
according to the structure:
{apiRoot}/nudm-uecm/v1/{ueId}/registrations/amf-non-3gpp-access'
          Required/Optional: true
          Schema:
            Type: string
  '200':
    Description: OK
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/AmfNon3GppAccessRegistration'
  '204':
    Description: No Content
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error
Callbacks:
  deregistrationNotification:
    '{request.body#/deregCallbackUri}':
      Method: Post
      Request Body:
        Required/Optional: true
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/DeregistrationData'

      Responses:

```

```

    '204':
      Description: Successful Notification response
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error
pcscfRestorationNotification:
  '{request.body#/pcscfRestorationCallbackUri}':
    Method: Post
    Request Body:
      Required/Optional: true
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/PcscfRestorationNotification'

```

**Responses:**

```

    '204':
      Description: Successful Notification response
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error

```

**patch:**

**Summary:** update a parameter in the AMF registration for non-3GPP access

**Operation ID:** UpdateNon3GppRegistration

**Tags:**

- Parameter update in the AMF registration for non-3GPP access

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** supported-features  
**In:** query  
**Description:** Features required to be supported by the target NF

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

**Request Body:**  
**Content:**  
**application/merge-patch+json:**  
**Schema:**  
**Reference:** '#/components/schemas/AmfNon3GppAccessRegistrationModification'  
**Required/Optional:** true

**Responses:**

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PatchResult'

'204':  
**Description:** Expected response to a valid request

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

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

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

'422':  
**Description:** Unprocessable Request  
**Content:**  
**application/problem+json:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

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

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

**Default:**  
**Description:** Unexpected error

**get:**  
**Summary:** retrieve the AMF registration for non-3GPP access information  
**Operation ID:** GetNon3GppRegistration

**Tags:**  
- AMF non-3GPP-access Registration Info Retrieval

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
- **Name:** supported-features  
**In:** query

**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'**Responses:****'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/AmfNon3GppAccessRegistration'**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'403':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error

## /{ueid}/registrations/smf-registrations

**get:****Summary:** retrieve the SMF registration information**Operation ID:** GetSmfRegistration**Tags:**

- SMF SmfRegistration

**Parameters:**- **Name:** ueId**In:** path**Description:** Identifier of the UE**Required/Optional:** true**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'- **Name:** single-nssai**In:** query**Content:****Application/JSON:****Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Snssai'- **Name:** dnn**In:** query**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Dnn'- **Name:** supported-features**In:** query

**{ueId}/registrations/smf-registrations/{pduSessionId}**

**Schema:**

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

**Responses:**

**'200':**

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

**'400':**

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

**'403':**

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

**'404':**

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

**'500':**

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

**'503':**

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

**Default:**

**Description:** Unexpected error

## **{ueId}/registrations/smf-registrations/{pduSessionId}**

**put:**

**Summary:** register as SMF

**Operation ID:** Registration

**Tags:**

- SMF SmfRegistration

**Parameters:**

- **Name:** ueId

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

**Schema:**

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

- **Name:** pduSessionId

**In:** path

**Description:** Identifier of the PDU session

**Required/Optional:** true

**Schema:**

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

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:****'201':****Description:** Created**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmfRegistration'**Headers:****Location:****description:** 'Contains the URI of the newly created resource, according to the structure:

{apiRoot}/nudm-uecm/v1/{ueId}/registrations/smf-registrations/{pduSessionId}'

**Required/Optional:** true**Schema:****Type:** string**'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmfRegistration'**'204':****Description:** No content**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'403':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error**Callbacks:****deregistrationNotification:****'{request.body#/deregCallbackUri}':****Method:** Post**Request Body:****Required/Optional:** true**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/DeregistrationData'**Responses:****'204':****Description:** Successful Notification response**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'

```

    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error
pcscfRestorationNotification:
  '{request.body#/pcscfRestorationCallbackUri}':
    Method: Post
    Request Body:
      Required/Optional: true
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/PcscfRestorationNotification'

Responses:
  '204':
    Description: Successful Notification response
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Description: Unexpected error
delete:
  Summary: delete an SMF registration
  Operation ID: SmfDeregistration

Tags:
  - SMF Deregistration

Parameters:
  - Name: ueId
    In: path
    Description: Identifier of the UE
    Required/Optional: true
    Schema:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  - Name: pduSessionId
    In: path
    Description: Identifier of the PDU session
    Required/Optional: true
    Schema:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  - Name: smf-set-id

```



**In:** query  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfSetId'

**Responses:**

**'204':**  
**Description:** Expected response to a valid request

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

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

**'422':**  
**Description:** Unprocessable Request  
**Content:**  
**application/problem+json:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

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

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

**Default:**  
**Description:** Unexpected error

**get:**

**Summary:** get an SMF registration  
**Operation ID:** RetrieveSmfRegistration

**Tags:**

- Retrieve SMF Registration

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

- **Name:** pduSessionId  
**In:** path  
**Description:** Identifier of the PDU session  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PduSessionId'

**Responses:**

**'200':**  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmfRegistration'

**'400':**

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'  
**'403':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'  
**'404':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'  
**'500':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
**'503':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{ueId}/registrations/smsf-3gpp-access

### put:

**Summary:** register as SMSF for 3GPP access  
**Operation ID:** 3GppSmsfRegistration

### Tags:

- SMSF registration for 3GPP access

### Parameters:

**Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

### Request Body:

**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsfRegistration'  
**Required/Optional:** true

### Responses:

**'201':**  
**Description:** Created  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsfRegistration'

### Headers:

**Location:**  
**description:** 'Contains the URI of the newly created resource, according to the structure:  
 {apiRoot}/nudm-uecm/v1/{ueId}/registrations/smsf-3gpp-access'  
**Required/Optional:** true  
**Schema:**  
**Type:** string

**'200':**

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

'204':

**Description:** No content

'400':

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

'403':

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

'404':

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

'500':

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

'503':

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

**Default:**

**Description:** Unexpected error

**delete:**

**Summary:** delete the SMSF registration for 3GPP access

**Operation ID:** 3GppSmsfDeregistration

**Tags:**

- SMSF Deregistration for 3GPP Access

**Parameters:**

- **Name:** ueId
- In:** path
- Description:** Identifier of the UE
- Required/Optional:** true
- Schema:**
- Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** smsf-set-id
- In:** query
- Schema:**
- Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfSetId'

**Responses:**

'204':

**Description:** Expected response to a valid request

'400':

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

'404':

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

'422':

**Description:** Unprocessable Request

**Content:**

**application/problem+json:**

**Schema:**

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

'500':

**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'  
**'503':**  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

**get:**  
**Summary:** retrieve the SMSF registration for 3GPP access information  
**Operation ID:** Get3GppSmsfRegistration

**Tags:**

- SMSF 3GPP access Registration Info Retrieval

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'
- **Name:** supported-features  
**In:** query  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

**Responses:**

**'200':**  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsfRegistration'

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

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

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

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

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

**Default:**  
**Description:** Unexpected error

## /{ueid}/registrations/smsf-non-3gpp-access

**put:**  
**Summary:** register as SMSF for non-3GPP access  
**Operation ID:** Non3GppSmsfRegistration

**Tags:**

- SMSF registration for non-3GPP access

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**

**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsfRegistration'  
**Required/Optional:** true

**Responses:**

'201':  
**Description:** Created  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsfRegistration'

**Headers:**

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

{apiRoot}/nudm-uecm/v1/{ueId}/registrations/smsf-non-3gpp-access'

**Required/Optional:** true  
**Schema:**  
**Type:** string

'200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/SmsfRegistration'

'204':  
**Description:** No content

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

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

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

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

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

**Default:**  
**Description:** Unexpected error

**delete:**

**Summary:** delete SMSF registration for non 3GPP access

**Operation ID:** Non3GppSmsfDeregistration

**Tags:**

- SMSF Deregistration for non-3GPP access

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'
- **Name:** smsf-set-id  
**In:** query  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfSetId'

**Responses:**

- '204':  
**Description:** Expected response to a valid request
- '400':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'
- '404':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'
- '422':  
**Description:** Unprocessable Request  
**Content:**  
**application/problem+json:**  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'
- '500':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'
- '503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'
- Default:**  
**Description:** Unexpected error

**get:**

**Summary:** retrieve the SMSF registration for non-3GPP access information

**Operation ID:** GetNon3GppSmsfRegistration

**Tags:**

- SMSF non-3GPP access Registration Info Retrieval

**Parameters:**

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'
- **Name:** supported-features  
**In:** query

**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'**Responses:****'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmsfRegistration'**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'403':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error

## /restore-pcscf

**Method:** Post**Summary:** Trigger the Restoration of the P-CSCF**Operation ID:** Trigger P-CSCF Restoration**Tags:**

- Trigger P-CSCF Restoration

**Request Body:****Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/TriggerRequest'**Required/Optional:** true**Responses:****'204':****Description:** Successful response**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'403':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'501':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/501'

'503':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'  
**Default:**  
**Description:** Unexpected error

## /{ueid}/registrations/location

### get:

**Summary:** retrieve the target UE's location information

**Operation ID:** GetLocationInfo

### Tags:

- UE Location Information retrieval

### Parameters:

- **Name:** ueId  
**In:** path  
**Description:** Identifier of the UE  
**Required/Optional:** true  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
- **Name:** supported-features  
**In:** query  
**Schema:**  
**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

### Responses:

- '200':  
**Description:** Expected response to a valid request  
**Content:**  
**Application/JSON:**  
**Schema:**  
**Reference:** '#/components/schemas/LocationInfo'
  - '400':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'
  - '403':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/403'
  - '404':  
**Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'
  - '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:
          nudm-uecm: Access to the nudm-uecm API

schemas:
# COMPLEX TYPES:
Amf3GppAccessRegistration:
  Type: object
  Required:
    - amfInstanceId
    - deregCallbackUri
    - guami
    - ratType
  Properties:
    amfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    purgeFlag:
      Reference: '#/components/schemas/PurgeFlag'
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    imsVoPs:
      Reference: '#/components/schemas/ImsVoPs'
    deregCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceNameDereg:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    pcscfRestorationCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceNamePcscfRest:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    initialRegistrationInd:
      Type: boolean
    guami:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    backupAmfInfo:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
      minItems: 1
    drFlag:
      Reference: '#/components/schemas/DualRegistrationFlag'

```

```

ratType:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
urrrpIndicator:
  Type: boolean
amfEeSubscriptionId:
  Type: string
epsInterworkingInfo:
  Reference: '#/components/schemas/EpsInterworkingInfo'
ueSrvccCapability:
  Type: boolean
nid:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Nid'
registrationTime:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
vgmlcAddressIpv4:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
vgmlcAddressIpv6:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
vgmlcFqdn:
  Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
Amf3GppAccessRegistrationModification:
  Type: object
Required:
  - guami
Properties:
  guami:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
  purgeFlag:
    Reference: '#/components/schemas/PurgeFlag'
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  imsVoPs:
    Reference: '#/components/schemas/ImsVoPs'
  backupAmfInfo:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
  epsInterworkingInfo:
    Reference: '#/components/schemas/EpsInterworkingInfo'
  ueSrvccCapability:
    Type: boolean
    nullable: true
EpsInterworkingInfo:
  Type: object
  Properties:
  epsIwkPgws:
    Description: A map (list of key-value pairs where Dnn serves as key) of EpsIwkPgws

    Type: object
  additionalProperties:
    Reference: '#/components/schemas/EpsIwkPgw'
EpsIwkPgw:

```

```

Type: object
Required:
  - pgwFqdn
  - smfInstanceId
Properties:
  pgwFqdn:
    Type: string
  smfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
AmfNon3GppAccessRegistration:
Type: object
Required:
  - amfInstanceId
  - imsVoPs
  - deregCallbackUri
  - guami
  - ratType
Properties:
  amfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  purgeFlag:
    Reference: '#/components/schemas/PurgeFlag'
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  imsVoPs:
    Reference: '#/components/schemas/ImsVoPs'
  deregCallbackUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  amfServiceNameDereg:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
  pcscfRestorationCallbackUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  amfServiceNamePcscfRest:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
  guami:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
  backupAmfInfo:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
    minItems: 1
  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  urrrIndicator:
    Type: boolean
  amfEeSubscriptionId:
    Type: string
  nid:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Nid'
  registrationTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'

```

```

vgmlcAddressIpv4:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
vgmlcAddressIpv6:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
vgmlcFqdn:
  Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
AmfNon3GppAccessRegistrationModification:
Type: object
Required:
  - guami
Properties:
  guami:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
  purgeFlag:
    Reference: '#/components/schemas/PurgeFlag'
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  imsVoPs:
    Reference: '#/components/schemas/ImsVoPs'
  backupAmfInfo:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
SmfRegistration:
Type: object
Required:
  - smfInstanceId
  - pduSessionId
  - singleNssai
  - plmnId
Properties:
  smfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  smfSetId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfSetId'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  singleNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  dnn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
  emergencyServices:
    Type: boolean
  pcscfRestorationCallbackUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  plmnId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
  pgwFqdn:
    Type: string
  epdgInd:

```

```

    Type: boolean
    Default: false
deregCallbackUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
registrationReason:
    Reference: '#/components/schemas/RegistrationReason'
registrationTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
SmsfRegistration:
Type: object
Required:
  - smsfInstanceId
  - plmnId
Properties:
smsfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
smsfSetId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfSetId'
supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
plmnId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
smsfMAPAddress:
    Reference: '#/components/schemas/E164Number'
smsfDiameterAddress:
    Reference: '#/components/schemas/NetworkNodeDiameterAddress'
registrationTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
DeregistrationData:
Type: object
Required:
  - deregReason
  - accessType
Properties:
deregReason:
    Reference: '#/components/schemas/DeregistrationReason'
accessType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
newSmfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
PcscfRestorationNotification:
Type: object
Required:
  - supi
Properties:
supi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
NetworkNodeDiameterAddress:
Type: object
Required:
  -name

```

```

- realm
Properties:
  name:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DiameterIdentity'
  realm:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DiameterIdentity'
TriggerRequest:
  Type: object
  Required:
  - supi
  Properties:
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
SmfRegistrationInfo:
  Type: object
  Required:
  - smfRegistrationList
  Properties:
    smfRegistrationList:
      Type: array
      Items:
        Reference: '#/components/schemas/SmfRegistration'
      minItems: 1
AmfDeregInfo:
  Type: object
  Required:
  - deregReason
  Properties:
    deregReason:
      Reference: '#/components/schemas/DeregistrationReason'
LocationInfo:
  Type: object
  Required:
  - registrationLocationInfoList
  Properties:
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    gpsi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    registrationLocationInfoList:
      Type: array
      Items:
        Reference: '#/components/schemas/RegistrationLocationInfo'
      minItems: 1
      maxItems: 2
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
RegistrationLocationInfo:
  Type: object
CmInfoReport:
  Type: object
  Required:
  - newCmInfoList

```

```

Properties:
  oldCmInfoList:
    Type: array
    Items:
      Reference: 'TS29518_Namf_EventExposure.yaml#/components/schemas/CmInfo'
    minItems: 1
    maxItems: 2
  newCmInfoList:
    Type: array
    Items:
      Reference: 'TS29518_Namf_EventExposure.yaml#/components/schemas/CmInfo'
    minItems: 1
    maxItems: 2
VgmlcAddress:
  Type: object
  Properties:
    vgmlcAddressIpv4:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    vgmlcAddressIpv6:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
    vgmlcFqdn:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
PeiUpdateInfo:
  Type: object
  Required:
    - pei
  Properties:
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
# SIMPLE TYPES:
PurgeFlag:
  Type: boolean
E164Number:
  Type: string
  Pattern: '^[0-9]{1,15}$'
DualRegistrationFlag:
  Type: boolean
# ENUMS:
ImsVoPs:
  anyOf:
    - type: string
      enum:
        - HOMOGENEOUS_SUPPORT
        - HOMOGENEOUS_NON_SUPPORT
        - NON_HOMOGENEOUS_OR_UNKNOWN
    - type: string
DeregistrationReason:
  anyOf:
    - type: string
      enum:
        - UE_INITIAL_REGISTRATION
        - UE_REGISTRATION_AREA_CHANGE
        - SUBSCRIPTION_WITHDRAWN
        - 5GS_TO_EPS_MOBILITY

```

- 5GS\_TO\_EPS\_MOBILITY\_UE\_INITIAL\_REGISTRATION
- REREGISTRATION\_REQUIRED
- SMF\_CONTEXT\_TRANSFERRED
- type: string

**RegistrationReason:****anyOf:**

- type: string
- enum:**
  - SMF\_CONTEXT\_TRANSFERRED
- type: string

## External Docs

**Description:** 3GPP TS 29.503 Unified Data Management Services, version 16.3.0

**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.503/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.503/)'